COMPREHENSIVE PLAN 2020

Effective – October 7, 2010
















REEDY CREEK
IMPROVEMENT DISTRICT
City of Bay Lake
City of Lake Buena Vista

REEDY CREEK IMPROVEMENT DISTRICT
City of Bay Lake & City of Lake Buena Vista

COMPREHENSIVE PLAN
2020

Adopted

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ACKNOWLEDGEMENTS

RCID Board of Supervisors
Thomas B. DeWolf, President
Donald R. Green
Wayne Schoolfield
Elizabeth A. Duda
Laurence Hames

RCID Planning Board
Jack Shannin, Chairman
Fred Harden
Thomas M. Moses
Bob Kohl
Jim Swan

City of BayLake
City Council
Orville Bell, Mayor
Stephen Boyd
Mark Krause
Patrick McCall
Todd Watzel

City of Lake Buena Vista
City Council
Charles Reed, Mayor
Maurice Bone
Terry Fay
John Raper
John “Mike” Sheehan

RCID Staff
Bill Warren
District Administrator

Ann Blakeslee
Deputy District Administrator

Kathryn Kolbo, P.E.
Manager, Planning and Engineering

Lee Pulham
Planner, Planning and Engineering

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Reedy Creek Improvement District
Comprehensive Plan

INTRODUCTION

INTRODUCTION

PURPOSE OF THE 2020 PLAN

The Reedy Creek Improvement District 2020 Plan is intended to provide the basis for future decisions regarding land use, development, conservation and infrastructure. It serves as the District's official policy for the use of both private and public lands, as well as the Comprehensive Plan for the Cities of Bay Lake and Lake Buena Vista. The Plan provides a framework for expansion of the unique uses in the District, while managing growth, protecting the environment, ensuring health and safety, and enhancing the quality of development. It continues the high standard of planning already undertaken and extends its purview ten years into the future.

The Plan's three overall functions are: 1) to govern the location and intensity of land use and development by providing the foundation for regulating proposed new projects; 2) to convey advance direction to the private sector by stating clearly the District's expectations for growth and conservation; and 3) to guide public investment in new facilities, such as roads, water systems, and water quality facilities.

The Plan is formulated to meet requirements of the Florida Local Government Comprehensive Planning and Development Regulation Act, found in Section 163 of Florida statutes and their administrative regulations. When it is adopted by the District and approved by the state, it will supersede the prior plan adopted in 1999.

BACKGROUND TO THE PLAN

Prior Planning Efforts

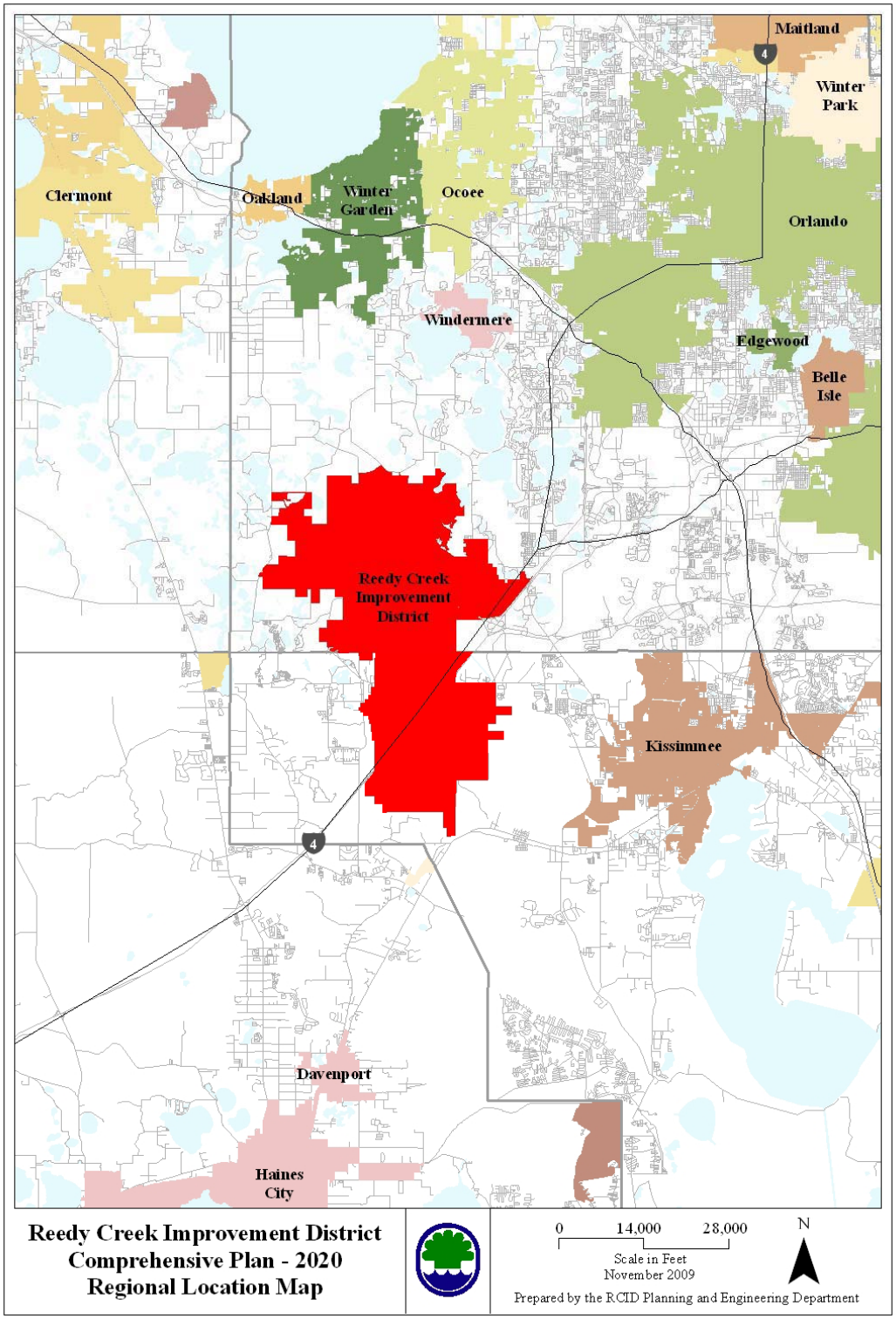
The Reedy Creek Improvement District was created by the Florida Legislature in 1967. It is coterminous with, and is intended to provide a full range of governmental and proprietary services for, Walt Disney World Resort. The District has been successful in anticipating, providing, and monitoring the adequacy of public facilities and roads, as well as in planning and regulating land use, development and environmental quality within its boundaries. Many of its efforts in this regard have been guided by Florida's Local Government Comprehensive Planning and Development Regulation Act.

This Comprehensive Plan is the culmination of several prior plans and programs. Its precursors include the original private plan for the resort, prepared in 1965 prior to applicability of public planning requirements. This early plan was the basis for the first increment of development, completed in 1971, including the Magic Kingdom theme park, several hotels and two golf courses. At the time, the District was more than 16 miles from the nearest urban development.

The first plan adopted by the District, however, was completed in 1974. It stipulated new environmental guidelines and included land use regulations. Like many of RCID's programs, this early plan could be considered state-of-the-art since it preceded the state's local planning legislation, enacted in 1975. The District modified the 1974 Plan to adhere to these state requirements in a 1979 revision. A shopping village, an additional hotel complex and Epcot were opened by 1982. Even when completed, these complexes still stood in relative isolation on the Interstate 4 Corridor. In 1988, the District, with still another theme park (Disney/MGM Studios) under construction, embarked on its most comprehensive effort, and adopted the resulting plan in 1991 and land development regulations in 1993.

In 1999, the resort contained four major theme parks and four minor theme parks, 26 hotels with over 25,000 rooms, and an abundance of related entertainment, retail and recreational facilities. Its developed area still covers only about a third of the overall site. As indicated in Figure 1-1, the edge of the Orlando urban area is now adjacent to the hotel and shopping complex on the District's eastern boundary.

Figure 1-1: Regional Location Map



Planning Methodology and Process

The 1991 Plan was rewritten in its entirely to produce the Plan that would take the District through to 2009. The EAR based amendments have been developed to respond to the Reedy Creek Improvement District Evaluation and Appraisal Report, adopted in 2008 by the District and the Cities of Bay Lake and Lake Buena Vista. Pursuant to state law and consistent with sound planning practice, the EAR first evaluated the 1999 Plan, as mandated by Florida Statutes, Section 163.3191(2). This provided an opportunity to assess the 1999 Plan's success in meeting its objectives, examined how well the Plan reflected current trends and conditions, and generally allowed the District to take a fresh look at local issues and determine the need for redirection. Taken as a whole, the District's 1999 Plan has been successfully implemented. The development maximums and infrastructure thresholds provide an excellent basis for reviewing development projects for consistency and concurrency with growth management requirements while providing the needed flexibility for landowners to respond to changing economic conditions and consumer preferences. Established Land Use categories are appropriate and sufficient land remains available for future development. This approach will continue with this Plan for the 2010 through 2020 planning horizon.

Following Plan adoption and state approval, the RCID Land Development Regulations will be revised to be consistent with the plan. These will contain updated standards for development and infrastructure. The Plan will be maintained and monitored via annual review and evaluation.

PLAN ORGANIZATION AND SUMMARY OF PLAN GOALS

The plan contains eight elements integrated to form an internally consistent policy framework for the future: land use, transportation, housing, infrastructure, conservation, recreation and open space, intergovernmental coordination and capital improvements. Each of these elements includes two components: Policies; and Supporting Data and Analysis. Additional data are presented in the Appendix.

The policy component of each element includes a major goal or goals, several objectives, sometimes arrayed under plan subelements, and numerous policies numbered individually. For ease of reference and revision, page numbers are preceded by an element number. Policy pages are noted with the letter "A" following the element number; supporting data and analysis pages are noted with the letter "B".

Nine goals provide the foundation for the plan. These include the following:

1. To preserve the integrity of the natural environment; maintain convenient, efficient public services; minimize threats to health and safety; and control and direct future development through policies, principles and standards that support the potential for economic benefit.

2. To continue to maintain a safe, convenient efficient, and balanced transportation system to meet the multi-modal capacity requirements of existing and future development.

3. To facilitate the provision of an adequate and affordable supply of housing that accommodates all current and future permanent residents of the district.

4. To facilitate the provision of an adequate supply of affordable housing for any unmet affordable housing need generated by employment growth within the district, to the extent required by Chapter 163.

5. To provide water, sewer, solid waste, and stormwater management services to existing and future development within its boundaries in the most efficient, cost-effective, and environmentally sound manner possible.

6. To protect and conserve the natural resources of the District.

7. To promote the creation of state-of-the-art vacation and recreational facilities; to maintain and expand access to these facilities; and to retain the visual, environmental, and psychological benefits provided by open space in the District.

8. To promote intergovernmental coordination with the two cities within its boundaries; the two counties in which it is located; other local governments in the immediate vicinity; and regional, state and federal governmental entities for the mutual benefit of all involved parties.

9. To provide adequate public facilities to existing and planned development areas in a manner that is concurrent with the impacts of such development and efficient and consistent with available financial resources.

Taken together, these goals, when achieved, will allow RCID to continue to preserve and enhance the unique setting of the Walt Disney World Resort.

Reedy Creek Improvement District
Comprehensive Plan

FUTURE LAND USE ELEMENT

Part A: Policies

INTRODUCTION

The Future Land Use Element establishes the District's policies for growth and development over the next ten years. It provides guidance in the location of specific uses, the density and intensity of those uses, and the overall quantity of development that may occur by 2020. The element includes two major components. The "Policy" component includes the goals, objectives, and policies formally adopted by the District as well as the Future Land Use Map and the Future Natural Resources Map. The "Supporting Data and Analysis" component provides the supporting data, descriptions of current and future conditions, and issue discussions.

GOALS, OBJECTIVES, AND POLICIES

GOAL

It is the goal of the Reedy Creek Improvement District to preserve the integrity of the natural environment; maintain convenient, efficient public services; minimize threats to health and safety; and control and direct future development through policies, principles, and standards that support the potential for economic benefit.

Objective 1

To implement a land use classification system that: (1) promotes the creation of innovative entertainment, recreational, and commercial facilities; (2) provides favorable conditions for the application of new and advanced concepts in recreation-oriented community design; (3) designates areas which have been determined to be marginally suitable or unsuitable for development based on soil, vegetative, hydrologic, and topographic conditions for nonurban uses; (4) directs development into those areas where the extension of public services and facilities can be achieved with minimal impacts on natural resources, as depicted on Figure 2-2; and (5) provides the basis for land development regulations.

Policy 1.1: The Commercial category, as shown on the Future Land Use Map, shall be used to meet the needs of people who work, visit, or stay in the District for commercial goods and services by promoting a wide range of commercial facilities and activities at convenient and readily accessible locations.

Policy 1.2: The Hotel/ Resort category, as shown on the Future Land Use Map, shall be used to denote existing resort hotels, resort hotels under construction, and vacant sites announced for possible resort hotel construction. Sites with this designation may support hotels, motels, other resort units (such as campsites, recreational vehicle parks, villas, and interval ownership units), and ancillary resort facilities (such as golf courses, conference centers, and equestrian areas).

Policy 1.3: The Entertainment category, as shown on the Future Land Use Map, shall be used to denote existing gated attractions and to identify areas for the potential expansion of these attractions.

Sites with this designation may also contain spectator sporting facilities.

Policy 1.4: The Support Facilities category, as shown on the Future Land Use Map, shall be used to accommodate public or private administrative, production, maintenance, storage, service, communication, and utility functions that support the entertainment, resort, and commercial activities in the District.

Policy 1.5: The Public Facilities category, as shown on the Future Land Use Map, shall be used to accommodate existing and future public services provided by the Reedy Creek Improvement District, including transportation, water, reclaimed water, wastewater, energy, fire protection, administration, and solid waste facilities.

Policy 1.6: The Mixed Use category, as shown on the Future Land Use Map, shall be used to permit innovative combinations of land use and development intensity, while ensuring that compatible uses and high aesthetic standards are maintained.

Policy 1.7: The Resource Management/Recreation category, as shown on the Future Land Use Map, shall be used to identify environmentally sensitive areas suited for low-intensity recreational use or landscape buffers. Where no other alternatives are feasible, access and utility corridors may be allowed when reviewed and approved in accordance with Future Land Use Policies 3.11 and 3.12.

Policy 1.8: The Conservation category, as shown on the Future Land Use Map, shall be used to preserve semi-aquatic natural habitats, environmentally sensitive uplands, and wetlands. Structural improvements crossing the area shall be limited to the maximum extent possible.

Policy 1.9: The Water category, as shown on the Future Land Use Map, shall be used to identify surface water bodies larger than 10 acres in size, including lakes, ponds, and canals.

Objective 2

To direct future development to appropriately designated areas on the Future Land Use Map, preserve the unique character of the RCID, and prevent blight and land use incompatibility in the District through the implementation of the adopted land development regulations. These regulations shall reflect the following innovative concepts: (1) development maximums, as shown in Table 2-1; (2) infrastructure thresholds, as shown in Table 2-3; (3) the vertical mixing of different land uses (such as hotel, retail, and entertainment) on a single development site; (4) the use of ferries, monorails, buses, and other alternatives to the automobile to provide access to development sites; and (5) the development of phased master-planned projects that incorporate multiple land uses (accommodations and entertainment).

Policy 2.1: All future development shall be required to be consistent with the future land use designations shown on Figure 2-1. Definitions of each future land use category are provided in the Land Use Element Data and Analysis document under the heading "Future Land Use Categories."

Policy 2.2: The subdivision of land shall be governed by provisions contained in the Land Development Regulations.

Policy 2.3: The amount of development that occurs through 2020 shall be regulated by a series of thresholds that are based on the capacity of infrastructure, inclusive of planned improvements, through the year 2020. These thresholds are presented in Table 2-3 of this element. (Amended by Ordinance/Resolution No. 510 adopted 07/28/2010 and Ordinance Nos. 128 and 125 adopted 07/14/2010)

Policy 2.4: The composition of land uses added through 2020 shall be generally guided by the estimated development maximums contained in Table 2-1 of this element. (Amended by Ordinance/Resolution No. 510 adopted 07/28/2010 and Ordinance Nos. 128 and 125 adopted 07/14/2010)

Policy 2.5: Prior to the approval of new development projects, the District shall ensure that:

(1) The cumulative quantity of development does not exceed the maximums set in Table 2-1 for any land use;

(2) The cumulative quantity of land that may be developed through 2020 shall not exceed the maximums set in Table 2-2 of the Future Land Use Element;

(3) The cumulative quantity of infrastructure required does not exceed the thresholds set in Table 2-3 for any service category listed;

(4) The level of service standards set in this Comprehensive Plan will not be reduced as a result of the proposed development; and

(5) No health or safety hazard will be created on any property within or adjacent to the District boundary as a result of the development.

(Amended by Ordinance/Resolution No. 510 adopted 07/28/2010 and Ordinance Nos. 128 and 125 adopted 07/14/2010)

Policy 2.6: New development shall occur in a manner that maximizes the use of existing and planned public facilities and services including existing and future electric power generation and transmission systems. (Amended by Ordinance/Resolution No. 510 adopted 07/28/2010 and Ordinance Nos. 128 and 125 adopted 07/14/2010)

Policy 2.7: The RCID shall continue to work with the major landowners in efforts to maintain and update hotel, recreation, and entertainment facilities to ensure that a high-quality environment is maintained, including use of new technologies for energy conservation and the reduction of greenhouse gas emissions. (Amended by Ordinance/Resolution No. 510 adopted 07/28/2010 and Ordinance Nos. 128 and 125 adopted 07/14/2010)

Policy 2.8: The Land Development Regulations shall continue to enable new and innovative concepts, designs, and ideas in recreation and community living, transportation, communication, utilities, and energy to be carried out in the District.

Policy 2.9: Land uses in Mixed Use areas that are potentially incompatible with one another shall be buffered through the provision of open space, berms, site design, or other suitable means.

Policy 2.10: All development adjacent to any collector, minor arterial, or major arterial street shall be buffered from that street by landscaping.

Policy 2.11: By January 1, 2011, the District shall develop noise compatibility guidelines for inclusion in the Land Development Regulations. These guidelines should ensure that a comfortable noise environment is maintained within and beyond District boundaries. (Amended by Ordinance/Resolution No. 510 adopted 07/28/2010 and Ordinance Nos. 128 and 125 adopted 07/14/2010)

Policy 2.12: The RCID shall require that at least 30 percent of the area within its boundaries but outside the designated Wildlife Management Conservation Area (WMCA) be set aside as open space. The area designated as open space shall be defined on an Open Space Map to be contained in the Recreation and Open Space Element of the Comprehensive Plan.

Policy 2.13: The RCID's Land Development Regulations shall require that all road signage meets minimum standards for public safety and that traffic flow and parking provisions meet the minimum standards and design criteria necessary for the safe movement of automobiles and pedestrians.

Policy 2.14 Except as indicated in Policy 2.15, the development maximums established by Table 2-1 shall not be changed without undergoing the plan amendment process described in Chapter 163.3184 and 163.3187, Florida statutes.

Policy 2.15: For purposes of calculating the quantity of development that may be built through 2015 and 2020, the District shall allow the permitted number of Hotel/Resort rooms and Other Resort Units to be interchanged without a plan amendment, provided that such action causes no net increase in infrastructure demand. Based on the level of service standards in the Infrastructure Element, Hotel/Resort room allowances may be converted to allowances for Other Resort Units at the rate of 0.67 Other Resort Unit per Hotel room. Other Resort Unit allowances may be converted to Hotel room allowances at a 1 to 1 ratio. (Amended by Ordinance/Resolution No. 510 adopted 07/28/2010 and Ordinance Nos. 128 and 125 adopted 07/14/2010)

Policy 2.16 The District shall encourage infill development on vacant parcels that will maximize the mix of existing uses and modes of transportation.

(Added by Ordinance/Resolution No. 510 adopted 07/28/2010 and Ordinance Nos. 128 and 125 adopted 07/14/2010)

Objective 3

To direct development in a manner which minimizes adverse impacts to natural resources as depicted in Figure 2-2, and which minimizes hazards to life and property, including flooding.

The following policies are in addition to those found in the Conservation Element:

Policy 3.1: The District shall abide by and enforce state and federal standards and regulations regarding

development in wetlands, areas of rare plant concentration, and the habitat of species that are endangered, threatened, or of special state concern.

Policy 3.2: Development in the 100-year flood plain shall generally be discouraged. Where such development does occur, it will only be permitted if:

(1) compensating storage is provided within the sub-basin;

(2) the flood-carrying capacity of the floodway is maintained with no increase in the flood level; and

(3) the first floor elevation of all habitable structures is placed at least one foot above the 100-year flood elevation.

Policy 3.3: The drainage impacts of all future projects shall be fully mitigated through a combination of improvements to canals and/or culverts, on-site retention and detention of stormwater, and maintenance of the flood carrying capacity of the floodway. Such improvements shall ensure that flow at the S-40 control structure does not exceed 3,282 cfs in a ten-year/three-day storm event, and that the drainage level-of-service standards established in the Infrastructure Element for the flood elevation on roads and parking areas are maintained. The necessary mitigation measures shall be determined by the RCID Planning and Engineering Department through the use of the RCID drainage model.

Policy 3.4: Wherever feasible, the RCID shall require drought-tolerant landscaping or the development of an irrigation system that accommodates recycled water for all landscaped areas within future development. (Amended by Ordinance/Resolution No. 482 adopted 09/24/2008 and Ordinance Nos. 121 and 122 adopted 09/22/2008)

Policy 3.5: A 200-foot radius cone of influence within which all new development shall be excluded except for water pumping and storage facilities shall be designated around each existing potable water well in the District. A 400-foot radius around each potable water well shall also be designated and the following land uses shall be excluded therein:

(1) Landfills;

(2) Bulk storage of materials on the Florida Substance List;

(3) Any activities that require the storage, use, or handling of agricultural, or chemical wastes; and

(4) Wastewater treatment plants and facilities.

Policy 3.6: Unavoidable impacts to the threatened plants shown in Appendix D shall be minimized.

Policy 3.7: In accordance with national environmental goals, the loss of wetlands or deterioration of their functional value will be avoided. Where wetland impacts are unavoidable, they shall be minimized with applicable mitigation measures. Mitigation may occur anywhere within the Reedy Creek Watershed, upon agreement with all applicable state, regional, and federal

agencies.

Policy 3.8: In accordance with the permits listed below, known collectively as the "Long Term Permits" (LTPs), impacts to a limited number of specific wetlands and animal species within the RCID have already been approved and may continue to occur. Mitigation for these impacts has already been finalized. The issuing agency and permit number for the LTPs are as follows:

Agency	**Permit Number**
South Florida Water Management District	#48-00714-S
Florida Dept of Environmental Regulation	#48, 49 & 532039239
Army Corps of Engineering	#199101901 (IP-GS)

Policy 3.9: All wetlands not approved for impacts under the Long Term Permits shall be protected by an undisturbed upland buffer a minimum of fifteen feet wide and an average of twenty-five feet wide. This buffer may be used for passive activities (e.g., pervious hiking trails) only when the activities will not adversely affect the function of the buffer or the wetland.

Policy 3.10: All wetlands not approved for impacts under the District's Long Term Permits shall be defined as Class I or Class II. All Class I wetlands shall be placed in the Conservation Land Use category. All Class II areas shall be placed in Resource Management/ Recreation Land Use category. The Land Development Regulations shall define use restrictions for Class I and II wetland areas which recognize their respective ecological values.

Policy 3.11: Development within the Resource Management/Recreation Land Use category shall generally be limited to nonstructural stormwater management and passive recreational facilities. Such uses will only be permitted when it is determined that the natural function of wetlands and wetland systems, including functions of water quality enhancement, flood protection, water storage, ground water recharge, and wildlife habitat will not be materially altered. As indicated in Policy 1.7, access and utility corridors may be allowed in RM/R areas where no other alternative is feasible. In such instances, the other provisions of this policy and Policy 3.12 will continue to apply.

Policy 3.12: Where appropriate, activities proposed in the Resource Management/Recreation Land Use category will require an Environmental Impact Report (EIR). The report shall at a minimum describe the proposed project, identify and describe the types of impacts expected/proposed and their significance, and identify conservation measures to minimize or compensate for adverse environmental impacts. Should the proposed activities negatively impact the Resource Management/Recreation Land Use, mitigation shall be considered as one means to compensate for loss of wetland function.

Policy 3.13: Where wetland boundaries have not been officially delineated by state and federal agencies, the RM/R designation shall serve as a conceptual indicator of wetland areas. In such cases, the precise delineation of wetlands shall be determined through site-specific studies and field determinations. If an area is designated RM/R and is later determined to be nonjurisdictional by state and federal agencies, the subject property owner may request reconsideration of the map designation. A formal FLUM amendment shall not be required to change the designation if the above circumstances apply.

Policy 3.14: The District shall encourage innovative approaches to wetland mitigation such as the Disney Wilderness Preserve mitigation project.

Policy 3.15: Site planning for new development in the RCID shall be conducted in a manner that makes the best possible use of climatic and topographic design factors.

Policy 3.16: In the designated Mixed Use areas, structural improvements shall be concentrated on upland sites. When development is proposed on upland sites adjacent to wetlands, such development shall not cause adverse impacts to the existing hydroperiod and hydrology of these wetlands.

Policy 3.17: Although there are no known sites of historical or archaeological significance in the District at this time, historic or archaeological surveys shall be required in the event that such resources are discovered in the District in the future. If development is proposed in an area where such resources are found present, the District shall require appropriate measures to conserve the resources prior to construction.

Policy 3.18: Hotel/Resort development that is surrounded by Wetland System Number 9.29 is limited to the footprint of the existing filled areas comprising ±4.7 acres and is limited to a maximum of sixty (60) Other Resort Units (i.e., 60 Keys) to be located on these existing filled areas. No wetland impacts will be permitted in Wetland System Number 9.29 without a plan amendment.

Objective 4

To reserve areas of vacant land specifically dedicated for the development of new and expanded public and support facilities so that the urban service needs generated by growth can be met.

Policy 4.1: New Support Facility areas shall be located adjacent to existing service areas, or as part of a development within the Mixed Use category.

Policy 4.2: The RCID shall maintain ongoing coordination with the major landowners regarding activities in the Support Facility areas, and shall work collaboratively with the landowners in the siting of new facilities.

Policy 4.3: Support facility areas should be clearly organized and well marked. Negative visual elements, such as open storage yards and construction debris, should be screened from public view.

Objective 5

To expand public services so that sufficient capacity is provided for additional development.

Policy 5.1: Public road improvements and other applicable measures shall be undertaken so that the District transportation system can accommodate the traffic volumes indicated in Table 2-3

without reductions in the adopted levels of service. These improvements and service levels shall be specified in the Transportation Element and Capital Improvements Element.

Policy 5.2: Potable water system improvements shall be undertaken concurrent with the impacts of development, so that up to 22.2 mgd can be pumped and distributed on an average day without a reduction in the adopted level of service. These improvements shall be as specified in the Potable Water Subelement and Capital Improvements Element.

Policy 5.3: Improvements to the sanitary sewer system shall be undertaken as needed so that wastewater can be collected, treated, and disposed on an average day without a reduction in the adopted levels of service. These improvements shall be as specified in the Sanitary Sewer Subelement and Capital Improvements Element. (Amended by Ordinance/Resolution No. 510 adopted 07/28/2010 and Ordinance Nos. 128 and 125 adopted 07/14/2010)

Policy 5.4: Improvements to the reclaimed water system shall be undertaken so that more than 95 percent of the District's treated effluent may be directed to the reclaimed system during dry weather.

Policy 5.5: Improvements to the solid waste collection and disposal system shall be undertaken as needed so that Class I solid waste can be collected and transferred to regional disposal facilities on an average day without a reduction in the adopted levels of service. These improvements shall be as specified in the Solid Waste Subelement and Capital Improvements Element. (Amended by Ordinance/Resolution No. 510 adopted 07/28/2010 and Ordinance Nos. 128 and 125 adopted 07/14/2010)

Policy 5.6: Improvements to the solid waste collection and disposal system should be undertaken so that the District creates the capacity for diverting 50 percent of the Class I waste generated within its boundaries from landfills.

Policy 5.7: All permits for development shall be conditioned on the availability of public facilities and services, including adequate potable water supplies, necessary to meet the adopted level of service standards in the RCID. Such facilities and services must be scheduled to be in place no later than the date on which the District anticipates issuing a certificate of occupancy. Prior to development approval and/or issuance of a building permit, the RCID Planning Department will consult with the applicable water supplier to determine whether adequate water supplies to serve the new development will be available no later than the date on which the District anticipates issuing a certificate of occupancy.

Objective 6

To discourage urban sprawl by restricting the extension of RCID road, water, sewer, solid waste, and drainage services beyond the District boundaries into areas designated for agricultural or open space uses on the adjacent County and City General Plans, and by allowing such extensions only when the areas are designated for urban uses on such plans.

Policy 6.1: The District shall maintain an affordable housing program, as defined in the Housing Element of this Comprehensive Plan, which ensures that new housing opportunities are provided in

proximity to the District's employment centers.

Policy 6.2: The RCID's adopted Land Development Regulations shall continue to promote the development of a diverse range of land uses within District boundaries.

Policy 6.3: The RCID shall not deannex any developed property unless the proposed use is consistent with the receiving government's comprehensive plan, and there is an interlocal agreement in place that addresses public facility and service issues.

Policy 6.4: The extension of District water and sewer lines to property outside District boundaries shall only be permitted if the area to be served is designated for urban land uses on the adjacent jurisdiction's Future Land Use Map, and if development of the area would be consistent with the goals, objectives, and policies of the receiving jurisdiction's Comprehensive Plan.

Policy 6.5 All annexations shall comply fully with the provisions of Chapter 171, F.S. In the event that annexation is proposed, an annexation report shall be submitted demonstrating that the District can meet the traffic, water, sewer, solid waste, electric power generation and transmission, and stormwater management demand generated by the most intensive uses that could be permitted in the area to be annexed. (Amended by Ordinance/Resolution No. 510 adopted 07/28/2010 and Ordinance Nos. 128 and 125 adopted 07/14/2010)

Policy 6.6 Adjustments to the development and infrastructure thresholds in Tables 2-1, 2-2, and 2-3 may be permitted in the event that additional land is annexed to the District. Such adjustments would require a formal plan amendment.

Objective 7

To update the plan in response to changing conditions, objectives, consumer preferences, laws and regulations, and to implement its policies.

Policy 7.1: The Future Land Use Map and Future Land Use Element policies shall be reviewed as needed, with a formal review conducted not less than once a year. The purpose of the review shall be to determine if the map and policies still accurately reflect expectations and objectives for the future, and to recommend appropriate changes through the Plan amendment process.

Policy 7.2: The Comprehensive Plan shall undergo an evaluation and appraisal at least once every five years in response to changing development conditions, expectations, and objectives.

Inapplicable Rule 9J-5 Objectives

The following Rule 9J-5.006(3)(b) objectives are not relevant:

2. Encourage the redevelopment and renewal of blighted areas.

All facilities in the District are in good physical condition and are regularly maintained and updated. There is no blight.

3. *Encourage the reduction or elimination of uses that are inconsistent with the community's character and future land uses.*

   Because the District has developed according to a master land use plan since its inception, and because most of the District is under single ownership, there are no instances of land use incompatibility within its boundaries. Incompatibility has been avoided by strictly adhering to the master plan. Potential incompatibility problems could arise in the future along the boundary between RCID and the unincorporated areas of the counties. These problems are addressed in the Intergovernmental Coordination Element.

5. *Coordinate coastal area population densities with the appropriate local or regional hurricane evacuation plan, when applicable.*

   The District is not in a coastal area; therefore, the objective does not apply.

6. *Coordinate future land uses by encouraging the elimination or reduction of uses inconsistent with any interagency hazard mitigation report recommendations that the local government determines to be appropriate.*

   There are no applicable interagency hazard mitigation reports.

11. *Ensure the availability of dredge spoils disposal sites for coastal counties and municipalities that have spoils disposal responsibilities.*

    The RCID and its two cities do not have dredge spoils disposal responsibilities.

Rule 9J-5 Objectives Discussed in Other Elements

Rule 9J-5.006(3)(b)(7) *(Coordinate with any appropriate resource planning and management plan prepared pursuant to Chapter 380, Florida Statutes, and approved by the Governor and Cabinet)* is addressed in the Intergovernmental Coordination Element.

Table 2-1: Maximum Development – Through 2020

Uses	Plan Designation Where Use Is Permitted	2010 Base Condition	2015 5 Year Increment Maximum	2020 5 Year Increment Maximum	2020 10 Year Increment Maximum
Hotel/Motel	Mixed Use Hotel/ Resort	28,267 Keys	6,300 Keys	5,000 Keys	11,300 Keys
Hotel/Motel	Mixed Use 180 Acres of Western Beltway Property (Parcel Id Numbers: 21-24-27-0000-00-003, 21-24-27-0000-00-005, 21-24-27-0000-00-008)		1,757 Keys		1,757 Room (Subset of 11,300 Hotel/Motel Keys)
Other Resort Unit	Mixed Use Hotel/Resort	5,000 Keys	4,000 Keys	4,900 Keys	8,900 Keys
Other Resort Unit	Mixed Use 180 Acres of Western Beltway Property (Parcel Id Numbers: 21-24-27-0000-00-003, 21-24-27-0000-00-005, 21-24-27-0000-00-008)			1,259 Units	1,259 Units (Subset of 8,900 Other Resort Keys)
Golf Courses	Mixed Use Hotel/Resort	81 Holes	0 Holes	18 Holes	18 Holes
Office	Mixed Use Commercial	882,000 SF	100,000 SF	50,000 SF	150,000 SF
Retail/ Restaurant	Mixed Use Commercial	897,887 SF	560,000 SF	275,000 SF	835,000 SF
Office/ Retail/ Restaurant	Mixed Use 180 Acres of Western Beltway Property (Parcel Id Numbers: 21-24-27-0000-00-003, 21-24-27-0000-00-005, 21-24-27-0000-00-008)				450,000 SF (Subset of 150,000 SF Office and 835,000 SF Retail/ Restaurant)
Major Theme Parks	Mixed Use Entertainment	4 Parks	0 Park	1 Parks	1 Parks
Minor Theme Parks	Mixed Use Entertainment	3 Parks	1 Parks	1 Park	2 Parks

(Amended by Ordinance/Resolution No. 510 adopted 07/28/2010 and Ordinance Nos. 128 and 125 adopted 07/14/2010)

Table 2-2: Projected Land Area To Be Developed Through 2020

Use	2010 Average Density	2020 Development Maximums	2020 Based on 2010 Density
Hotel/Motel	13.9 Keys/Acre	11,300 Keys	813
Other Resort Unit	13.9 Keys/Acre	8,900 Keys	640
Golf Course	13.1 Acres/Hole	18 Holes	236
Office	0.31 FAR	150,000 SF	12
Retail/Restaurant	0.14 FAR	835,000 SF	146
Major Theme Park	377 Acres/Park	1 Park	377
Minor Theme Park	107 Acres/Park	2 Parks	214
Support Facilities/ Public Facilities	-	-	250
TOTAL			2,688

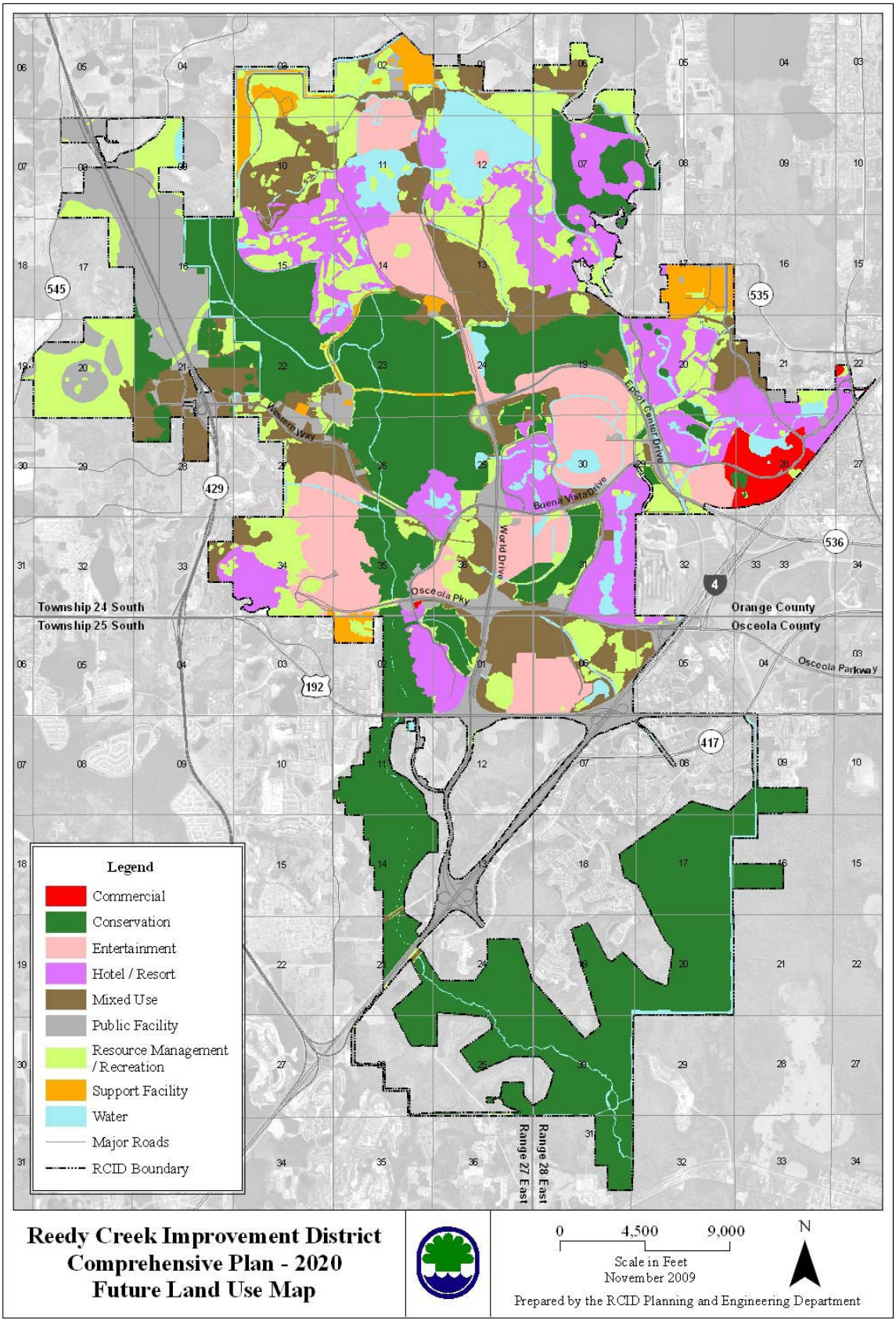
(Amended by Ordinance/Resolution No. 510 adopted 07/28/2010 and Ordinance Nos. 128 and 125 adopted 07/14/2010)

Table 2-3: Development Thresholds for Mixed Use Areas

Service	Unit of Measurement	2010 Base Condition	2015 5 Year	2020 10 Year	2020 Increment Maximum
Traffic	trips/average day	238,015	343,774	436,295	198,280
Water	mgd/average day	16.23	19.607	23.922	7.692 mgd
Sanitary Sewer	mgd/average day	11.641	14.398	18.263	6.622 mgd
Solid Waste (transfer station weight only)	tons/average day	177	224	274	97 tons/day
Drainage	CFS at S-40	3,282	3,282	3,282	0
Neighborhood Park	acre/1,000 residents	2.0	2.0	2.0	0
Community Park	acre/10,000 residents	20.0	20.0	20.0	0

(Amended by Ordinance/Resolution No. 510 adopted 07/28/2010 and Ordinance Nos. 128 and 125 adopted 07/14/2010)

Figure 2-1: Future Land Use Map Through 2020



Reedy Creek Improvement District
Comprehensive Plan

FUTURE LAND USE ELEMENT

Part B: Supporting Data and Analysis

PURPOSE

The Future Land Use Element provides the framework for decisions regarding growth in the Reedy Creek Improvement District (RCID). The element discusses the factors affecting growth and presents goals, objectives, and policies for how and where development may occur. Its cornerstone is the Future Land Use Map, a graphic depiction of planned land uses through the year 2020.

The Future Land Use Map (Figure 2-1) is based on an evaluation of the suitability of land for development and the availability of public services and infrastructure to accommodate growth in the District. The map also reflects the unique role of the District as a service provider to one principal landowner, as well as that landowner's unique role as a service provider in the international market for resort and entertainment facilities. Whereas growth in cities and counties is driven by increases in local population and employment, growth in the RCID is driven by the demand for leisure-time activities in the United States and abroad.

Although the Future Land Use Element is just one of the eight elements that comprise the RCID Comprehensive Plan, it is the element that sets the direction for the other seven. It provides the basis for future road and utility plans through the year 2020. It is the foundation of the District's Land Development Regulations and its capital improvement plans. Its policies ensure that future development will occur in a manner that minimizes conflict with the surrounding natural and built environment, and protects the health and safety of future residents, visitors, and employees.

The RCID differs substantially from other Florida local governments in its land use mix, economic base, and pattern of land ownership. Accordingly, this element has been written to reflect those special circumstances. Where the element departs from the format and content required by Rule 9J-5, Florida Administrative Code, justification for the alternative approach is provided. Such departures are made in the population projections and in the definition of land use categories.

The Future Land Use Element builds upon the 1979, 1984, 1991, and 1999 Comprehensive Plans for the District; it incorporates new data as required by Rule 9J-5 and Chapter 163, and provides new policies to ensure consistency with the regional policy plan and the state plan. As in previous plans for the District, the flexibility to adapt to changing technology, values, consumer preferences, and development forms is maintained. This flexibility is essential to maintain the community's position as one the world's premiere resort destinations. The Reedy Creek Improvement District Land Development Regulations provide the legal mechanism to ensure that a quality environment is maintained within the flexible framework prescribed in the Comprehensive Plan.

The element begins with a description of existing land use: that is, the type and location of development and open space in the District. The character of the District and adjoining land is described in maps, tables, and text. The element continues with a discussion of the factors affecting future land use in the District, looking first at the suitability of land for development, second at the availability of infrastructure and public services, and third at the demand for land based on expected growth. The Future Land Use Map is then described. For each area designated on the map, a range of permitted uses and development intensities is set forth. Goals, objectives, and policies are presented in the Policies component preceding the Data and Analysis component. Relevant background data are contained in a series of appendices.

EXISTING LAND USE

HISTORY

The Reedy Creek Improvement District and the cities of Bay Lake and Lake Buena Vista were created by the Florida Legislature in 1967 to provide a full range of government services to the original 27,400-acre site that was to become the Walt Disney World Resort. The cities were given most powers common to other municipalities in the state, while the District was authorized to provide a full range of urban services, including the adoption of zoning and building codes.

Initial phases of the Disney plans announced at that time included: a theme park modeled after Disneyland in Southern California; a planned city with a balance of commercial, industrial, and residential uses; and a greenbelt to buffer the community from development on its periphery. The first phase of the project, the Magic Kingdom Theme Park, opened in 1971, accompanied in Bay Lake by two resort hotels and a golf course and in Lake Buena Vista by several franchised hotels. The Walt Disney World Shopping Village opened in 1975. A second theme park, Epcot opened in 1982 as a showcase for technologies and cultures of the world instead of the planned city originally envisioned.

Rapid expansion occurred during the late 1980s and early 1990s. New resort hotels and attractions (including Disney/MGM Studios) were constructed in both Bay Lake and Lake Buena Vista. Nearly 10,000 hotel rooms were added between 1988 and 1992. Roads and utilities in the District were expanded to accommodate the increased level of development and support facilities for the attractions, and the resorts grew significantly. Facilities and services were provided concurrently with development.

Development continued into the mid to late 1990s, with another 7,000 hotel rooms added between 1994 and 1997. A major sports complex was added in 1997. A fourth major theme park (Disney's Animal Kingdom) opened in 1998. Walt Disney World Village evolved into Downtown Disney, more than doubling in size with new attractions and amenities. An extensive network of infrastructure improvements accompanied the expansion, including construction of Osceola Parkway and the extension of World Drive to I-4. At the same time, nearly 5,000 acres of the District were de-annexed to Osceola County for the development of Celebration, a neo-traditional community containing housing, recreation, and employment centers.

Another 4,489 hotel rooms were added from 1999 and 2002, after which development slowed considerably and the redevelopment of existing resorts far outpacing the construction of new ones. In total 1,233 hotel rooms were demolished or extensively remodeled to be replaced with 1,968 interval ownership units. An additional 892 interval ownership units were also added to existing resorts bringing the net number of rooms added during the last ten years to 6,116. Although no new parks were opened from 1999 through 2008, a number of major attractions were added to existing parks. The River Country Water Park was closed and the Eagle Pines Golf Course was deannexed into Orange County and re-graded for the construction of a mixed residential and fractional ownership development.

COMMUNITY CHARACTER

Because of the District's size and the character of a large part of its land, Walt Disney World has always been perceived as a free-standing community, buffered by forested open space from surrounding agricultural and

urban areas. The community's setting enhances the sense of arrival for visitors and screens the community from development on its periphery.

When the Magic Kingdom opened in 1971, it was more than 16 miles from the nearest urban development. Today, the edge of the Orlando urban area is adjacent to the District's east side and there are new communities planned or under construction to the north, west, and south of District boundaries. The perimeter of the District has evolved from a tourist-oriented landscape to a full-service community with year-round housing, community-oriented shopping, and non-service industry employment.

Within the District boundaries, distinct activity areas have developed. These areas, illustrated in Figure 2-2, are generally separated from each other by forested open space and are connected by limited access roads.

Magic Kingdom Resort Area

The Magic Kingdom area is the District's oldest and perhaps most familiar activity area, consisting of the Magic Kingdom theme park and associated parking areas, four resorts with a total of 3,455 rooms and convention space, two 18-hole golf courses, a 9-hole par 3 course, an auto speedway, and a service utility area that includes warehouse, maintenance, administrative, construction landfill, and production facilities. Development is generally oriented in a concentric ring around Seven Seas Lagoon, a recreational lake providing swimming and water sports activities for the resorts and transportation (ferries) to the Magic Kingdom. A monorail loop follows the lake's perimeter, linking the hotels and the Magic Kingdom and providing access to the transportation transfer station for connections to Epcot. Many of the individual development sites are separated from one another by open space, landscaping, and wetlands.

Fort Wilderness Resort Area

The Fort Wilderness activity area includes the Wilderness Lodge Resort and Annex, Fort Wilderness campgrounds, Osprey Ridge Golf Course, and the City of Bay Lake residential area. The area is densely wooded and maintains a low profile relative to other activity areas in the District. The environment creates a more rustic vacation experience for visitors and emphasizes outdoor activities, such as hiking and horseback riding. Wilderness Lodge and Annex are modeled after the national park lodges of the American West and have 909 rooms. The 700 acres Fort Wilderness resort includes 799 campsites that accommodate recreational vehicles or tents and 409 cabins, comfort stations with toilets, showers and laundry facilities, convenience stores and recreational facilities, and an entertainment hall with a dining establishment.

Epcot Resort Area

The Epcot area includes Epcot and Disney's Hollywood Studios theme parks, associated parking and support facility areas, five resorts with 6,786 rooms and convention space, and a retail, entertainment and dining complex. Development is oriented around a series of lakes, many of which are interconnected by canals. Epcot is the most prominent feature in this area; its 18-story geo-sphere has become a universally recognized landmark. Recently added to Epcot is a wellness center for Disney's cast members and their families. Disney's Hollywood Studios consists of a theme park oriented to the television and motion picture industries. Fantasia Miniature Golf with two courses is also located in the Epcot / Studios resort area.

Downtown Disney Resort Area

Downtown Disney, a retail, dining, and entertainment complex set on the shores of Village Lake, is the most publicly visible and multi-functional area in the District. Downtown Disney includes three architecturally unique districts—the Marketplace, Pleasure Island, and Westside. An 18-hole golf course located to the west of Downtown Disney winds its way through a number of area resorts. To the south of Downtown Disney are several architecturally distinct office buildings, including the 400,000 square foot Team Disney Administration Building and the Walt Disney World Casting Center.

Beyond Downtown Disney, the area includes 8,587 resort rooms and convention space. The Downtown Disney resort area also includes Typhoon Lagoon (a themed water park), a walk-in medical care facility and the residential portion of the City of Lake Buena Vista.

Lake Buena Vista includes the Administration Area located adjacent to CR 535 about three miles north of Interstate 4. This area receives few visitors and is primarily used for production, maintenance, engineering, and administrative activities. It consists of large, low-rise warehouse structures, parking lots, office buildings, communications equipment, electrical substations, outdoor work areas, an employee softball field and a child care facility.

Animal Kingdom Resort Area

The Animal Kingdom area is located west of Reedy Creek at the end of Osceola Parkway. It includes the Animal Kingdom theme park and the Blizzard Beach themed water park. It includes 9,435 resort rooms. Support service areas are located to the north and south of the Animal Kingdom Theme Park. The service area to the north contains a long-established complex of public facilities such as the wastewater treatment plant, environmental services lab, recycling center, and tree farm. The service area to the south was constructed to support Animal Kingdom and includes support buildings, as well as a child care facility.

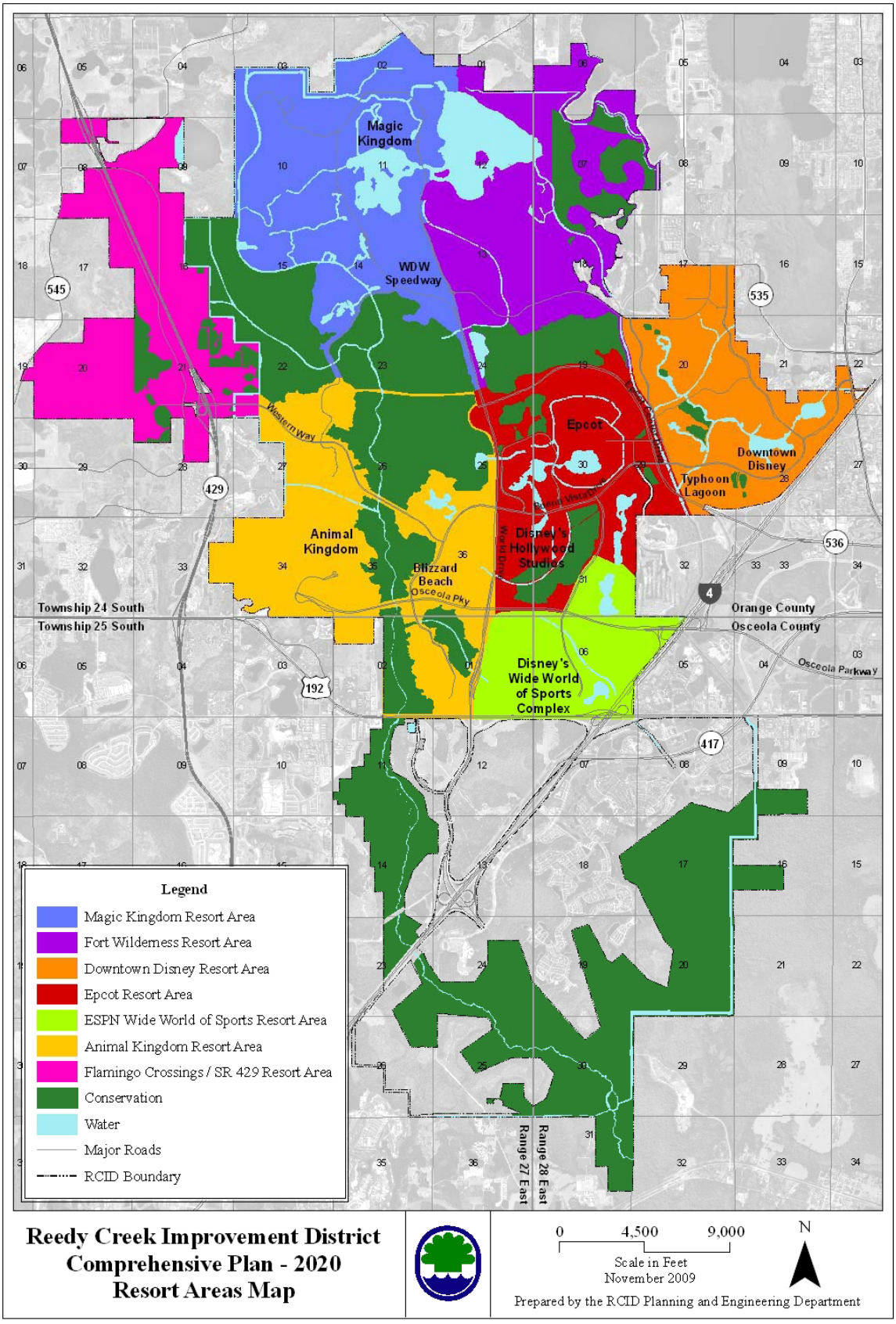
ESPN Wide World of Sports Resort Area

This area includes land bordered by Osceola Parkway on the north, US 192 on the south, World Drive on the west, and I-4 on the east. The area's major development is Wide World of Sports, a complex of athletic fields and spectator sports facilities. The complex includes playing fields, two arenas, a baseball stadium, a restaurant, office and retail space, and various accessory buildings. Wide World of Sports is abutted by several large upland sites suitable for future development. The Pop Century Resort with 2,880 rooms is located within the resort area.

Flamingo Crossings / SR 429 Resort Area

This area is located in the western most portion of the District and currently consists of the infrastructure for Phase 1 of a 248 acre mixed-use tourist commercial district of third-party branded lodging, retail, and dining establishments. To the north of Flamingo Crossings are the District's Rapid Infiltration Basins (RIBs) which border SR 429 to the east and west. Most of the land was planted with citrus groves until it was acquired by the District for use as a treated effluent disposal site in the late 1980s. More than 800 acres have been developed with rapid infiltration basins. The remainder of the area includes wetland mitigation sites and undeveloped uplands.

Figure 2-2: Resort Areas



MAPPING OF EXISTING LAND USES

Departures From Rule 9J-5

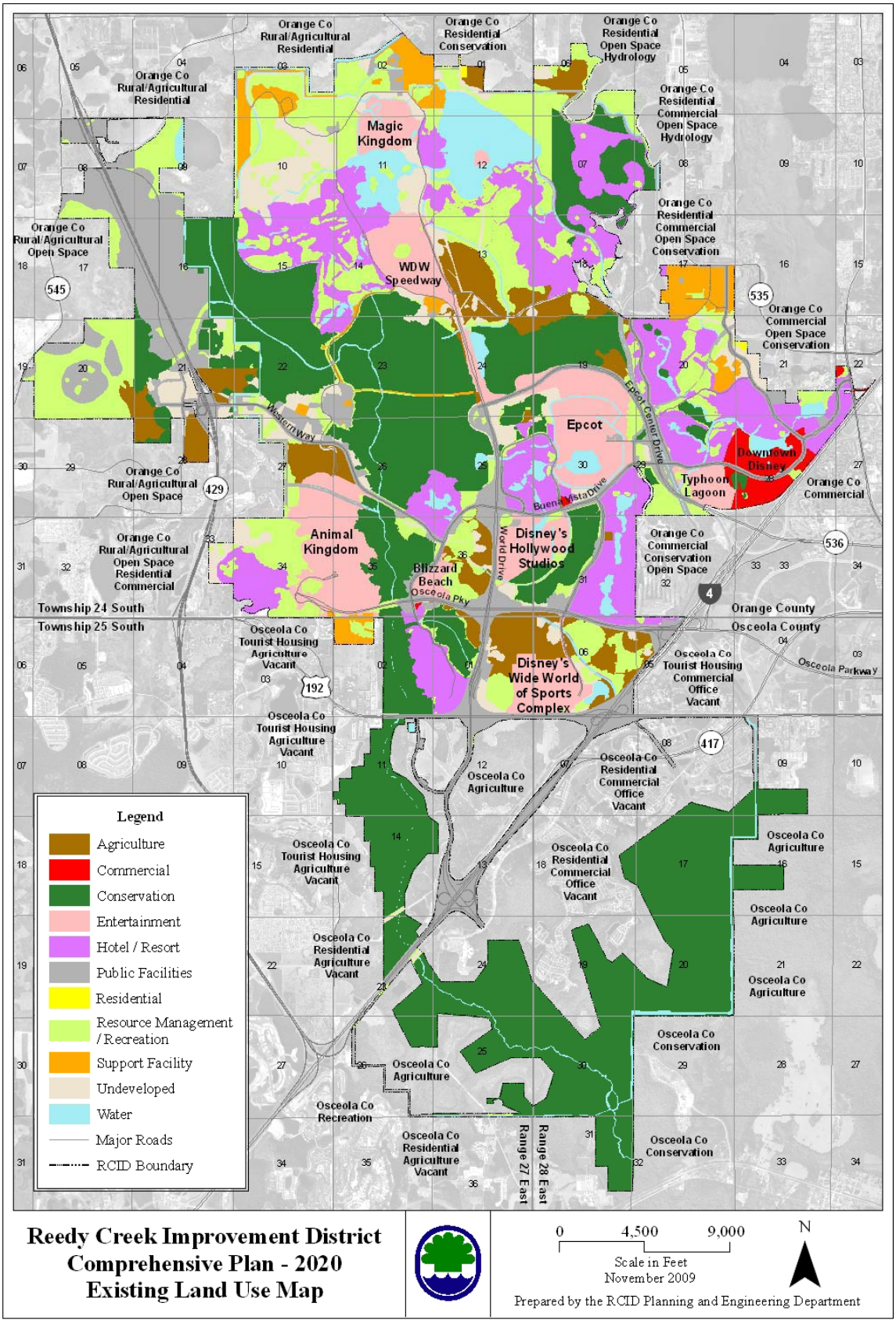
Rule 9J-5.006(1)(a) specifies that the existing land use categories must include residential, commercial, industrial, agricultural, recreational, conservation, educational, public, and vacant land. The rule also specifies that the existing land use map display key natural and historic resources.

Because of the unique character of the RCID, departures from the Rule 9J-5 classification system have been made. Commercial uses have been further divided so that hotel/resort and entertainment uses appear separately. Traditional industrial uses (manufacturing, research and development, etc.) are not present in the RCID. Uses with some industrial character have been incorporated in a more inclusive category called Support Services because such uses exist to support the District's entertainment and resort activities.

The Existing Land Use Map does not include an explicit Recreational category because the entire district is recreational in its function. Active recreational areas have been described as Entertainment, while open land has been described as Conservation, Agriculture, or Undeveloped. Likewise, there is no Educational category. Although many of the entertainment facilities serve an educational function, the conventional use of this category to identify public schools is not relevant because there are no public schools in the District. Public land uses include all facilities owned or operated by the District, such as the wastewater treatment plant, rapid infiltration basins, fire stations, energy plants, and public roads.

Rather than using a single map to show all existing land uses and natural resources, two maps are used. Figure 2-3 illustrates land use categories, while Figure 2-4 illustrates resource categories (wetlands, water bodies, flood plains, in accordance with Section 119.071(3), Florida Statues, locations of water wells are not provided due to the sensitive nature of these facilities and the security thereof, and there are no archaeological sites within the RCID). The two maps are integrated in Figure 2-5, an illustration of the suitability of vacant land for future development. Although soil mapping is contained in the Conservation Element, soil and mineral data have been used in the evaluation of development suitability shown in Figure 2-5. Figure 2-5 indicates those areas with the potential for future development, based on the suitability criteria discussed below.

Figure 2-3: Existing Land Use



Existing Land Use Categories

Figure 2-2 depicts existing land use in the RCID. The mapped data are quantified in Table 2-4. Land in the District has been divided into 11 categories, defined below. The first seven categories represent urban uses, while the latter four describe undeveloped areas. All data represent conditions as of 2009.

Table 2-4: Existing Land Use

Land Use	Acreage	Percent of Total
Residential	14	0.1
Commercial	241	1.0
Hotel/ Resort	3,137	12.7
Entertainment	2,305	9.3
Support Facilities	618	2.5
Public Facilities/Roads	3,080	12.4
Agriculture	1,304	5.3
Undeveloped	1,321	5.3
Resource Management/Recreation	3,410	13.8
Conservation	7,939	32.1
Water	1,373	5.5
TOTAL	24,742	100.0

Residential – This category includes all permanent residential units in the District. There are 14 acres categorized as residential, with 17 manufactured homes. Average residential density is about 1.2 units per acre. The residential acreage is located on two sites, one on the north shore of Bay Lake and the other on the east side of Buena Vista Drive.

Commercial – This category includes all commercial uses except entertainment (gated attractions) and hotel/ resort facilities. The District's commercial areas contain offices, banks, restaurants, service stations, theaters, entertainment venues, retail shops, and associated parking areas. Shops and restaurants within or ancillary to gated attractions or resorts are coded as Entertainment or Hotel/Resort.[1] In 2009, there were 238 acres of commercial development in the District, containing 897,887 square feet of retail, restaurant, entertainment, and theater space, 882,000 square feet of office space, and three automobile service stations.[2] The average floor area ratios in the commercial areas are 0.31 for office space and 0.14 for retail and restaurant space.[3] Commercial uses comprise 1.0 percent of the District's area.

Hotel/Resort – Hotel/Resort land uses include all lodging and ancillary lodging facilities in the District, including golf courses. This land use category encompasses 3,137 acres and contains 33,267 lodging units.

[1] *For example, retail and restaurant uses at the Boardwalk Hotel Promenade are not included in this category, nor is the Rainforest Cafe at the Animal Kingdom.*

[2] *Office square footage does not include offices within Support Service areas or office space within gated attractions (such as the 211,000 square foot animation building at Disney's Hollywood Studios.)*

[3] *Floor Area Ratio is the ratio of total built space (in square feet) to land area in the listed use (in square feet).*

Lodging includes 28,267 hotel rooms, 5,000 interval ownership units, and 799 recreational vehicle and tent camping sites, and 409 cabins. There are 23 resort hotels, eight interval ownership units, and the campgrounds. Hotel/Resort uses cover 12.7 percent of the District's land area. The average density for this land use after factoring out golf courses is 13.9 rooms per acre.

Entertainment – This category includes all attractions and associated parking, including the landscape buffer areas on each attraction's perimeter. Entertainment areas include the Magic Kingdom, Epcot, Disney's Hollywood Studios, Disney's Animal Kingdom, Blizzard Beach Water Park, Typhoon Lagoon Water Park, Wide World of Sports, the WDW Speedway, Fantasia Miniature Gold, and WinterSummerland Miniature Golf. These areas comprise 2,305 acres, or 9.3 percent of the District's area. For planning purposes, entertainment uses within Downtown Disney and the resorts are not counted in this acreage figure.

Square footage does not provide a reasonable measure of development intensity for the theme parks as it does for the other nonresidential uses within the District. Animal Kingdom is much larger than Magic Kingdom, but generates fewer trips and less demand on public services. A better measure of intensity is average daily attendance. Estimates of attendance are published annually *by Themed Entertainment Association/ Economic Research Associate's*, which projected average daily attendance at Magic Kingdom for 2008 of 46,750 and 26,140 for Animal Kingdom.

Most of the theme parks have the potential for expansion or infill within their current boundaries. New rides and attractions are continually added to the parks on sites previously used for storage, parking, or other less intensive uses as well as on sites previously occupied by a ride or attraction that has been closed. Such features increase the intensity of development without a commensurate increase in developed land area.

Support Facilities – The Support Facilities category is assigned to all private activities that support the other urban land uses in the District. These activities are concentrated north of the Magic Kingdom at the North Service Area, two adjacent to Buena Vista Drive (the Administration Area and Village Administration), and south of Animal Kingdom. Other Support Facilities are also scattered throughout the District, including a construction landfill west of the Magic Kingdom.

This land use category encompasses 618 acres of land, or about 2.5 percent of the District's land area. Support Facilities buildings include more than 2.7 million square feet of enclosed floor space. Access to the larger Support Facilities complexes is generally restricted to employees. The Support Facilities areas have an industrial park character and consist of integrated warehouse, office, maintenance, and production buildings. Outdoor storage and production areas, parking areas, and communication equipment are also located throughout these areas.

Public Facilities – These facilities include District administrative facilities; wastewater treatment facilities; potable water wells and pumping stations; solid waste transfer, recycling, and composting facilities; energy plants; and fire stations. Most of the acreage consists of rapid infiltration basins east and west of S.R. 429. Public Facilities comprise 1,344 acres, or 5.4 percent of the District's area. Publicly owned roadways, including pavement, medians, interchanges, and stormwater ponds associated with the roadway are classified as Public Facilities. There are 1,736 acres of roads within the classification, or 7.0 percent of the District's area.

Agriculture – This land use comprises 1,305 acres of the District, or 5.3 percent of the total area. Most of the acreage consists of pasture in Osceola County and is used for cattle grazing. Other areas with this

designation include pine plantations and citrus groves. The Walt Disney World nursery and tree farm is also included in this category.

Undeveloped – This category is used to describe all undeveloped, nonagricultural land suitable for development. It applies to 1,321 acres or 5.3 percent of the District. It is comprised of primarily of uplands, but also includes wetlands that have been permitted for impact.

Resource Management/Recreation – This category includes all jurisdictional wetlands and other environmentally sensitive lands. There are 3,410 acres within this category and apply to 13.8 percent of the Districts land area.

Conservation –Conservation comprises 7,939 acres, most of which is within the flood plain of Reedy Creek. Although the vast majority of Conservation lands consist of wetlands, there are uplands within this land use category. All lands covered by conservation easements are classified as Conservation. This designation accounts for nearly 32.1 percent of the District's area.

Water Bodies. Water Bodies include canals, lakes, ponds, and streams. There are 1,373 acres of water within the District boundary, or about 5.5 percent of the total area. The largest water bodies are Bay Lake (406 acres) and Seven Seas Lagoon (185 acres).

ADJOINING LAND USES

Figure 2-4 depicts existing land uses outside the District as well as within it. The map includes areas extending about one mile beyond the District boundaries so that existing and future land use compatibility issues along the perimeter areas can be identified.

CR/SR 535 Corridor[4]

Urban land uses extend along CR/SR 535 from US 192 north to Apopka-Vineland Road. Primary uses in the corridor are hotels, resorts, and shopping centers, most of which are contained within large-scale projects. There are also a number of apartment complexes. Because of its proximity to I-4 and its location near the attractions, this has historically been the fastest-growing area on the District's perimeter. Its development has been accelerated by completion of the International Drive Extension, Osceola Parkway, and Greenway Toll Road. Concentrations of tourist-oriented development have also emerged adjacent to this corridor along the east side of I-4 and north side of SR 536, and to the north along Apopka-Vineland Road. Large mixed use communities are also planned or under construction to the east along the toll roads.

Farther north along CR 535, a large golf resort and high rise hotel lies adjacent to the District boundaries. Much of the area to the north and northwest of the District is planned for future development as part of Horizons West, a 5,200-acre area comprised of multiple properties and planned for nearly 11,000 housing units. Numerous properties have already been developed, including several affordable housing complexes.

[4] *Route 535 is county-maintained north of I-4and state-maintained south of I-4.*

US 192 Corridor

Commercial development extends along US 192 for several miles to the east and west of the District boundary. Principal uses are hotels, restaurants, shopping centers, commercial recreation, and gift shops. In addition, new residential communities have been developed in the 192 Corridor and more housing is under construction or planned. The corridor also includes agricultural uses and undeveloped acreage.

Celebration and Little Lake Bryan

Celebration is a planned community being developed on about 5,200 acres south of US 192 and adjacent to District boundaries. The Town has been designed according to traditional urban planning principles and includes a pedestrian-oriented downtown area, housing at a variety of densities, schools and public buildings, extensive park and recreational amenities, and shopping and employment opportunities. The site was deannexed from the RCID in 1993 and development has been underway since 1995. At build out, the community is projected to house 20,000 residents and provide 15,000 jobs.

Little Lake Bryan is also being developed on land formerly within the District. The 300-acre site is planned for 2,700 multiple family housing units, 1,380 hotel rooms, and 375,000 square feet of retail space. Much of this development has taken place.

LAND USE ANALYSIS

POPULATION PROJECTIONS

Appendix A provides documentation of the District's projected population through the year 2020. Since the Executive Office of the Governor and the East Central Florida Regional Planning Council do not provide projections for the Reedy Creek Improvement District, a projections methodology was independently derived.

Permanent Population

The RCID has a permanent population of 43 residents, residing in eight manufactured homes in Bay Lake and nine manufactured homes in Lake Buena Vista. This population is expected to remain generally constant through the year 2020.

Overnight Guest Population

On an average day in 2009, the District accommodates about 85,000 overnight guests in its resorts. Because the demand for accommodations within the District frequently exceeds the supply, additional hotels and interval ownership units will be planned for construction by 2020. As documented in Appendix A, average overnight guest population could reach as high as about 114,000 in 2015 and 143,000 in 2020 if all of the hotels and interval ownership units are constructed as provided for in the maximum development thresholds.

Theme Park Visitor Population

Theme Park visitors include persons visiting the District's major attractions, namely the four major theme parks and the two water parks. Attendance estimates for these six attractions are published annually by the Themed Entertainment Association / Economics Research Associates' (TEA/ERA). Theme park visitors include overnight guests (persons staying within District boundaries at hotels, campgrounds, and interval ownership units) and day visitors (persons staying outside the District or residing in the area and visiting for the day). Data on the percentage of theme park visitors who are staying within the District is available.

TEA/ERA estimated attendance at the four major theme parks during 2008 as follows: Magic Kingdom – 17,063,000 or about 46,750 per average day; Epcot – 10,935,000 or about 30,000 per average day, Disney's Hollywood Studios – 9,608,000 or about 26,300 per average day, and Disney's Animal Kingdom – 9,540,000 or about 26,000 per average day. TEA/ERA also provided estimates for the water parks during 2008 of 2,059,000 or 6,150 per average day for Typhoon Lagoon and 1,891,000 or 5,650 per average day for Blizzard Beach. These estimates are for flat to a one prevent decline in attendance. The Disney Company reported a three percent decline in overall theme park attendance in Florida for its 2009 fiscal year. Theme park attendance is projected to lag a bit behind the economic recovery.

Further detail on population and attendance projections is provided in Appendix A.

Employment

In 2009, there were an estimated 60,000 persons employed within the District on a full-time, part-time and seasonal basis. Approximately 80 percent of these persons were employed by the major landowners, with the other 20 percent employed by others including: RCID, tenants, and contractors. Tenants include the operators and employees of non-Disney hotels and retail shop within District boundaries. A construction workforce fluctuates with the amount of construction taking place within the District.

Primary employment centers include the four major theme parks, the resort hotels, the shopping complexes, and the support service areas. This mix is not expected to change over the next ten year planning period.

Total "Functional" or Daytime Population

Daytime or "functional" population refers to the total number of persons that are present in the District during a typical daytime period. The figure includes permanent residents, resort guests, theme park visitors, and employees. Estimates of functional population are best expressed as a range because many resort guests are potentially double counted as theme park visitors. The daytime or "functional population for 2009, 2015, and 2020 are estimated to be:

Year	Low	High
2009	178,690	264,021
2015	194,987	309,041
2020	214,868	357,488

NATURAL RESOURCE OPPORTUNITIES AND CONSTRAINTS

Introduction

This section describes how environmental features in the District affect the suitability of the vacant land supply for development. Since the RCID was established, there has always been a deliberate effort to let natural conditions guide the location of development. Attractions and hotels generally have been built on upland areas, above the flood plain, and outside of large wetland areas. Small or isolated wetlands within development areas have been incorporated as passive open space and treated as amenities where feasible. This environmentally sensitive approach to site planning will continue in the District.

Undeveloped land in the District may be broadly categorized as forested uplands and forested wetlands. The distribution of uplands and wetlands is related to the soils, topography, and drainage patterns that occur in the District. Each of these factors is described below. The factors are important in determining the suitability of a site for development. Figure 2-2 depicts existing natural resources in the RCID.

Soils

Soils have characteristics that affect their capabilities to support different uses. Well-drained soils account for only a small portion of the District's total land area. Other soil characteristics that may limit development include wetness (amount of water in the soil at various times of the year) and corrosiveness. Much of the undeveloped portion of the District is characterized by poorly drained soils and is subject to seasonal inundation. These limitations have been overcome in the past, although they may affect the choice of building materials and may require more costly construction techniques.

Soils are mapped in Figure 6-5 of the Conservation Element. No changes to existing soil characteristics are anticipated during the time period covered by this Plan.

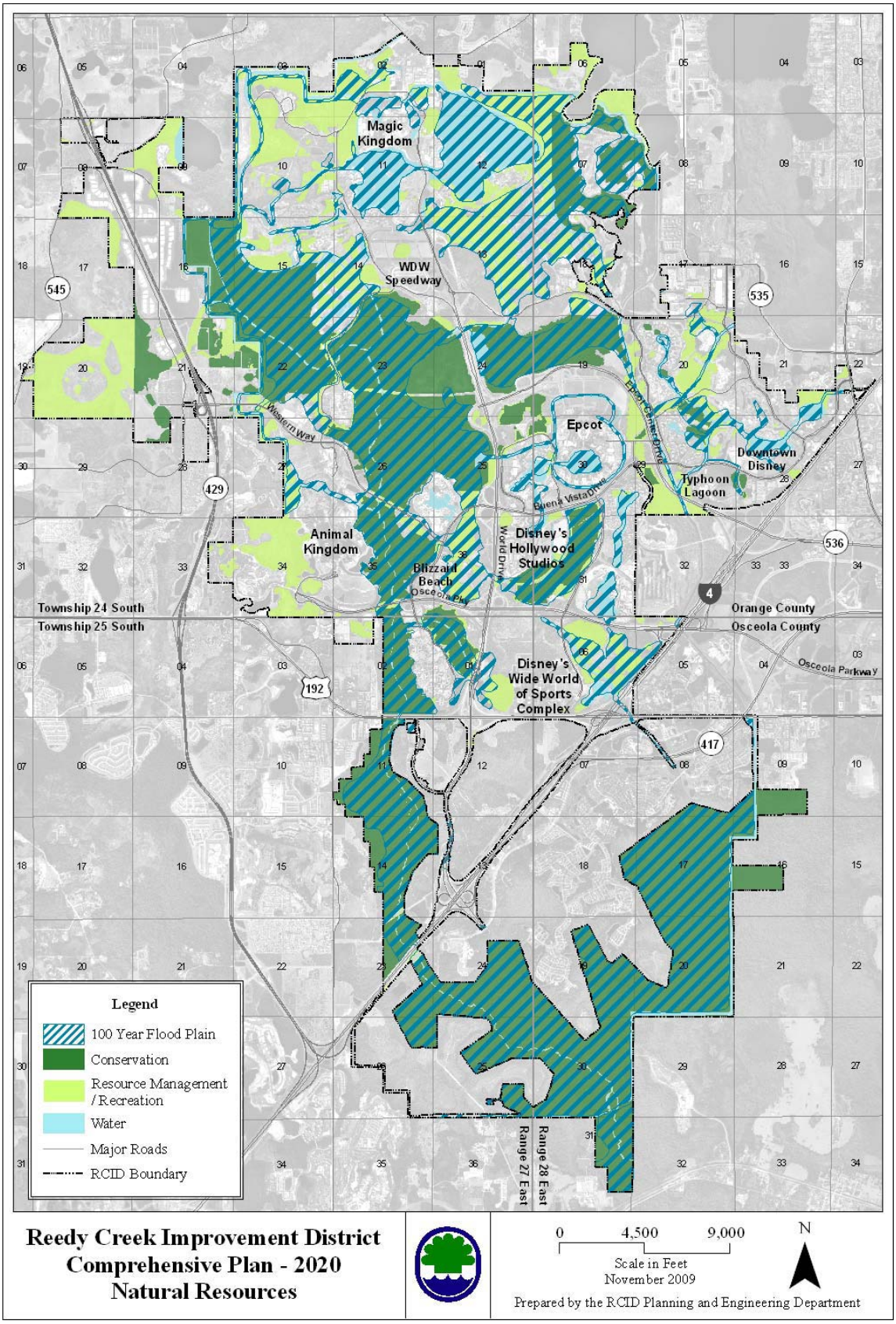
Mineral Resources

The District's primary mineral resource is sand; a number of excavation sites exist where sand has been extracted for fill purposes. Mineral resources will not significantly impact the location or character of development in the future.

Topography

The topography of the District is generally flat, with a very gradual downward slope from north to south. Elevation ranges from about 150 feet in the northwest part of the District to about 65 feet at its southern-most extreme. Areas of higher elevation generally occur along the east-central and west-central boundaries of the District and in the central portion near the border between Orange County and Osceola County. Slope will not constrain development in the District. Some areas may require drainage improvements because of insufficient natural gradients.

Figure 2-4: Natural Resources



Hydrology

The District consists of two major waterways: Reedy Creek which flows southward near the western boundary and Bonnet Creek which flows southward through the center of the District and drains into Reedy Creek. Both creeks discharge into the Reedy Creek Swamp, located south of US 192. Other important surface waters in the District are Bay Lake, Seven Seas Lagoon, World Showcase Lagoon, Village Lake, Lake Buena Vista, and Club Lake. The location of these creeks and lakes is shown in Figure 2-2.

Since 1967, drainage within the District has been improved for purposes of flood control, using canals, levees, culverts, and automatic flow-control structures. In general, drainage systems in the Bonnet Creek Basin have been channelized and are controlled by man-made structures. In contrast, the lower portion of the Reedy Creek drainage system remains in a relatively natural state, characterized by the detention of large quantities of runoff.

Groundwater

The District relies on subsurface geologic formations called aquifers as its primary source of potable water. Water is withdrawn from the Floridan Aquifer through wells located throughout the District. Percolation of rainwater into the ground, a process known as recharge, commonly occurs in areas at higher elevations and with porous soils. The level of recharge is generally highest in the northwest part of the District. In most of the District, recharge capabilities are low because of poor drainage and low surface elevations. The District protects high recharge areas from contamination through its land development regulations and through policies in the Conservation Element of its Comprehensive Plan. Groundwater quality is monitored at various locations within the District.

Flood Plains

Figure 2-2 shows the 100-year flood plain for the District. Most flood-prone areas lie adjacent to Reedy Creek in the western portion of the District, along Bonnet Creek, and in the Reedy Creek Swamp south of I-4. Approximately 10,656 acres, or about 43 percent of the District, lie within the 100-year flood plain. Recognizing the hazards of floods and the inherent environmental values of the Reedy Creek Swamp, over 7,000 acres in the Reedy Creek flood plain are designated as Conservation area. A more detailed analysis of the flood plain may be found in the Conservation Element.

Biotic Communities

The natural vegetative communities within the RCID fall into two broad groups: forested uplands and wetlands. The forested uplands (conifers and hardwoods) occur on the District's drier soils; portions of these areas provide habitat for wildlife. Wetlands are areas that are frequently inundated by surface water or groundwater and that support vegetative or aquatic life requiring saturated soil conditions for growth and reproduction. Such areas cover approximately 11,055 acres, or roughly 45 percent of the District. The location of wetlands in the District is shown in Figure 2-2.

Wetlands include both forested areas and marshes. Forested wetlands, which represent the vast majority of the District’s wetland acreage, act as natural storage areas for floodwater and also support wildlife. Marshes also have high value for wildlife and support several species whose range is restricted to wetland areas. Marshes are considered highly fragile and susceptible to variations in water levels. To protect the valuable natural functions that wetlands perform, these areas traditionally have been preserved. In addition to policies

in this element, the Conservation Element includes policies which protect wetlands and provide mitigation measures for development impacts.

Certain wetlands within the RCID (not included in the above acreage figure) have been approved for impact and mitigation through Long Term Permits (LTPs) issued by the South Florida Water Management District, the Florida Department of Environmental Protection, and the Army Corps of Engineers. The District will ensure that wetlands not covered by the LTPs are protected from development as provided for by this Element and other elements of the Comprehensive Plan.

Historic and Archaeological Resources

The District and its major landowners have conducted extensive study of potential historic and archaeological resources within District boundaries. The studies have concluded that there are no sites or structures of significance within the boundaries of the RCID.

Areas of Critical State Concern

There are no Areas of Critical State Concern within or adjacent to the District.

PUBLIC SERVICES

Introduction

While natural factors affect the capability of land to support development, public services affect the feasibility of actually developing the land. Without roads, water, and wastewater facilities, even the most ideal site cannot be considered developable. This section addresses those services provided by the RCID, as well as those provided by private entities. Some of the infrastructure serving the District is shared by other jurisdictions; this is especially true of highway facilities. An adequate circulation system is essential both within the District and between the District and points of origin for its visitors.

Traffic Circulation

Access to the RCID from the regional transportation network is provided by Interstate 4, US 192, SR 429, CR/SR 535, SR 536/International Drive, Apopka-Vineland Road, Osceola Parkway, and the Greenway Toll Road. A number of smaller roads in Orange and Osceola Counties such as Reams Road provide access to various support facility areas within the District. Thirteen roadways are owned and maintained by the District: World Drive (south of Epcot Center Drive), Osceola Parkway (west of I-4 and east of Reedy Creek), Epcot Center Drive, Buena Vista Drive, Hotel Plaza Boulevard, Victory Way, Western Way, Flamingo Crossing Boulevard, Epcot Resorts Boulevard, Bonnet Creek Parkway, Flagler Avenue, Backstage Lane, and Overpass Road. There are also private roads serving individual attractions, hotels, and service areas. Road capacities and levels of service are documented and mapped in the Transportation Element.

Traffic reduction measures and capital improvements to maintain the adopted levels of service are discussed in the Transportation Element.

Potable Water

The water distribution system, composed of wells, pumps, storage tanks, and distribution lines, serves all developed areas of the District. Under the June 2007 permit issued by the South Florida Water Management District (SFWMD), the annual water allocation for the RCID is 8,103 billion gallons, equivalent to 22.2 million gallons per day (mgd). Average daily consumption of water during the 12-month period ending January 1, 2010 was 16.23 mgd. Water conservation measures and increased reliance on reuse water for landscape irrigation have resulted in significant potable water savings despite resort and attraction growth.

For the recently issued Water Use Permit from SFWMD, RCID predicted a potable water demand of 23.8 MGD for the 2026 timeframe in the permit application. This demand was based on the summation of the planned and existing commercial development. RCID's Water Use Permit was issued based on the demand forecasts for the year 2013 of 22.2 MGD. The District has developed a Ten Year Water Supply Facilities Work Plan to address an anticipated shortfall in potable water after 2013. Details can be found in the Infrastructure Element.

The District has also taken measures to protect the quality of potable water at its wells. Land Use Regulations have been adopted specifying permitted and prohibited uses within 200, 300, and 400 feet cones of influence around all wells. Uses such as landfills and hazardous materials storage are strictly prohibited within the cone areas. Water quality and water levels are monitored at all well locations. Further information on groundwater and water quality is contained in the Conservation and Infrastructure Elements.

Wastewater Facilities

The RCID wastewater facilities consist of a collection and transmission system that conveys wastewater from developed areas in the District to a wastewater treatment plant (WWTP) located in the western portion of the City of Bay Lake. This facility has an existing capacity of 15.0 mgd and provides tertiary treatment. Treated effluent, the liquid portion of treated waste, is disposed through a network of rapid infiltration basins in the northwest part of the District or is reused for irrigation purposes through the system described above. Bio-solids (sludge) are de-watered and composted, with the finished product sold as a soil conditioner. Average daily flows for wastewater during the 12- month period ending in January 1, 2010, were 11.641 mgd, or about 78 percent of plant capacity.

Continued expansion of the wastewater treatment and disposal facilities is planned during the next 10 years. System improvements during the next five years will bring capacity to 20.0 mgd. Additional lift stations and collection lines are planned in new development areas. Because of these planned expansions, treatment and disposal of wastewater is not expected to constrain development within the District. The current collection system has been sized to permit additional future flows and will not require modification as new development occurs.

Solid Waste

Reedy Creek Energy Services, Inc. (RCES) operates the collection system, transfer station, and recycling program for the District. The RCID plans the adequate provision of equipment and facilities for operation, while RCES is charged with day-to-day operation. The two major components of the solid waste program are disposal and recycling. Approximately 64,502 tons of Class I solid waste was delivered to the landfill by the District during 2009, with 21,379 tons recycled.

Nonrecycled waste is collected by a fleet of vehicles, compacted at a transfer station, and transported to a private landfill in Okeechobee County. Recycled waste is collected by a separate fleet of vehicles and is transported to a Materials Recovery Facility within the District. Depending on the material, recyclables are sorted and processed for sale or are composted. The ability to collect and dispose of solid waste is not expected to adversely affect the development potential of the District.

Stormwater Management

The District's Water Control Plan covers a 108,000-acre service area that includes the RCID and off-site lands that convey stormwater through the District boundaries. Ultimately, all discharged stormwater flows into the Reedy Creek system. Retention and detention facilities (such as ponds and lakes) and wetland areas are innovatively incorporated as aesthetic or recreational amenities within District development.

The stormwater management facilities are monitored by the SFWMD, as well as the RCID. Periodic water quality tests are taken throughout the District and along the boundaries. Repair, maintenance, or corrective measures are applied as needed. Each annual budget establishes funds for repair, maintenance, and emergency corrective measures. Most of the District's flood control needs were met through capital improvement projects during the 1980s and 1990s; the current priority is to maintain existing facilities.

While drainage patterns do not necessarily restrict development, runoff volumes and water quality must be carefully evaluated for each new development. All new development plans in the service area (which includes contributory off-site lands) are reviewed by the District for stormwater discharge volume and quality. The District requires on-site retention of the first inch of runoff or 2.5 times the percent of impervious surface, whichever is greater. District-wide impervious surface coverage (pavement and buildings) is further limited by its SFWMD drainage permit.

As with other public services, planning for adequate drainage requires coordination with surrounding jurisdictions. A significant portion of the Reedy Creek drainage basin lies in Lake, Orange, Osceola, and Polk counties. This topic is further addressed in the Drainage Subelement of this plan.

Natural Groundwater Aquifer Recharge

New development plans are reviewed to ensure that the natural recharge system will be maintained. As mentioned earlier, the highest recharge areas are located in the northwest area of the District.

Electric and Gas Utilities

Through contractual arrangements with various utility companies (see Intergovernmental Coordination Element), the District operates and maintains its own electrical power and natural gas utilities. The District also operates hot and chilled water systems. All systems are adequate for present and committed development. For future development, additional capacity will be needed. Electrical, natural gas, and hot and chilled water system plans are updated annually by the District. Availability of these services is not expected to constrain development.

COMPOSITE SUITABILITY FOR DEVELOPMENT

There are currently 24,742 acres of land within the boundaries of the RCID. Of this total, 9,195 acres (37.2 percent) are essentially developed, 1,373 acres (5.5 percent) are water, and 14,174 acres (57.3 percent) are undeveloped. The undeveloped land includes lands within existing resort areas as well as areas that are more remote and not yet accessible by road.

Suitability Ratings

For analysis purposes, the District's undeveloped land can be further classified based on its suitability for development. The natural resource data described earlier in this chapter has been used to identify land as *suitable, marginally suitable* or *unsuitable.* The distribution of land in each category is shown in Figure 2-5.

Suitable – Areas given a suitable rating are generally forested uplands, pasture lands, or other undeveloped sites outside the Conservation areas. There are 2,825 acres (19.9 percent of the undeveloped land) in this category. Lands classified as suitable are generally above the 100-year flood elevation. However, in a few instances, corrective drainage improvements would be required prior to construction.

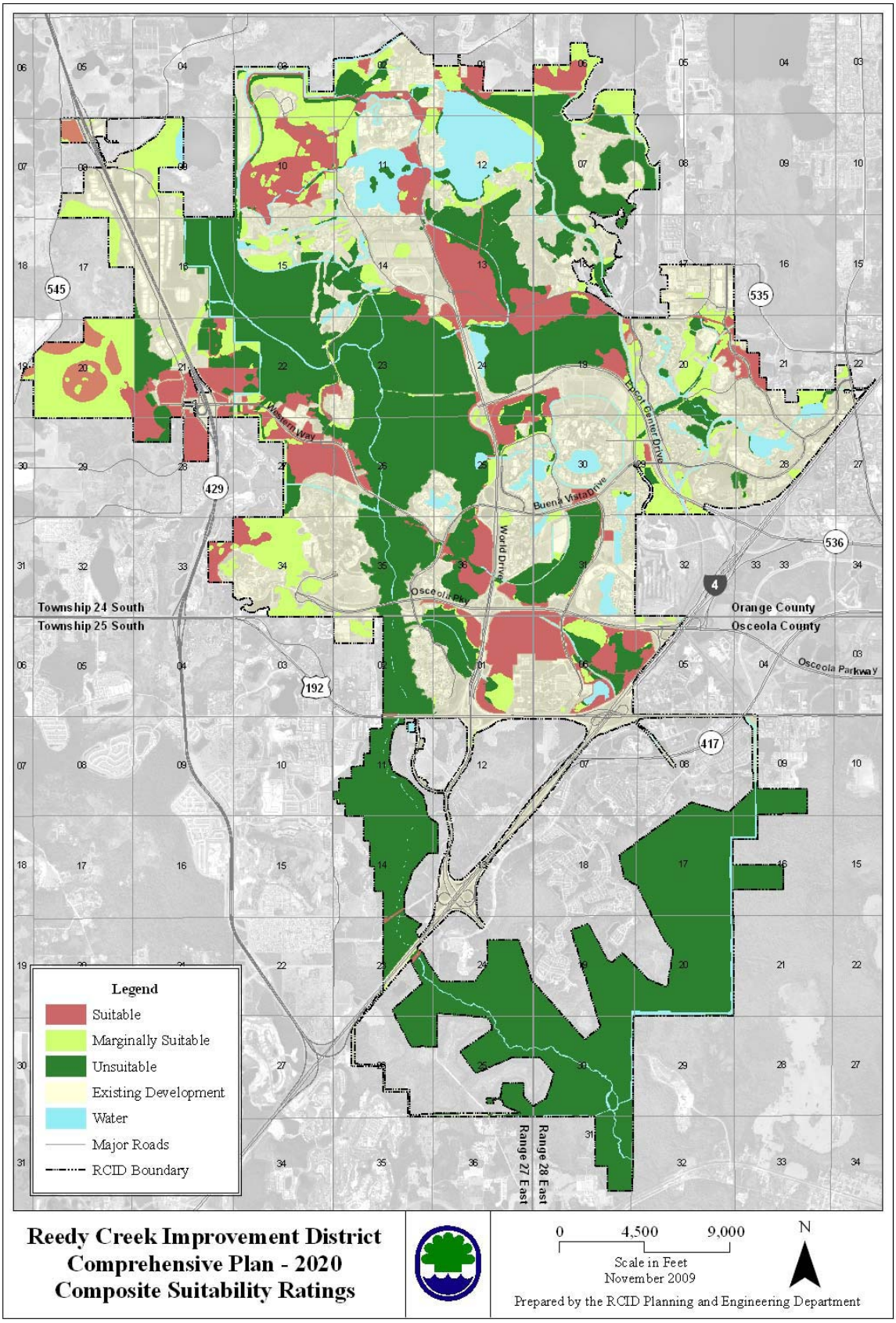
Marginally Suitable – Areas given a marginally suitable rating have identified or recognized constraints for development. This classification corresponds to wetlands that are above the 100-year flood elevation. Development in these areas is strongly discouraged and would require mitigation of wetland impacts above and beyond what is prescribed in the District's Long Term Permits. There are 2,256 acres in this category or 15.9 percent of the undeveloped land area.

Unsuitable – Land in the unsuitable category has the most restrictive development constraints. It has been applied to wetlands below the 100-year flood elevation and to all wetland and uplands Conservation Areas. Most of the acreage is in the Reedy Creek Swamp. Land with this designation is considered unavailable for development. The 9,093 acres with this designation represent 64.2 percent of the undeveloped land area.

Location of Suitable Land

During the next 10 years, the District's development will be directed to those areas identified as *suitable* in the above analysis. The largest areas of suitable land are located west of Animal Kingdom, between World Drive and I-4 between Osceola Parkway and US 192, around Lake Mable, north of the Magnolia Golf Course, east of the Magic Kingdom parking lot, and west of Disney's Hollywood Studios. Other areas identified as suitable are scattered throughout the District on sites of less than 100 acres. Figure 2-6, later in this chapter, shows the location of suitable land based on land use designation.

Figure 2-5: Composite Suitability Ratings



LAND DEMAND

INTRODUCTION

This section of the Future Land Use Element projects the demand for land in the Reedy Creek Improvement District through 2020. In most cities and counties, land demand is driven by population and economic growth. The need for residential land is determined by the expected density of new housing, expected household size, and size of the future resident population. The need for nonresidential land is determined by regional economic projections and the percentage of regional growth that the local area can expect to capture. Commercial land demand is also driven by population growth, especially for retail and service uses.

Many of these conventional forces are absent in the RCID. A vast majority of the District's land is owned by a single property owner or its subsidiaries. Therefore, it is difficult to predict future land use needs based on past trends. The amount of land developed will be determined not by local population growth or regional economic conditions, but by the global demand for tourism and entertainment facilities as perceived by the landowners.

The Future Land Use Element for the RCID recognizes its desire to be competitive with other destination resorts and attractions around the world, as well as in Central Florida. The Future Land Use Map retains the flexibility to adapt to changing trends and consumer preferences, as well as the changing character of the Orlando region. Past plans for the District have enabled its major landowners to remain at the forefront of the theme park and resort industries for the past four decades. The Walt Disney World Company intends to continue to meet the demand for state-of-the-art vacation experiences during the next decade. Expansion and diversification of facilities, including the development of new facilities, will be necessary.

GUIDELINES

Seven guidelines or assumptions about the future have been followed to derive land demand figures.

1) The RCID will remain a nonresidential, tourist-oriented community.

Permanent residential development is not expected to occur within the current boundaries of the RCID; births among the existing 43 residents are not expected to generate sufficient demand for new residential areas. As employment in the District grows there will be a demand for residential land in the RCID vicinity. Housing programs are further addressed in the Housing Element of this Plan.

2) The density of new development will be somewhat higher than existing development.

Table 2-5 indicates the existing density of development in the RCID. As the supply of vacant land becomes smaller, new development is projected to occur at somewhat higher densities or on somewhat smaller sites. Infill development within existing activity areas will also tend to increase the overall density of developed areas. While there will be exceptions to this assumption, the overall trend is expected to be towards more dense development.

Table 2-5: Average Land Use Densities and Intensities for Existing Development

Land Use	Developed Acreage	Units	Density / Intensity
Residential	14	17 DU	1.21 DU/Acre
Commercial			
Retail/ Restaurant	*150*	*897,887 SF*	*0.14 FAR*
Office	*69*	*882,000 SF*	*0.31 FAR*
Hotel/Resort			
Hotels / Other Resort Units	*2,399*	*33,267*	*13.9 Keys/Acre*
Golf Courses	*1,057*	*81 holes*	*13.1 Holes/Acre*
Entertainment			
Major Theme Park	*1,588*	*4 parks*	*377 Acres/Park*
Minor Theme Park	*427*	*3 parks*	*214 Acres/Park*

Note: DU = Dwelling Units / FAR = Floor Area Ratio

3) A continued effort will be made to accommodate theme park visitors within District boundaries.

The percentage of Walt Disney World visitors staying in overnight accommodations within the District boundaries has been increasing steadily and is projected to continue increasing. The demand for hotel rooms is projected to remain strong and a continued effort to accommodate visitors on-site will be made. The number of resort units (hotel rooms, campsites, and interval ownership units) could increase by over 20,200 by 2020. Based on an average density of 13.9 units per acre, this translates into a demand for over 1,453 acres of land.

Although Table 2-1 (Maximum Development 2010-2020) allows for development of an 18 hole golf course, there are no plans for one.

4) Attendance at the theme parks will continue to grow.

The number of visitors to existing attractions in the District is projected to grow from 2010-2020 at an estimated average annual rate of one percent. In the past a two percent compounded rate of growth has been used; however world events and economic factors during the last planning horizon have curtailed the consistent year to year growth experienced during 1970s, 1980s, and 1990s. After three decades of growth, attendance at the major theme parks located within the District declined in 2001 and 2002 and 2009. There are currently no new hotel/resort projects under review or construction. New features and enhancements of existing features within the established parks—such as rides, shows, and pavilions—are projected to be added to both support and attract more visitors. A major enhancement of Fantasyland at the Magic Kingdom is in the pre-construction stage.

Since there is no accepted method of forecasting acreage needs for entertainment facilities, each of the gated attractions has been examined for its potential to physically expand. Both Epcot and the Magic Kingdom may expand through infill and intensification of previously developed areas. Disney's Hollywood Studios has a potential expansion area west of the theme park although the area is located across World Drive from the existing attractions. Animal Kingdom has substantial room within its existing boundaries for

additional attractions. There are also several undeveloped sites within the District that are large enough for an entirely new theme park. Although Table 2-1 (Maximum Development 2010-2020) allows for development of one major and two minor theme parks there are no plans under review. Approximately 591 acres would be required for these uses.

5) A broader range of services will become available to RCID visitors.

The range of services available to District visitors is considerably broader than that traditionally offered at a theme park or resort and is more typical of what one would expect in a city or village. The visitor can shop at a variety of stores, see a movie at a 24-screen theater, purchase gasoline, receive medical care, do banking, visit a health club, and dine out at numerous establishments without ever leaving District boundaries. In this respect, the District is similar to other jurisdictions in its vicinity. As the number of people staying in the District grows, opportunities for new commercial development will arise. Further opportunities also will arise from the addition of convention and meeting facilities at Walt Disney World resorts.

There are presently 241 acres of commercial land in the RCID serving the visitor population. By the year 2020 additional commercial land will be needed to serve the larger number of visitors to the theme parks and resorts. Based on projected growth trends for the resorts and theme parks, 158 acres may be needed for additional retail, restaurant, and office development by 2020.

6) New support and public facilities will be required as growth occurs.

The support service areas north of the Magic Kingdom, around Animal Kingdom, and in the Administration area will need to be expanded as new development occurs within the RCID. New production, warehouse, food service, and maintenance facilities will be needed, and expansion of utilities will be required.

Support acreage needs are projected to grow more slowly than entertainment and resort acreage needs. Many of the support facilities required large land areas initially but can now be expanded incrementally with infill. The District already owns sufficient rights-of way to add lanes to most of its roadways.

7) The RCID will continue to encourage development of mixed uses on a single site or integrated in a single building.

Existing development in the RCID successfully integrates multiple uses, such as entertainment, hotel, retail, office, and support services within single buildings or sites. This practice is encouraged to create lively, stimulating, pedestrian-oriented environments. Continued promotion of mixed-use development is anticipated, with development guided by performance standards and impact thresholds rather than narrowly defined lists of permitted or prohibited uses.

Redevelopment Needs

Rule 9J-5 requires an evaluation of redevelopment needs in each jurisdiction covered by the Growth Management Act. Redevelopment areas are defined as blighted or containing land uses inconsistent with the community's character and proposed future land uses.

Development in the RCID is less than 30 years old. All facilities were originally planned and developed under highest quality standards and continue to be maintained as such. There are no blighted areas. There are no hazard mitigation reports for the jurisdiction. Moreover, advance planning of development since the District's

inception has precluded incompatible land uses or uses which are inconsistent with the community's character, within the RCID boundaries.

Two types of redevelopment activities presently occur within the District. First, facilities are regularly updated to meet consumer expectations and to maintain attendance and occupancy levels. Three resorts—the Disney Institute, the Treehouse Villas, and the north wing of the Contemporary Resort—were demolished and rebuild to meet changing consumer demands. Secondly, low-intensity land uses (such as outdoor storage) may be periodically displaced by new development or facility expansion. In these instances, relocation arrangements for these low-intensity uses are made by the District's major landowners as needed.

Development and Redevelopment of Flood-Prone Areas

The 100-year flood plain boundary, as determined by the RCID, is depicted in Figure 2-2. Drainage studies indicate that portions of the Fort Wilderness campground and Magic Kingdom parking area may be subject to flooding in a 100-year storm event. No flooding has occurred in these areas since development began in 1971. Future development will occur on sites above the 100-year flood elevation since the majority of the flood plain is designated for conservation and unavailable for development. For the few locations in the flood plain designated for future development, construction will be permitted only if: (1) the base flood elevation is maintained; and (2) on-site compensating storage is provided to fully offset drainage impacts.

SUMMARY

Based on the assumptions stated above, potentially 2,688 acres of land will be required to accommodate development in the RCID during the Plan period. The actual amount of land needed will be subject to change as the major landowner's objectives or market conditions change. The 2,688-acre total is intended to provide a benchmark for road and utility plans through the year 2020 and is the basis for this plan. If current trends continue, it is unlikely that all of the development allowed for in Table 2-1 will occur. Based on the amount of Mixed Use land available, the projected 2,688 acres of development would bring the District relatively close to build-out. Most of the sites that would still be vacant in 2020 would be small and odd-shaped. Development beyond 2020 would occur primarily through infill.

Just as it is difficult to predict the amount of land to be developed during the next ten years, it is also difficult to predict the composition of uses in the areas to be developed. Trends of the early 1990s suggest that about 60 percent of the acreage developed during 2010 through 2020 may be interval ownership units. Again, this figure could rise or fall significantly as new development ideas and market trends emerge. Even if the overall composition of uses were known, the combination of uses within individual development sites would vary. As mentioned in Guideline 7, multiple uses are often mixed on a single site or integrated in a single building. For this reason, a Mixed Use designation is used for most vacant areas designated for future development.

FUTURE LAND USE PLAN

CONCEPT

The Future Land Use Map for the Reedy Creek Improvement District is shown in Figure 2-1. The map depicts the pattern of land uses envisioned through the year 2020. In conjunction with the goals, objectives, and policies of this element, the map sets the course for future development in the District. The absence of rigidly defined land use categories will enable the District to continue the tradition of encouraging innovative mixed use development within its boundaries.

Slightly over half (51.4 percent) of the District, including most of the Reedy Creek flood plain, will remain undeveloped. The undeveloped areas correspond to lands designated as marginally suitable and unsuitable earlier in this chapter and also include water bodies. Most of the undeveloped land has been designated as Conservation to acknowledge and preserve its sensitive environmental features. Wetlands outside the Conservation area have been designated Resource Management/Recreation (RM/R). This classification permits low-intensity recreational uses, stormwater management, and landscape buffers, and in a limited number of cases, access and utility corridors.

The balance of the RCID (just over 12,000 acres) has been designated for more intensive uses. Approximately 75 percent of this total is already urbanized, while about 25 percent consists of vacant land. The vacant land basically corresponds to areas designated as suitable for development in Figure 2-5. The location of vacant land by land use category is shown in Figure 2-6.

The FLUM identifies existing lodging areas and golf courses as Hotel/Resort. Most of the area with this designation is currently developed. Entertainment areas are designated to identify existing gated attractions, planned expansion areas for these attractions, and new attractions. The map also designates areas for Commercial and Support Facility uses. Most of the land with these two designations is already developed.

Vacant land suitable for development but not included in the above categories has been designated as Mixed Use. A wide variety of land uses will be accommodated in Mixed Use areas. The integration of hotel, entertainment, commercial, and recreational uses will be encouraged. Other uses, such as housing, offices, and support facilities are also permitted. Performance standards in the Land Development Regulations ensure that these uses are compatible and appropriately situated on specific development sites. The regulations also ensure that the Mixed Use areas are developed in a way that does not overburden public services or reduce environmental quality.

The map designates sufficient developable land to maximize flexibility in site selection. The developable areas provide a wide range of natural settings that can accommodate themed development and respond to changing preferences for recreation and leisure activities. The map also fosters new self-contained attractions or activity centers surrounded by greenbelts that enhance the identity and image of each attraction or center. Much of the appeal of the existing theme parks and resorts is derived from their natural settings and physical separation from existing development. Future development is anticipated to carry on this tradition.

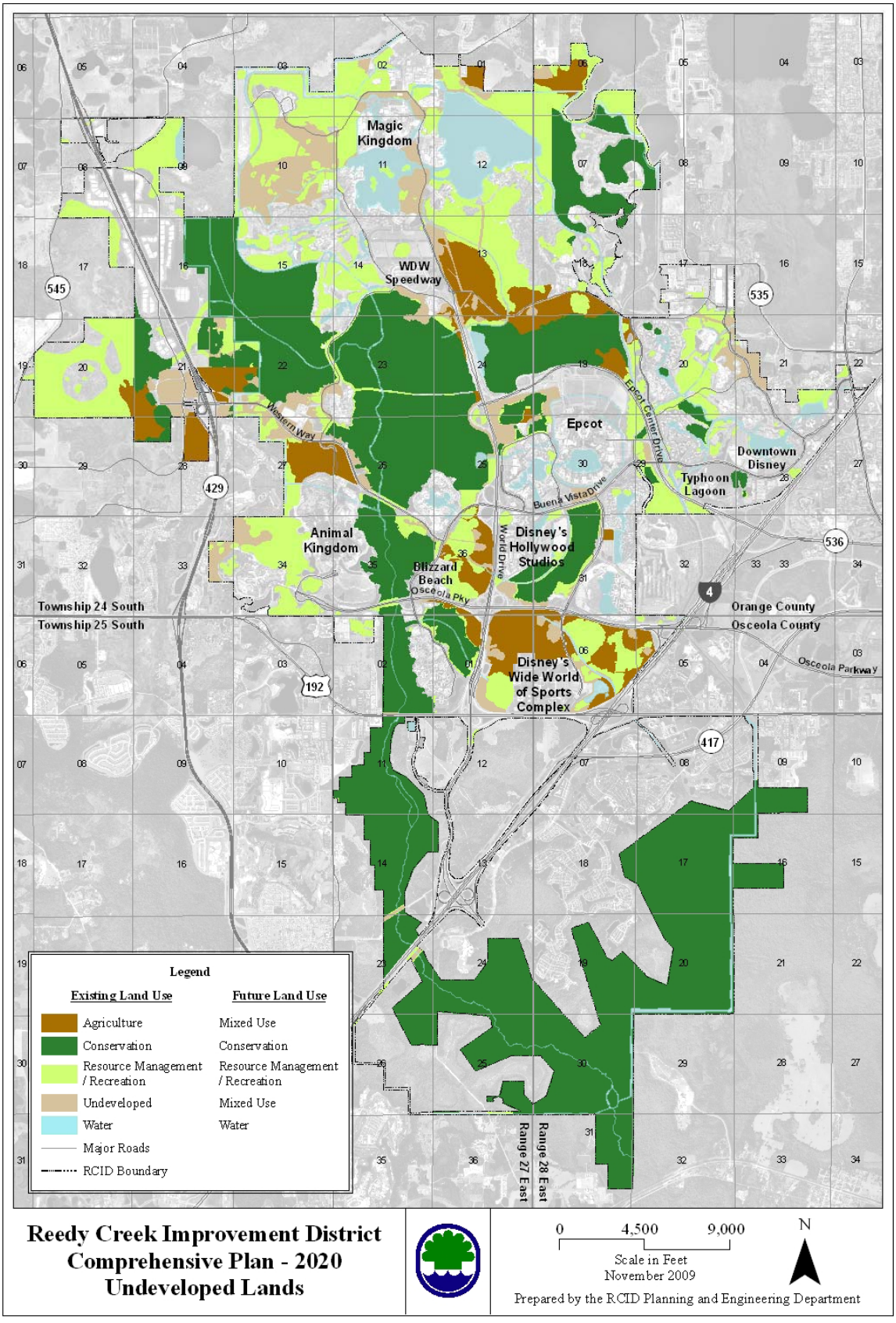
To ensure that the total amount of development during the lifetime of this plan is predictable and does not overburden local services, two growth management measures have been built into the plan. First, development maximums are used to indicate the potential composition of land uses in future mixed use areas.

Second, development thresholds are used to limit the total quantity of public service demand that may be generated by new development. The thresholds effectively place five- and ten-year caps on the amount of traffic that may be generated, the amount of water that may be pumped, the amount of wastewater that may be treated, and the amount of solid waste that may be generated within the boundaries of the District.

The thresholds reinforce the concurrency provision that requires public facilities to be in place or committed prior to the approval of new development. Not only must public facilities be provided concurrent with development impacts, but also the amount of new capacity that may be used by 2015 and 2020 is specified. The service caps provide jurisdictions outside the RCID with a projection of development that enables them to plan for local facilities that might be impacted by growth within the RCID, such as roads and transit.

Implementation of the Future Land Use Map will be affected by certain variables, such as changing technology, consumer preferences, and state and federal regulations. The plan has been designed to be flexible enough to respond to these changes while promoting continued economic development in the District. The Land Development Regulations provide more specific direction to guarantee that future development is safe and environmentally sound. The plan is subject to review every five years to ensure that its goals, objectives, and policies reflect both the priorities of the District and the mandates of state planning law.

Figure 2-6: Undeveloped Lands



MAPPING OF FUTURE LAND USES

Background

Rule 9J-5.006(4)(a) sets forth the list of land use categories to be used on the Future Land Use Map. The rule provides local governments with the discretion to depart from this list and apply mixed-use categories that combine specific uses. These categories are acceptable only when accompanied by policies dictating how various uses may be combined. The rule also permits local governments to develop new land use categories, provided these categories are clearly defined.

This Comprehensive Plan combines future residential, commercial, resort, entertainment, and recreational land uses into a Mixed Use category, and uses a Support Facilities category in lieu of an industrial category. Further detail on permitted uses in the Mixed Use areas is presented below and in the Goals, Objectives, and Policies. The Support Facilities category is used to describe areas that might be called industrial parks in cities or counties. Although they visually resemble industrial parks, the Support Facilities areas actually include privately operated facilities that support the theme parks and resorts in the District.

Public educational buildings are not included on the map because none exist or are planned within District boundaries. However, public schools are permitted in all Mixed Use zones. Likewise, a recreational category is not included because the entire District serves a recreational function. A wide range of recreational activities are available within most of the areas designated for entertainment, hotel/resort, commercial and mixed land uses. The Comprehensive Plan does not include an explicit designation for agriculture, because agriculture is not considered a viable long-term land use within the RCID boundaries. Agriculture is an acceptable interim use in all Mixed Use areas.

Consistent with Rule 9J-5, the map includes Conservation and Resource Management/Recreation categories used to denote lands that will remain undeveloped open space. The plan includes a broadly defined Commercial category used to identify the existing shopping centers and offices in Lake Buena Vista and to encourage infill of vacant lands in Lake Buena Vista with similar uses. More specific commercial uses are contained within the Hotel/Resort and Entertainment designations. Both of these designations are used to indicate sites that are either already developed with these specific uses or are currently under development. Finally, the plan includes a Public Facilities category that incorporates wastewater treatment facilities, public road rights-of-way, solid waste facilities, RCID utility and administrative buildings, and fire stations.

The map does not include historic district designations since there are no historically significant buildings within the RCID boundaries. Finally, future natural resource conditions are depicted on Figure 2-2, the same map showing existing natural resource conditions. The same figure is used for both existing and future resources because no major changes are planned to the District's physical features during the planning period. Flood plain and wetland boundaries are expected to remain the same. Significant mineral and soil resources are not explicitly labeled because these resources will not be extracted during the time frame of this plan.

Future Land Use Categories

Future land uses in the District have been classified into nine categories, defined below. Canals, streams, borrow pits, and ponds (lakes less than ten acres) have been incorporated into the figures for the adjoining areas. Limited-access public roads have been tabulated as Public Facilities, while private roads and local

public roads have been incorporated into the figures for the adjoining areas. Future roads are shown in the Traffic Circulation Element. The area in each category is summarized in Table 2-6.

Table 2-6: Future Land Use

Land Use	Acreage	Percent of Total
Commercial	236	1.0
Hotel/ Resort	3,123	12.6
Entertainment	2,305	9.3
Support Facilities	548	2.2
Public Facilities/Roads	3,080	12.4
Mixed Use	2,729	11.0
Resource Management/Recreation	3,410	13.8
Conservation	7,939	32.1
Water	1,372	5.5
TOTAL	24,742	100.0

Commercial – The Commercial category contains retail, service, office, hotel, and restaurant uses. It has been used to delineate the boundaries of the Lake Buena Vista Business District, including Downtown Disney, Team Disney, and adjoining areas. Infilling of vacant land in this area with new commercial uses will be encouraged. In addition, this area will continue to be promoted as the civic and cultural center of the RCID. New commercial development will also occur in future Mixed Use areas. In those areas, commercial uses will typically be integrated with hotel, recreation, or entertainment projects.

Hotel/ Resort – The Hotel/ Resort category is used to delineate resort hotels, campgrounds, and interval ownership units, including their ancillary facilities such as golf courses and equestrian stables. Commercial development that is ancillary to hotels, such as conference facilities, gift shops, and restaurants, are also permitted in these areas. As applied in Figure 2-1, this designation includes all existing resorts and resorts currently under construction or committed for construction in the near future.

Entertainment – The Entertainment category delineates the four primary theme parks in the District: the Magic Kingdom, Epcot, Disney's Hollywood Studios, and Disney's Animal Kingdom; and the smaller-scale parks or entertainment areas, namely Typhoon Lagoon, Disney Speedway, Blizzard Beach, and ESPN Wide World of Sports. The category also includes planned expansion areas for these parks. The principal uses are amusement and thrill rides, performance areas, shops and restaurants, educational and cultural displays, sports fields and venues, and television and motion picture production.

Although nearly all of this acreage with this designation is already developed many areas have the potential for additional construction through infill. For instance, large surface parking lots at the theme parks could potentially be reconfigured or replaced with structured parking to create additional development capacity.

Support Facilities – This category encompasses all private activities that will be needed to support the other urban land uses in the District through the year 2020. Included are existing Support Facilities north of the Magic Kingdom, at the CR 535/Buena Vista Drive junction, and south of Animal Kingdom. Also included are the construction landfill and the Car Care Center. Most of the Support Facilities areas will continue to have an

industrial park character, with site planning and landscaping standards set forth in the District's Land Development Regulations. Primary activities will be warehousing, administration, production, outdoor storage, food service, laundry, maintenance, communication, vehicle repair, and parking. Coupled with the areas designated for new Public Facilities, the Support Facility areas will provide sufficient land to accommodate all service needs generated by additional resort, entertainment, and commercial development.

Public Facilities – Most of the land with this designation consists of wastewater treatment facilities and roadway rights of way. Wastewater facilities with this designation include the treatment plant and the rapid infiltration basins along SR 429. Road rights-of-way includes extensive land coverage within interchanges as well as medians, roadsides, and roadways associated with I-4, World Drive, US 192, Osceola Parkway, EPCOT Center Drive, Buena Vista Drive, Western Way, Flamingo Crossings Boulevard and a number of smaller roadways. Other public uses include solid waste recycling and composting facilities, the RCID Administration Building, and District fire stations. Roads to be built in the future are shown on the 2015 and 2020 Recommended Transportation Network figures found in the Traffic Circulation Element.

Mixed Use – This is the predominant category used to identify future development sites in the District. The major permitted uses are resort accommodations, theme parks or other entertainment facilities, campgrounds, and recreational facilities. Additional permitted uses include retail shops, commercial services, offices, educational or research facilities, support facilities, housing, schools, and open space. The Land Development Regulations for the District specify how these uses may be arranged with respect to one another, as well as the requirements for physical site planning. Most of the land with this designation is presently vacant. Development in the Mixed Use areas will be guided by the development maximums and infrastructure caps presented later in this element. These measures set parameters for both the composition of new uses and the quantity of development that can take place.

The overall character of the mixed use areas will be comparable to existing mixed use development within the District boundaries. The purpose of mixing land uses in the District is to create lively, stimulating environments that reduce dependence on the automobile. The intent of using a mixed land use category in this plan is to create opportunities for innovative site planning and land use integration and to allow flexibility in the selection of sites for themed development.

Resource Management/Recreation (RM/R) – The RM/R areas correspond to jurisdictional wetlands located outside the Conservation area. These areas possess a combination of soil and drainage conditions that make them poorly suited for urban uses. They also have high habitat values and are an important part of the District's stormwater management system.

The RM/R areas are considered to be inappropriate for development and are generally to be retained as open space. The RM/R areas may also be incorporated as open space or greenbelts in development on adjoining upland sites. They may be used for stormwater management or for activities that require little or no alteration of the natural landscape, such as hiking trails. As stated in Policy 1.7 of this Element, access and utility corridors may be allowed within these areas under certain conditions if mitigation is provided. Wetland impacts will only be permitted if mitigated elsewhere in the Reedy Creek basin.

Conservation – The Conservation designation has been applied to the most environmentally sensitive portions of the District, namely wetlands and uplands falling within the flood plains of Reedy Creek and Bonnet Creek or covered by conservation easements. The size of this area may be increased during the planning period if development elsewhere in the District requires land dedication as a mitigation measure. Natural

resources associated with the Conservation areas and other areas in the District are depicted in Figure 2-2 and are further described in the Conservation Element.

Water Bodies – Water bodies include canals, lakes larger than ten acres, and streams.

DEVELOPMENT MAXIMUMS

Table 2-1 indicates development maximums for the 2015/2020 five year timeframes and the 2010 ten year timeframe. For each land use listed in the table, the figures represent the estimated maximum amount of development that will be permitted to occur during each time period. The table will be periodically reviewed and, if necessary, amended through the plan amendment process.

Table 2-1 includes a column indicating the plan designations in which each type of use will be permitted to occur. All of the uses listed in Table 2-1 will be allowed in Mixed Use areas; some of the uses will also be permitted in areas designated Commercial, Hotel/Resort, and Entertainment, as appropriate. In addition to the land uses listed in Table 2-1, facilities that provide support services to theme parks, hotels, retail/restaurants, and office developments will be developed during the next decade. These facilities include laundry, food service, warehouse, production, and utility buildings and will generally be located in areas designated for Support Facilities. The need for support facilities will be entirely driven by the other land uses listed in the table. Regardless of the type of development, the caps on infrastructure identified in the plan will not be exceeded at any point.

For service planning purposes, this plan projects that development will occur at the maximum level shown in Table 2-1 for the ten years through 2020. It is likely that the actual amount of development that occurs will be less than the maximum allowed. However, to ensure that adequate capacity is provided, infrastructure and roadway needs have been based on the most cautious (i.e., aggressive) forecasts for future growth. Assumptions on development will be reassessed at least annually to incorporate the most current information available on proposed development at that time.

Table 2-2 indicates the amount of land that would be developed by the year 2020 if development occurred at the maximum level indicated in Table 2-1 at existing average densities. Within any given mixed use area, the actual density will depend on the particular uses that are proposed on that site. For example, a mixed use site proposed for low-rise units may be developed at 10 units per acre, while a similar site with a high rise hotel may be developed at 30 units per acre. However, the overall amount of land used for hotels and interval ownership development during the next ten years is projected to be not more than 1,453 acres.

DEVELOPMENT THRESHOLDS

While the maximums in Table 2-1 are intended to provide a directive for the composition of future land uses in the District, the thresholds presented in Table 2-3 provide absolute limits on the overall quantity of development that may occur through 2015 and 2020. The maximum quantity of development will be fixed by placing "maximums" on urban service availability over the five- and ten-year intervals. An amendment to this plan would be required to change the service thresholds above the levels set in Table 2-3.

The first data column in Table 2-3 indicates the amount of road, water, sewer, solid waste, and drainage capacity required by development on an average day in 2010. In the next two columns, the table indicates the

maximum quantities of these average daily services that development will be permitted to consume by the years 2015 and 2020. The difference between the 2010 and 2020 figures dictates the amount of incremental new demands on public facilities that will occur.

Most of the thresholds in Table 2-3 will not be reached without some capital improvements or a reduction in the adopted level of service. Since minimum level of service standards will be maintained, new transportation, water, wastewater, and solid waste facilities will be required as development approaches the 2020 thresholds. Improvements for the 2015 five-year period are specified in the Capital Improvements Element, while improvements beyond 2015 are described in a general manner in the Traffic Circulation and Infrastructure Elements. Development will not be permitted if it will cause any of the development thresholds shown in Table 2-3 to be exceeded. Major projects will be phased, where feasible, so that the thresholds can remain in place through 2020 and plan amendments kept to a minimum.

Table 2-7 presents the service generation rates that will be used as future development is evaluated for its impact on public facilities. The table provides multipliers to determine water, sewer, and solid waste service needs for the major land uses allowed in Mixed Use areas. For instance, if an economy hotel is proposed, its impact on future water and wastewater facilities will be projected by multiplying the number of new keys (rooms) by the generation rates (150 gallons per day for water, and 130 for wastewater).

If the incremental addition causes District-wide water consumption and wastewater generation to rise above the thresholds in Table 2-3, then the development would have to be scaled down or the Comprehensive Plan formally amended so that the necessary improvements could be made. A Concurrency Management System tracks of all approved development projects and their projected demands on public facilities.

Table 2-7: Service Generation Factors

Land Use	Unit	Trips (trips/day)	Water (GPD)	Wastewater (GPD)	Solid Waste (lbs/Day)
Residential	Unit	9.57	350	300	11.5
Hotel (General)	Key	6.1	200	180	7.5
Luxury/Deluxe	*Key*	*7.4*	*250*	*230*	*11.0*
First Class	*Key*	*6.5*	*200*	*180*	*7.5*
Moderate/ Economy	*Key*	*4.5*	*150*	*130*	*6.0*
Other Resort Unit	Key	4.5	250	230	6.0
Convention Space	Sq Ft		0.25	0.20	0.0325
Office	Sq Ft	0.011	0.25	0.20	0.0020
Retail/Commercial	Sq Ft	0.043	0.30	0.25	0.0325
Theme Park	Guest	0.29	50	30	10 to 20 tons/park
Water Park	Guest	0.54	75	50	.05 to 1.0 tons/park

Once it is shown that a proposed development does not exceed the thresholds, concurrency must still be demonstrated. The public facilities that will support the development must be in place or committed at the time the project is approved. Thus, development approval is a two-step process. First, the project sponsor must show that District-wide service consumption will remain below the maximums in Table 2-1, the acreage figures in Table 2-2, and the thresholds in Table 2-3 after the project (and other approved projects) are completed. Second, the project sponsor must show that the public facilities needed to support the project without a reduction in the adopted levels of service are committed or in place. More specific guidelines for implementing

the concurrency and threshold requirements are set forth in the concurrency review provisions contained in the Land Development Regulations.

Tables 2-1, 2-2, and 2-3 are included in the Future Land Use Element Adoption Document and appear in that portion of this chapter.

PROVISIONS TO LIMIT URBAN SPRAWL

Rule 9J-5.006(5) requires the Comprehensive Plan to establish standards which discourage the proliferation of urban sprawl. Local plans must be consistent with provisions of the state comprehensive plan, the regional policy plan, and Chapter 163 which discourage urban sprawl and ensure efficient land use patterns and protection of natural resources. A series of indicators has been developed by the State to identify cases where sprawl may not be adequately discouraged. These are described below, followed by a discussion of their treatment in the RCID Comprehensive Plan.

PRIMARY INDICATORS OF SPRAWL

The state has identified 13 primary indicators of a Plan's propensity to encourage or discourage urban sprawl. The performance of the District on each of these indicators is identified below:

1. *Designation of Substantial Areas for low-intensity, low-density, or single use development.*

   The RCID Plan encourages more intense and dense development than what currently exists in the jurisdiction and designates most of the vacant land for mixed use rather than single use development. Based on this indicator, the Plan does not contribute to sprawl.

2. *Promotes or designates significant amounts of development to occur in rural areas while leaping over undeveloped areas.*

   The vast majority of the vacant land supply in the District is adjacent to existing development or major highways. There are no rural areas. Leapfrog development would only occur where the intervening lands are wetlands or Conservation areas since all land within the jurisdiction that is suitable for development has been designated for urban uses. Based on this indicator, the Plan does not contribute to sprawl.

3. *Promotes radial, strip, isolated, or ribbon patterns of development.*

   Historically, the District's site planning has deliberately avoided strip/ ribbon patterns of development in favor of creating activity centers and nodes. This continues to define planning practice and decision-making in the District today. The District's objective is to accommodate a larger share of visitors on-site as a means of discouraging strip patterns of development off-site; thus, based on this indicator the Plan does not contribute to sprawl.

4. *Fails to adequately protect natural resources and environmentally sensitive areas (encourages sprawl)*

The presence of environmental resources has been the primary determinant of land use designations in the District. Wetlands, water, and sensitive uplands in the District—representing more than half of its total area—have been designated for open space uses. Consequently, based on this indicator, the Plan does not contribute to sprawl.

5. *Fails to adequately protect agricultural activities.*

Existing agricultural uses in the District consist of pasture, orchards, a tree farm/nursery, and coniferous plantations. Given the District's urban character, these are not considered viable long-term uses. There are no areas in the District where urban uses are planned adjacent to agriculturally designated lands in surrounding jurisdictions. Based on this indicator, the Plan does not contribute to sprawl.

6. *Fails to maximize the use of existing public facilities and services.*

The Plan fully maximizes all existing public facilities and services, including roads. Because the District is a master planned community, the existing public facilities have been deliberately designed and planned to support the existing and future land use pattern. Based on this indicator, the Plan does not contribute to sprawl.

7. *Fails to maximize the use of future public facilities and services.*

Future public facilities and services have been planned specifically to support the future land use pattern. Based on this indicator, the Plan does not contribute to urban sprawl.

8. *Allows for land use patterns or development timing which disproportionally increase the cost of providing services.*

The establishment of development maximums and directly corresponding infrastructure thresholds ensures that the cost of services will be proportional to development and not disproportionately high. The Plan specifically discourages the creation of excess capacity in public services. Consequently, based on this indicator, the Plan does not contribute to sprawl.

9. *Fails to provide a clear separation between urban and rural uses.*

There are no rural uses existing or planned within the District. Where it is appropriate urban uses are clearly separated from other uses by open space and conservation areas. Based on this indicator, the Plan does not encourage sprawl.

10. *Discourages infill development and redevelopment.*

The Plan strongly encourages infill development and acknowledges that as the District approaches build-out, a growing share of its future development will occur as infill. Although traditional redevelopment is not required in the District due to the young age of development, the Plan strongly supports continued reinvestment in and expansion of the established activity centers within District boundaries. Based on this indicator, the Plan does not encourage sprawl.

11. *Fails to encourage an attractive and functional mix of uses.*

The guiding principle of the District's land use plan is to create an attractive and functional mix of uses; most of its land use objectives and policies are geared toward that end. Mixed use development is strongly encouraged. Based on this indicator, the Plan does not encourage sprawl.

12. *Results in poor accessibility among linked land uses.*

Virtually all of the land uses in the District may be considered linked, since there is one major landowner. The Plan emphasizes both roadway and transit links between different uses, with particular emphasis on transit links between the resorts and the theme parks. The Plan requires that these links continue to be developed and maintained. Based on this indicator, the Plan does not contribute to urban sprawl.

13. *Results in the loss of functional open space.*

The Plan strongly encourages the protection of existing functional open space (including golf courses, water, and landscaped buffers) and the creation of new functional open space within future development areas. Although the Plan designates more than 2,729 acres of open land for future development, it also sets aside 11,349 acres for conservation and resource management. Based on this indicator, the Plan does not contribute to urban sprawl.

EVALUATION OF LAND USES AND LOCAL CONDITIONS

Rule 9J-5.006(5)(h) requires an evaluation of each land use on the Future Land Use Map based on its extent, location, distribution, density, intensity, compatibility, suitability, functional relationship, land use combinations, and demonstrated need over the planning period. The evaluation must focus on the context of each use and characteristics unique to each locality.

Because of the District's unique land use composition, limited geographic area, and highly urban setting, the propensity for future land uses within its boundaries to contribute to urban sprawl is limited. In fact, the District has designated virtually all of its developable land supply for mixed use development. This category has been defined in a manner which makes urban sprawl very unlikely. Given past patterns, the mixed use sites are likely to be intensively developed with high-density, high-intensity uses that are fully supported by public services and utilities. Standards in the land development regulations ensure that multiple uses accommodated on a single parcel are compatible and that uses on adjoining mixed use parcels have a sound functional relationship to each other.

The other urban land use categories in the District's Plan—Commercial, Hotel/Resort, Entertainment, Support Facilities, and Public Facilities—have been primarily applied to existing development rather than vacant land. However, the Plan encourages more intense development in all of these areas and supports redevelopment of underutilized sites (such as storage yards and parking lots) with higher density or intensity hotel or entertainment uses. There are no rural land use categories in the Plan; rural densities would be discouraged in the District due to their inefficient use of the limited amount of vacant land remaining. The open space categories—Conservation, Resource Management/Recreation, and Water—help frame the urban areas and provide definition and distinction to activity areas within the District.

The overall size and location of areas designated for future growth have been identified based on projections of land demand (the projected growth rate) and assumptions about density and intensity (which dictate that future growth will be at least as dense as past growth). Based on the analysis in this Element, the size of the developable area is only slightly larger than the amount of land projected to be needed for development by 2020. Based on the location of the developable land, extensions of service (including roads) will not induce sprawl.

IMPACT OF COMPREHENSIVE PLAN DEVELOPMENT CONTROLS ON URBAN SPRAWL

The most notable development controls established by the Plan which discourage urban sprawl are the development maximums and infrastructure thresholds. These growth management tools create real limits to development potential and provide a strong incentive for the efficient use of land.

The District's open space requirements have been structured to minimize the propensity for sprawl by identifying future open space areas on a map in the Recreation and Open Space Element rather than requiring open space set-asides within individual projects. This has the net effect of encouraging more dense and intense development on urban sites, and preserving the most environmentally sensitive sites. Although the District has not adopted minimum density or intensity standards, the unique uses and intense market demand for land have dictated a trend toward higher rather than lower intensity development.

The District has historically emphasized mixed use, pedestrian-oriented development. The Comprehensive Plan establishes the expectation that future development will be similarly diverse, intense, and based on innovative design and planning principles. The Plan supports the evolution of the District into a more full-service and self-contained community.

ENERGY CONSERVATION AND REDUCTION OF GREENHOUSE GASES

Unlike a typical municipality or a county, there is one over arching purpose for development within the District—recreation and entertainment. All land use categories either directly provide for or support this purpose.

The District assigns a Future Land Use designation of Mixed Use for all land suitable for development within the District. While Mixed Use development may not occur on each parcel, taken as a whole the development patterns within the District clearly reflect the goal of the Mixed Use designation of creating "innovative combinations of land uses and development intensity, while ensuring compatible uses and high aesthetic standards". The goal of the Mixed Use designation is to allow for the development of Resorts, Attractions, Retail, Dining, and Entertainment Districts, and Office Complexes and the services that support these developments adjacent to one another. Each resort area shown on Figure 2-2 is a Mixed Use community, some to a greater degree than others. With vision, resourcefulness, and landscaping the Mixed Use designation can provide for the citing of support facilities and public facilities, such as fire stations, energy plants, recovered materials processing facility, in close proximity to the developments they serve. The District's designation of all land suitable for development as "generic" Mixed Use allows for the greatest opportunity for creating "energy efficient land use patterns" and "places

designed for people" and the reduction in greenhouse gas emissions.

ENERGY EFFICIENT LAND USE PATTERNS

For the most part development has occurred in energy efficient clusters comprised of multiple resorts adjacent to a major or minor theme park or a retail, dining, and entertainment (RD&E) district. Some of these mixed use clusters are more complete than others – consisting of resorts, theme park(s), RD&E districts, and service and public facilities. These mixed use clusters are also readily service by multiple modes of transportation which links all of the uses within a cluster and also between major attractions within all of the clusters. When safe and feasible, sidewalks and trails provide access between the various land uses. Figure 2-7 shows the seven mixed use resort areas or clusters as well as natural energy conservation features (wetlands, conservation uplands, and preserved open space), transit features, and energy plants.

The Epcot Resort Area represents a high mix of land uses and transportation modes. It is comprised of two major theme parks, a miniature golf complex, five resorts, and RD&E district, gasoline/mini-mart station, a central energy plant that provides electricity, chilled water for cooling and hot water for space heating, domestic hot water, air-conditioning humidity control, and kitchen use, an employee wellness center and a fire station, as well as undeveloped land for future uses. The Epcot Resort Area is served by multiple bus systems, monorail service, and water taxis. There are sidewalks linking four resorts, the miniature golf complex, the RD&E district and the Epcot Theme Park. The Magic Kingdom and Downtown Disney Resort Areas are also very complete in their mix of uses and transportation modes and pedestrian amenities. Many of the resorts provide bicycles and Pargo carts for guest use around the resorts as do a number of the theme parks for employee use in the backstage areas.

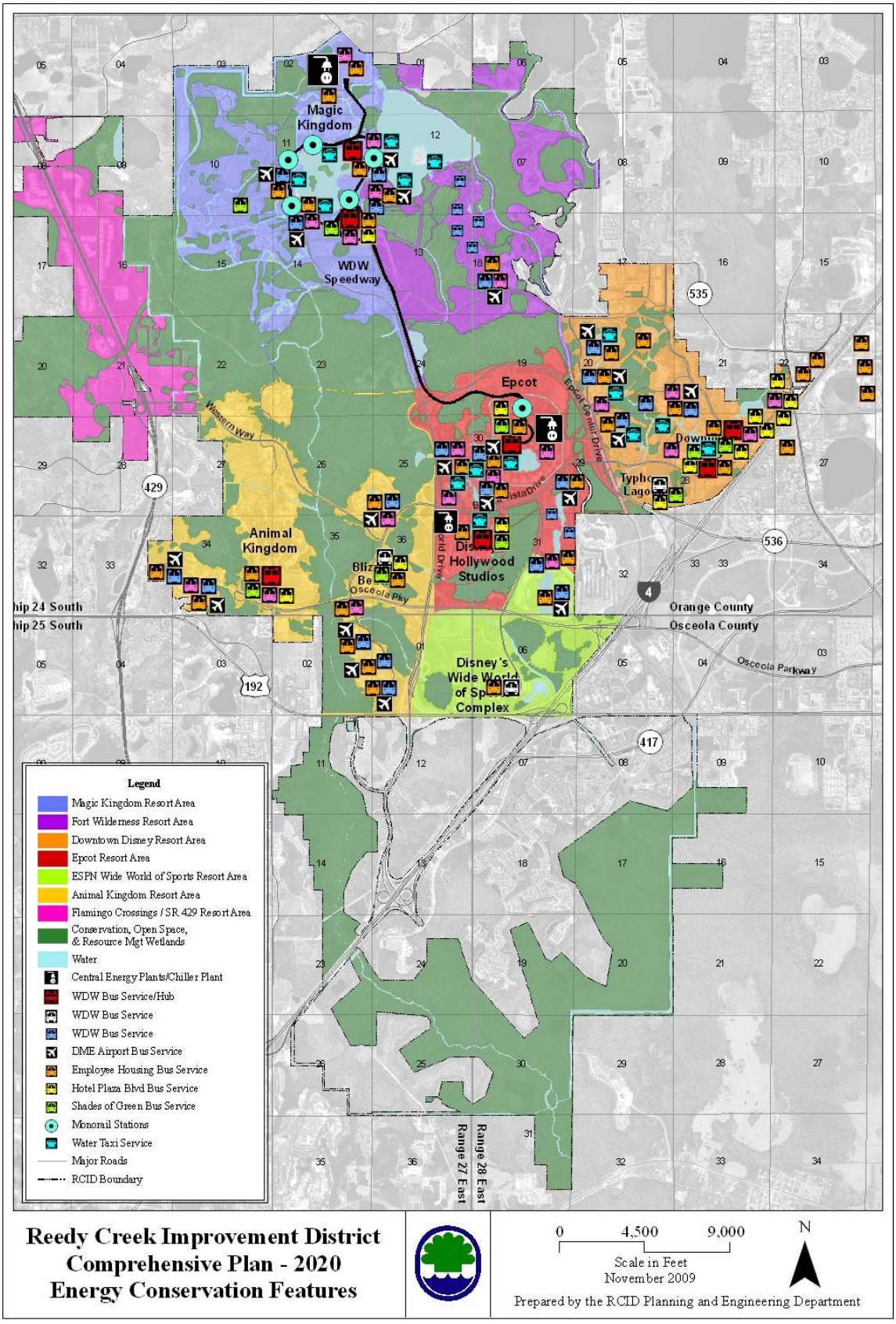
The Flamingo Crossings Resort Area is under development and will consist of a pedestrian oriented mixed use retail, dining, lodging, and commercial district oriented to drivers approaching the District from the north via the Turnpike and SR 429. At this point in time roadway and utility infrastructure for Phase 1 is complete, but no other development has commenced.

There are two resort areas with a limited mix of uses at this time – the Fort Wilderness and ESPN Wide World of Sports Resort Areas. The Fort Wilderness Resort Area consists of a resort, a golf course, and a full service campground with a dinner show, horseback riding, trails, etc. There are a number of undeveloped parcel for future use. The ESPN Wide World of Sports Resort Area consists of the sports complex and one resort with another resort under construction. This resort area has substantial undeveloped land and offers future potential as a mixed use/multimodal transportation hub.

As shown on Figure 2-7 the District has two Central Energy Plants that generate electricity, chilled water for air conditioning, and hot water for space heating, domestic hot water, air-conditioning humidity control, and kitchen use located at the North Service Area in the Magic Kingdom Resort Area and at Epcot in the Epcot Resort Area. Also located in the Epcot Resort Area is a Chiller Plant at Disney's Hollywood Studios which provides chilled water for air conditioning to the Studio. The District also operates two separate natural gas distribution system; the "Theme Park" system serves district customers in the northern portion of RCID and the "Residential" system serves customers in the southern portion of the District. Electricity is also provided to various RCID customers by Progress Energy.

Natural energy conservation features are discussed in the Conservation Element.

Figure 2-7: Energy Conservation Features



Reedy Creek Improvement District
Comprehensive Plan

TRANSPORTATION ELEMENT

Part A: Policies

INTRODUCTION

The Transportation Element updates and supersedes the District's previous (1991) Traffic Circulation Element. The element identifies the transportation infrastructure that is required to support the development anticipated in the Future Land Use Element through 2020. The Transportation Element also establishes the policies required to effect trip-making characteristics such as trip length and modal choice, in conjunction with sound land use planning. The element is divided into two components. The first component, "Policies," consists of goals, objectives and policies, as well as required maps and tables. The second component, "Supporting Data and Analysis," consists of the supporting documentation that provides the basis for the goals, objectives, and policies.

GOALS, OBJECTIVES, AND POLICIES

GOAL

It is the goal of the Reedy Creek Improvement District to continue to maintain a safe, convenient and efficient balanced transportation system to meet the multi-modal capacity requirements of existing and future development.

Objective 1

To implement adopted roadway level of service standards, parking, and roadway design criteria.

Policy 1.1: The RCID shall adopt the following peak-season, peak-hour level of service standards for functionally classified roads in the District:

	State Facilities	County Facilities	RCID Facilities
Principal Arterial (Limited Access)	D	N/A	E
Principal Arterial (Major)	D	N/A	E
Minor Collector	E	E	E
Collector	N/A	E	E
Local Roads	N/A	N/A	N/A

Policy 1.2: A constrained facility designation shall be provided for CR 535 from Hotel Plaza Boulevard to I-4 and for Hotel Plaza Boulevard. For constrained facilities, a 15 percent degradation in average travel speeds or a 15 percent increase in traffic volume shall be permitted in addition to the standards described above.

Policy 1.3: The RCID shall require a traffic impact analysis detailing trip generation, distribution and capacity analysis for development projects during a preliminary and final site plan review process. Roadway capacity shall be based on those listed in Tables 3-14 and 3-17, unless ART-PLAN level of service analyses have been conducted for specific roadway segments to determine a level of service capacity that more accurately reflects existing conditions.

Policy 1.4: The RCID shall ensure the use of sound and proper roadway design criteria to maintain adequate open space, drainage, and safety standards.

Policy 1.5: The RCID shall ensure that developments provide for safe and convenient on-site traffic flow and vehicle parking through the implementation of standards set forth in the Land Development Regulations that regulate the number and sizes of on-site parking spaces, parking for disabled persons, loading, and the design and control of mechanisms for on-site vehicular and pedestrian traffic circulation.

Policy 1.6: The RCID shall control access points to roadway facilities by reducing median and curb cuts, and specifying joint access requirements for adjacent building sites during the preliminary and final site plan review process.

Policy 1.7: The RCID shall adopt Florida Department of Transportation standards as defined in FAC 14-97.003 (February 1991) regarding access to State facilities within the RCID.

Policy 1.8: At-grade intersections shall be prohibited on US 192 between World Drive and I-4.

Objective 2

To improve the District's transportation system in a manner that is consistent with the timing and location of the land uses designated in the Future Land Use Element.

Policy 2.1: The RCID shall annually ensure that changes to the Future Land Use Element are reflected in the recommended road network contained in the Transportation Element and that any changes to the recommended road network are reflected in a phased program in the Capital Improvements Element.

Policy 2.2: The RCID shall maintain a monitoring program to determine the current modal split between transit and private automobile. The District shall implement measures to ensure that adequate roadway capacity is in place to accommodate a multi-modal transportation system and that steps are taken to increase the use of non-automobile transportation modes. (Amended by Ordinance/Resolution No. 510 adopted 07/28/2010 and Ordinance Nos. 128 and 125 adopted 07/14/2010)

Policy 2.3: The RCID shall implement the functional roadway classification system by requiring development to comply with the setback, right-of-way, centerline, and dedication provisions contained in the Land Development Regulations.

Policy 2.4: The RCID shall encourage landowners and business operators to provide transit service, including watercraft, monorail, buses, and/or other modes of transportation, to hotels and attractions within the District.

Policy 2.5: The RCID shall require all hotels in the District to promote the uses of available transit service by supplying guests with transit information and notifying them of existing transit service and schedules.

Policy 2.6: As part of the Land Development Regulations and in conjunction with the policies set forth in the Future Land Use Element, the RCID shall encourage mixed use development to reduce the need for vehicles to travel outside of the District.

Objective 3

To adopt standards and criteria for pedestrian and other non-motorized facilities.

Policy 3.1: The RCID shall use the preliminary and final site plan review process to require development projects to include traffic flow systems designed to minimize conflicts between vehicular and pedestrian or bicycle traffic.

Policy 3.2: The RCID shall encourage the development of bicycle facilities and pedestrian paths within the resorts, theme parks, commercial areas, and other self-contained developments located within its boundaries.

Objective 4

The District shall participate with other state and local agencies and governments in the area to develop roadway and transit programs and projects outside the District.

Policy 4.1: To reduce the impacts of guest vehicle trips on roadways outside the District, provision of directional signage shall be coordinated with area local governments, the Orlando/ Orange County Expressway Authority, and the Florida Department of Transportation.

Policy 4.2: The RCID shall coordinate with FDOT, Osceola County, Orange County, and other appropriate government entities to pursue recommendations contained in the I-4 PD&E, the Orange County and Osceola County Comprehensive Plans, the Metropolitan Orlando Urban Area Transportation Plan, and any future planning studies which address transportation facilities and conditions within or around its boundaries.

Policy 4.3: The RCID shall actively participate in OUATS, and other studies to coordinate with all appropriate local, regional, state, and federal agencies regarding the location, classification, planning, and construction of needed roads in the metropolitan area.

Policy 4.4: The RCID shall continue to conduct an annual traffic monitoring program for public roadways within the RCID, as well as the following adjacent roadways: I-4, US 192, SR 535, CR 535, SR 536, Apopka-Vineland Road, and Reams Road. Appropriate

capacities, daily traffic volumes, and peak-hour traffic volumes shall be determined through this on-site and off-site monitoring program.

Policy 4.5: The data described in Policy 4.5 shall be used on a continuous basis for evaluating projects, establishing road improvement priorities, and determining the extent of District-generated traffic impacts on road facilities outside the District.

Policy 4.6: The RCID shall continue to coordinate with the Central Florida Regional Transit Authority (e.g., LYNX), Orange County, and Osceola County on the subject of increasing the level of bus service for visitors and employees.

Policy 4.7: The District shall continue its participation in Metroplan Orlando by continuing its voting membership on the MPO Technical Committee.

Policy 4.8: The RCID shall coordinate with FDOT, Osceola County, Orange County, and other appropriate government entities or regional transit authorities to facilitate high speed rail, commuter rail, and bus rapid transit services. (Added by Ordinance/Resolution No. 510 adopted 07/28/2010 and Ordinance Nos. 128 and 125 adopted 07/14/2010)

Objective 5

The RCID shall acquire rights-of-way for transportation facility improvements described in this element.

Policy 5.1: The RCID shall use the preliminary and final site plan review process to coordinate the location and design of new roadway network facilities, transit corridors, and pedestrian facilities.

Policy 5.2: Rights-of-way shall be reserved at the minimum width required to accommodate construction of the number of lanes shown on the Future Transportation Network Maps (Figures 3-1 and 3-2).

Policy 5.3: The RCID shall ensure that developments comply with right-of-way width standards contained in the Land Development Regulations.

Objective 6

To provide for safe movement of motorized and non-motorized traffic.

Policy 6.1: By January 1, 2011, the RCID shall establish an annual monitoring program to assess motorized and non-motorized vehicle accidents within the District. (Amended by Ordinance/Resolution No. 510 adopted 07/28/2010 and Ordinance Nos. 128 and 125 adopted 07/14/2010)

Policy 6.2: An on-going program shall be established for implementing TSM measures such as traffic signal synchronization, enhanced roadway signage/markings, and use of turn lanes for project access to minimize traffic conflicts.

Policy 6.3: The District shall encourage mixed use development as a means of reducing trip lengths and reliance on motorized vehicles.

Policy 6.4: The District shall ensure that alternative modal choices are available to all major trip generators and attractors within the District.

Objective 7

To coordinate long-range transportation planning activities, including future updates of the RCID Comprehensive Plan, with the programs and planning activities of regional and state agencies, including the Florida Department of Transportation (FDOT), the Florida Transportation Commission, the Central Florida Regional Transportation Authority, and the Metropolitan Planning Organization (MPO).

Policy 7.1: The RCID shall establish strategies, agreements, or other mechanisms to coordinate the implementation of its Transportation Element with other local governments and regional and state agencies. These mechanisms shall include coordination with FDOT's Adopted Work Program, participation in MPO technical committees, participation in future planning studies that may affect transportation conditions in and around the RCID, and coordination of RCID transportation and transit studies with nearby local governments and applicable regional and state agencies.

Policy 7.2: The RCID shall continue to develop and implement strategies which facilitate alternatives to the use of Interstate 4 for local traffic such that interregional and intrastate functions may be protected. These strategies may include, but are not limited to, development of alternative roadway facilities, new directional signage, and expansion of local transit systems.

Objective 8

To ensure that efficient transit services are provided, based upon existing and proposed major trip generators and attractors, safe and convenient terminals, and accommodation of the special needs of the transportation disadvantaged.

Policy 8.1: Transit service shall be provided to the major trip generators and attractors within the District.

Policy 8.2: Parking shall be located so as to encourage use of alternative transportation modes, such as transit, water taxi, bicycling, and walking.

Policy 8.3: Existing and proposed transit stops, terminals, and vehicles shall be designed and maintained to ensure the safety of pedestrians. Existing transit stops and terminals shall be re-evaluated when traffic circulation patterns change based on infrastructure improvements or new development.

Policy 8.4: Existing and proposed transit stops, terminals, and vehicles shall accommodate the transportation disadvantaged, consistent with the Americans with Disabilities Act (ADA) and the Florida Accessibility Code.

RULE 9J-5.019 COMPLIANCE

9J-5.019(2) Existing Transportation Data Requirements

(a)2c Public transit rights-of-way and exclusive public transit corridors

There are no transit rights-of-way or exclusive public transit corridors within the District.

(a)4 Port facilities

There are no public deepwater port facilities within the District.

(a)5 Airport facilities including clear zones and obstructions

There are no airport facilities within the District.

(a)6 Freight and passenger rail lines and terminals

There are no freight and passenger rail lines or terminals within the District.

(b)2 Capacity of significant parking facilities and duration limitations (long-term or short-term), where applicable.

There are no public parking facilities within the District.

9J-5.019(3) Transportation Analysis Requirements

The following Rule 9J-5.019 (3) analysis requirements are addressed in a manner different from the standard or are not relevant due to the unique character of RCID:

(c) An analysis of the adequacy of the existing and projected transportation system to evacuate the coastal population prior to an impending natural disaster.

There is no coastal population in RCID.

(d) An analysis of the compatibility between the future land use and transportation elements around airports.

There is no airport within or adjacent to RCID.

(f) The analysis shall address the effect of transportation concurrency management areas or transportation concurrency exception areas.

There are no concurrency management areas or concurrency exception areas within the District.

(j) An analysis which identifies land uses and transportation management programs necessary to promote and support public transportation systems in designated public transportation corridors.

There are no public transportation corridors within the District.

9J-5.019(4) Requirements for Transportation Goals, Objectives and Policies

6-9, 14, 17-21 Requirements relating to ports, airports, or related facilities

There are no ports, airports, or related facilities within the District.

16 Establishment of measures for the acquisition and preservation of existing and future public transit rights-of-way and exclusive public transit corridors

There are no public transit rights-of-way or exclusive public transit corridors existing or proposed within RCID.

9J-5.019(5) Future Transportation Map

The following Rule 9J-5.019 (5) map requirements are shown in a manner different from the standard or are not relevant due to the unique character of RCID.

(a)1e Parking facilities that are required to achieve mobility goals

There are no significant public parking facilities projected to be needed to meet mobility goals. Private parking facilities will continue to be provided, as appropriate.

(a)2c Public transit rights-of-way and exclusive public transit corridors

There are no public transit rights-of-way or exclusive public transit corridors proposed within RCID.

(a)3 Transportation concurrency management areas or exception areas

There are no concurrency management areas proposed in RCID.

(a)4 Transportation concurrency exception areas

There are no concurrency exception areas proposed in RCID.

(a)5 Significant bicycle and pedestrian facilities

There are no public bicycle facilities proposed within the District, as there is not sufficient permanent population to create a demand for same. Private bicycle and pedestrian facilities may continue to be developed.

(a)6 Port facilities

There are no public deepwater port facilities existing or proposed within the District.

(a)7 Airport facilities including clear zones and obstructions

There are no airport facilities existing or proposed within the District.

(a)8 Freight rail lines

There are no freight rail lines or terminals existing or proposed in the District.

Figure 3-1: 2015 Roadway Network

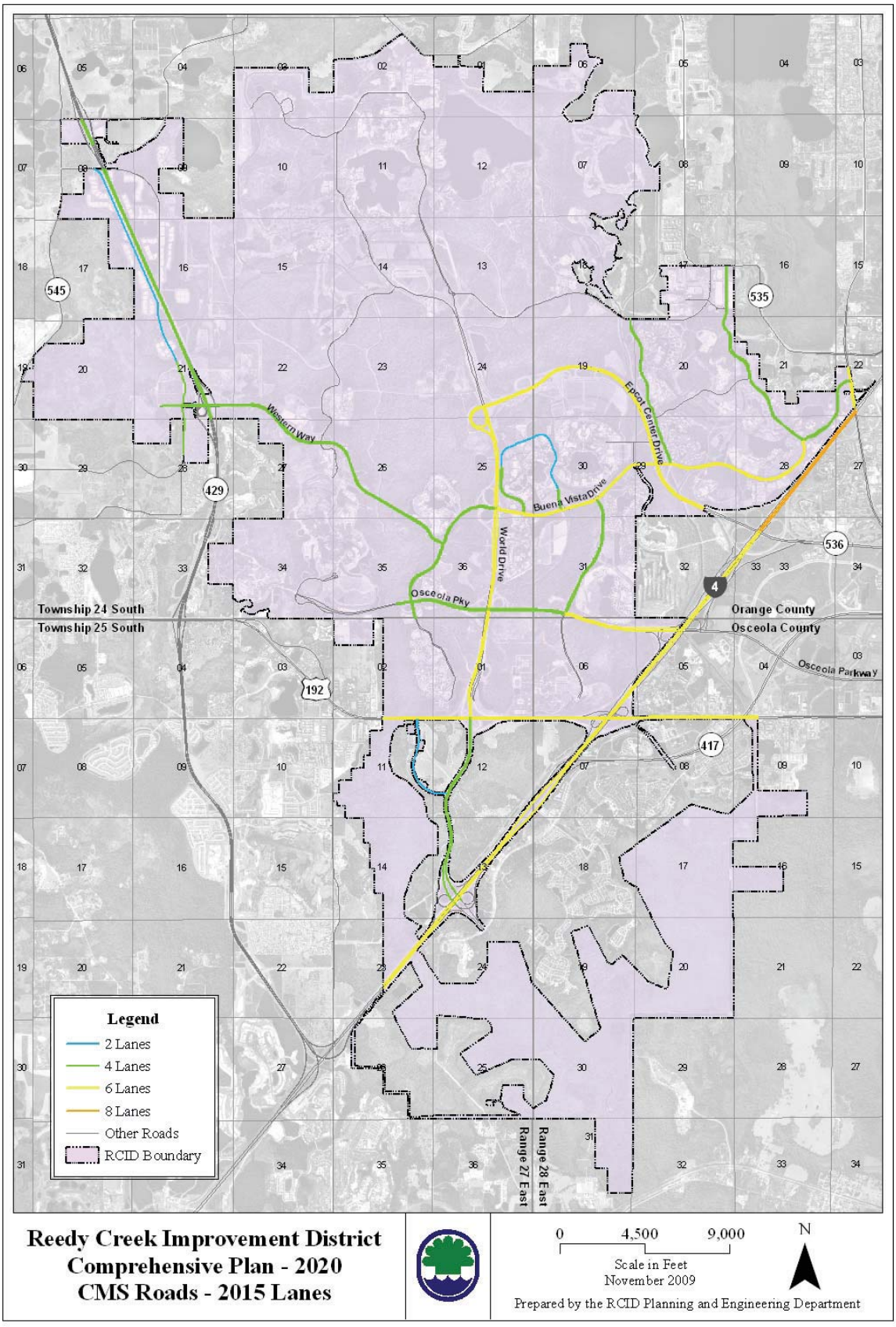
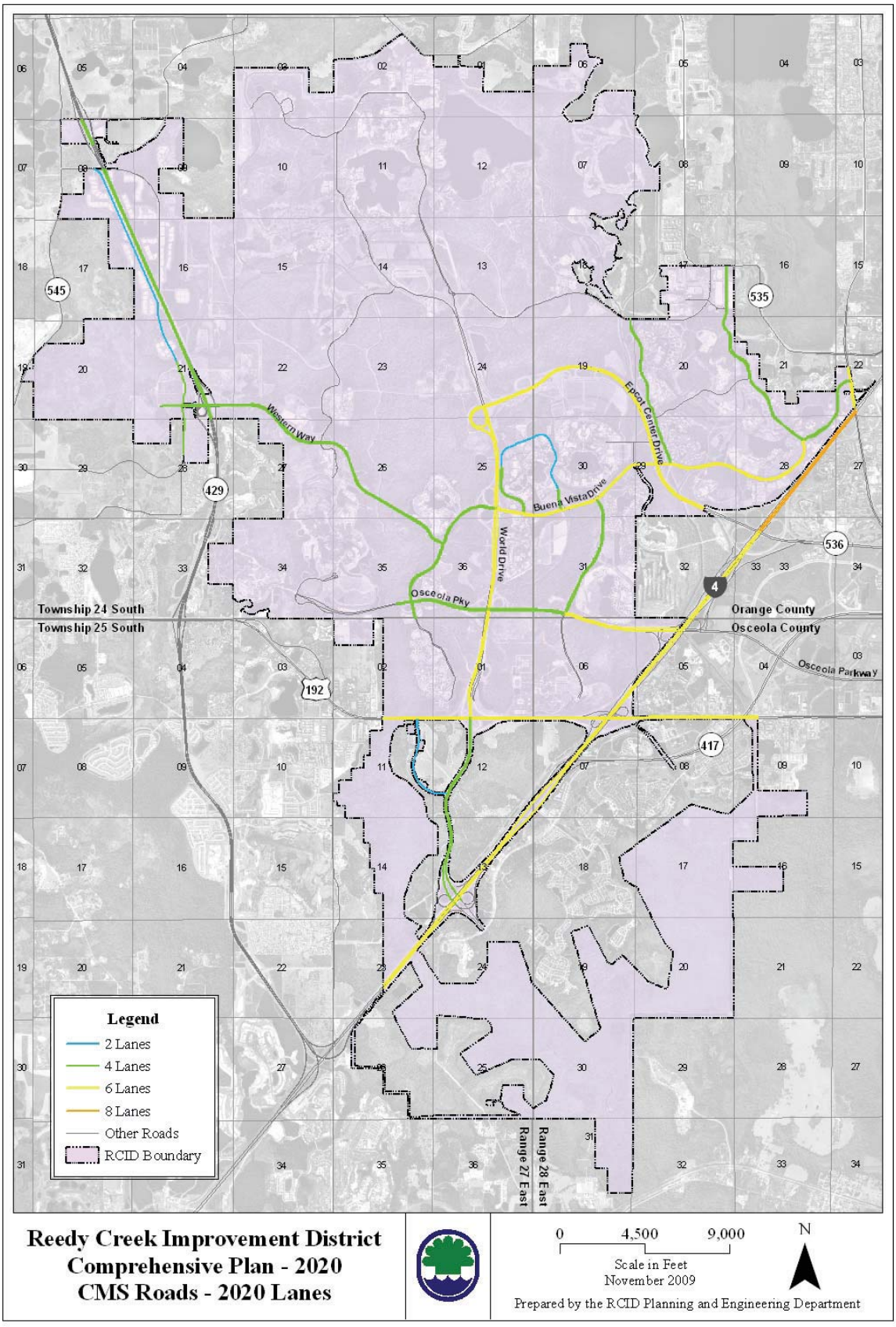


Figure 3-1: 2020 Roadway Network



Reedy Creek Improvement District
Comprehensive Plan

TRANSPORTATION ELEMENT

Part B: Supporting Data and Analysis

PURPOSE

The Transportation Element of the Comprehensive Plan provides guidance in determining the intermodal transportation network required to accommodate future development. The development of this element has been coordinated with the development of the Future Land Use Element to ensure that resource needs identified for transportation address the needs of future land use patterns.

The "Supporting Data and Analysis" component of the Transportation Element is composed of three major sections. The first section documents functional and administrative road classifications, capacities and level of service thresholds, existing traffic volumes, and existing levels of service. The second section documents anticipated future transportation conditions. Rule 9J-5 requires transportation analysis for a short-range planning horizon of five years and a long-range planning horizon of at least 10 years. For the RCID Comprehensive Plan, 2015 and 2020 are used as the planning analysis years. A recommended transportation network is provided in the third section.

According to 9J-5.019, the purpose of a transportation element is to plan for a multi-modal transportation system that places emphasis on public transportation. Because of the unique transportation characteristics associated with the RCID attractions, the content of this element varies slightly from the requirements of Rule 9J-5. There is an extensive private transit system within the District. This intermodal system includes monorails, various types of water taxis and ferries and an extensive bus system, as well as interconnected bicycle and pedestrian ways. An overview of these facilities is provided in the supporting data and analysis and has been considered in the determination of public facility needs. Because of the extensive private facilities, public capital improvement requirements for transportation may seem less than would otherwise be expected.

Intergovernmental coordination and other issues required by 9J-5 are addressed in the goals, objectives, and policies. As a result of the land use trip characteristics in the RCID, as well as the trip characteristics of land uses adjacent to the RCID, transportation issues outside the District's boundaries are addressed in the element.

The data and analysis in this element are consistent with the planning time frames (2015 and 2020) and Capital Improvement Program years (FY 2011 – FY 2015) used throughout the Comprehensive Plan. Updated data, analysis and programmed traffic improvement projects for the current year and future five-year time frame are presented in the Capital Improvement Program Update (CIP Update) of the Capital Improvements Element. Therefore, the CIP Update presents and implements the most up-to-date transportation conditions and planning activities of the District.

EXISTING CONDITIONS

Access to the Reedy Creek Improvement District is provided principally by I-4, US 192, SR 536, Osceola Parkway, SR/CR 535, and to a lesser extent by the Central Florida GreeneWay (SR 417). Reams Road also provides a minor access route to the North Service Area of the District. Within the District, there are a number of public, RCID-maintained arterial and collector facilities, as well as privately maintained roadways.

This section of the Transportation Element presents an analysis of existing transportation conditions in RCID with an emphasis on roads subject to concurrency (CMS Roads). There are a total of 46.7 centerline miles of roadways in the District's Concurrency Management System with 38.8 miles or 83 percent located within the District Boundaries. The first step in the analysis is to assign a functional and administrative classification to each of the public roadways within the RCID. Capacities and level of service thresholds are then defined and compared to existing peak-hour traffic volumes to determine existing levels of service. The existing conditions analysis also includes a discussion of programmed and planned improvements, existing public and private transit service, accident (crash) analysis, pedestrian mobility, availability of transportation facilities to serve existing land uses, growth trends, and travel patterns, and a review of compliance with Rule 9J-5.019.

ROADWAY CLASSIFICATION

A roadway system can be classified in two ways—functionally and administratively. Functional classification defines a facility's physical and operational characteristics and administrative classification refers to the governmental entity that is responsible for maintaining the roadway. As part of the existing conditions analysis, the functional and administrative classifications of roads within the RCID have been provided.

Functional Classification

The function of roadways is two-fold: one function is to provide access to land uses adjacent to the roadway and the other is to provide mobility through an area. These two elements have an inverse relationship and demand a careful balancing throughout an area-wide roadway system. As access to a roadway increases the mobility of through-traffic decreases. Inversely, roadway facilities designed for mobility generally have higher speeds, more limited access, and more capacity.

Public roads within the RCID are functionally classified into four general categories for purposes of analysis in this Element. These categories and descriptions of each are as follows:

- **Principal Arterial (Limited Access) –** A roadway in this category serves major movements of traffic entering or leaving the District. This roadway is generally a multi-lane divided facility designed to serve large volumes of high-speed traffic. Access from adjoining parcels is prohibited, and access to this facility is limited to entrance and exit ramps located at major roadways. Roadway segments within the RCID that have no at-grade intersections are classified as limited access facilities in this Element. These facilities include portions of US 192 and Osceola Parkway and all of World Drive, EPCOT Center Drive, SR 429, and I-4 within the District.

- **Principal Arterial –** Like limited access roadways, these facilities serve major movements of traffic entering or leaving the District. Generally, access to adjacent land is not prohibited; however, since mobility is the primary function of this facility, access is strictly controlled. Principal arterials include those portions of Osceola Parkway and US 192 with at-grade crossings, CR 535 and portions of Western Way and Flamingo Crossings.

- **Minor Arterial –** This roadway is similar to a principal arterial but is designed to serve lower volumes of traffic, as well as provide connections to the principal arterial system. This facility has a lower degree of mobility than a principal arterial. This type of roadway allows greater access to

adjacent land than the previous two facilities. Buena Vista Drive, Hotel Plaza Boulevard, and portions of Flamingo Crossings Boulevard and Western Way fall into this classification.

- **Collector –** This classification serves internal traffic circulation within the District and connects areas to the arterial system. Land access is a function of this facility, in addition to local traffic movement. Bonnet Creek Parkway, Epcot Resorts Boulevard, Victory Way, Road B-1 (Griffin Road), and Flagler Avenue are designated as Collectors.

The functional classification of public roadways in the District is shown in Table 3-1 and in Figure 3-3.

Administrative Classification

The administrative classification of public roads in the District relates to the agency that operates and maintains the facility. Four different governmental entities maintain roadways within the District. The three administrative classifications are State (Florida Department of Transportation), Orange County, Osceola County, and the RCID. State-maintained facilities include I-4, US 192, and SR 429. Orange County maintains CR 535 north of I-4 and Osceola County maintains a portion of Osceola Parkway. RCID-maintained facilities include the following:

Principal Arterial (Limited Access) / Principal Arterial

- World Drive – from north of US 192 to Epcot Center Drive and from north of the I-4 to south of the US 192
- Epcot Center Drive – from north of the I-4 to World Drive
- Osceola Parkway – from west of I-4 interchange to the Reedy Creek Bridge west of Buena Vista Drive
- Western Way – from west of SR 429 to Buena Vista Drive

Minor Arterials

- Buena Vista Drive – from CR 535 to south of Osceola Parkway
- Hotel Plaza Boulevard – from CR 535 to Buena Vista Drive
- Western Way – from Flamingo Crossings Boulevard to Flagler Avenue
- Flamingo Crossings Boulevard – from CR 545 (Avalon Road) to Western Way

Collectors

- Bonnet Creek Parkway – from Buena Vista Drive to Vista Way
- EPCOT Resorts Boulevard – from Buena Vista Drive to Buena Vista Drive
- Victory Way – from Osceola Parkway to Buena Vista Drive
- Road B-1 (Griffin Road) – from World Drive to US 192
- Flagler Avenue – from Western Way to Flamingo Crossings Boulevard

The administrative classification of each roadway is presented in Table 3-1 and in Figure 3-4. The administrative classification is presented in terms of the governmental entity that is responsible for maintaining each segment of public roadway within the District.

Table 3-1: Existing Roadway Inventory

Roadway / Segment	Length (miles)	Number of Lanes	Maintenance Responsibility	Functional Classification
Interstate 4			State	PA (Ltd. Access)
S.W. RCID boundary to World Dr	1.19	6LD	State	PA (Ltd. Access)
World Dr to US 192	2.35	6LD	State	PA (Ltd. Access)
US 192 to Osceola Pkwy	1.18	6LD	State	PA (Ltd. Access)
Osceola Pkwy to Epcot Center Dr	1.25	6LD	State	PA (Ltd. Access)
Epcot Center Dr to CR 535	1.56	8LD	State	PA (Ltd. Access)
US 192				
East RCID boundary to I-4	1.53	6LD	State	Principal Arterial
I-4 to World Dr	1.36	6LD	State	PA (Ltd. Access)
World Dr to Road B-1 (Griffin Rd)	0.54	6LD	State	Principal Arterial
Road B-1 (Griffin Rd) to West RCID boundary	0.34	6LD	State	Principal Arterial
SR 429				
South of Western Way	0..14	4LD	State	PA (Ltd. Access)
North of Western Way	2.87	4LD	State	PA (Ltd. Access)
CR 535				
I-4 to Hotel Plaza Blvd	0.26	6LD	Orange County	Principal Arterial
Hotel Plaza Blvd to Apopka-Vineland Rd	0.14	6LD	Orange County	Principal Arterial
World Drive				
I-4 to Road B-1 (Griffin Rd)	1.15	4LD	RCID	PA (Ltd. Access)
Road B-1 (Griffin Rd) to US 192	0.83	4LD	RCID	PA (Ltd. Access)
US 192 to Osceola Pkwy	1.12	6LD	RCID	PA (Ltd. Access)
Osceola Pkwy to Buena Vista Dr	2.28	6LD	RCID	PA (Ltd. Access)
Buena Vista Dr to EPCOT Center Dr	1.05	6LD	RCID	PA (Ltd. Access)
Epcot Center Drive				
I-4 to Buena Vista Dr	0.68	6LD	RCID	PA (Ltd. Access))
Buena Vista Dr to World Dr	2.93	6LD	RCID	PA (Ltd. Access)
Osceola Parkway				
I-4 to Victory Way	1.16	6LD	RCID	PA (Ltd. Access)
Victory Way to World Dr	0.74	4LD	RCID	Principal Arterial
World Dr to Buena Vista Dr	0.96	4LD	RCID	PA (Ltd. Access)
Western Way				
Buena Vista Dr to Bear Island Rd	1.69	4LD	RCID	Principal Arterial
Bear Island Rd to SR 429	1.52	4LD	RCID	Principal Arterial
Flamingo Crossings Blvd to Flagler Ave	0.25	4LD	RCID	Minor Arterial
Flamingo Crossing Boulevard				
SR 545 to Flagler Ave	2.13	2L	RCID	Minor Arterial
Flagler Ave to Western Way	0.47	4LD	RCID	Minor Arterial
Buena Vista Drive				
CR 535 to Disney Vacation Club Way	1.23	4LD	RCID	Minor Arterial
Disney Vacation Club Way to Hotel Plaza Blvd	0.85	4LD	RCID	Minor Arterial
Hotel Plaza Blvd to Team Disney	0.64	6LD	RCID	Minor Arterial
Team Disney to Typhoon Lagoon	0.44	6LD	RCID	Minor Arterial
Typhoon Lagoon to Bonnet Creek Pkwy	0.56	6LD	RCID	Minor Arterial
Bonnet Creek Pkwy to Backstage Lane	0.36	6LD	RCID	Minor Arterial
Backstage Lane to Victory Way	0.53	6LD	RCID	Minor Arterial
Victory Way to Epcot Resorts Blvd East	0.37	6LD		
Epcot Resorts Blvd East to Epcot Resorts Blvd West	0.40	6LD	RCID	Minor Arterial
Epcot Resorts Blvd West to World Dr	0.26	6LD	RCID	Minor Arterial
World Dr to Western Way	0.73	4LD	RCID	Minor Arterial
Western Way to Osceola Pkwy	0.90	4LD	RCID	Minor Arterial
Hotel Plaza Boulevard				
West of CR 535	0.44	4LD	RCID	Minor Arterial
East of Buena Vista Dr	0.39	4LD	RCID	Minor Arterial
Bonnet Creek Parkway				
Buena Vista Dr to Overpass Rd	0.24	4LD	RCID	Collector
Overpass Rd to Disney Vacation Club Way	0.25	4LD	RCID	Collector
Disney Vacation Club Way to Vista Way	1.05	4LD	RCID	Collector
EPCOT Resorts Boulevard				
Buena Vista Dr to Water Bridge	0.21	4LD	RCID	Collector
Water Bridge to Dolphin Hotel	1.21	2L	RCID	Collector
Dolphin Hotel to Buena Vista Dr	0.60	4LD	RCID	Collector
Victory Way				
Osceola Pkwy to Buena Vista Dr	0.74	4LD	RCID	Collector
Road B-1 (Griffin Road)				
World Dr to US 192	0.97	2L	RCID	Collector
Flagler Avenue				
Western Way to Flamingo Crossings	0.49	2LD	RCID	Collector

Figure 3-3: RCID Roadways – Existing Functional Classification

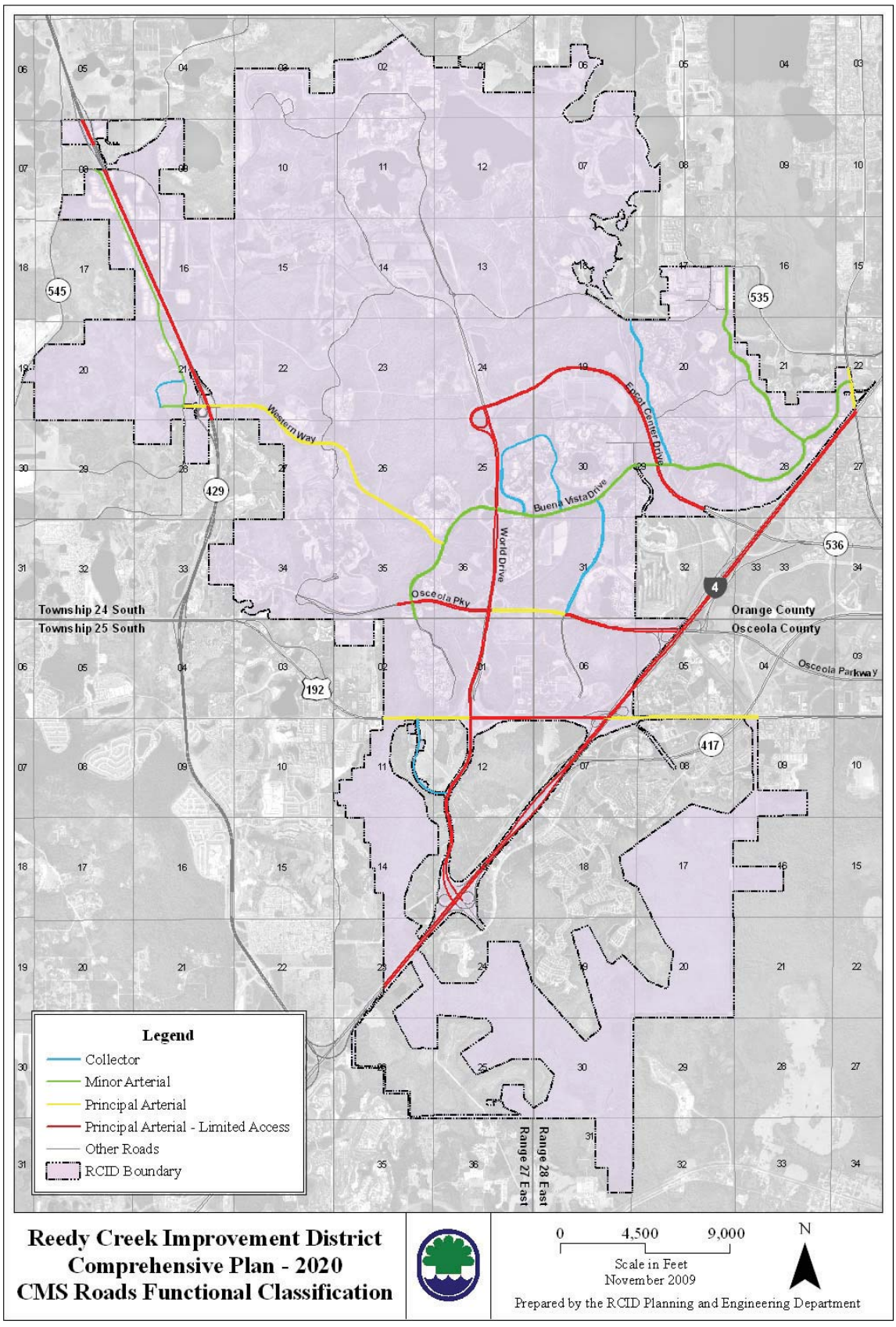
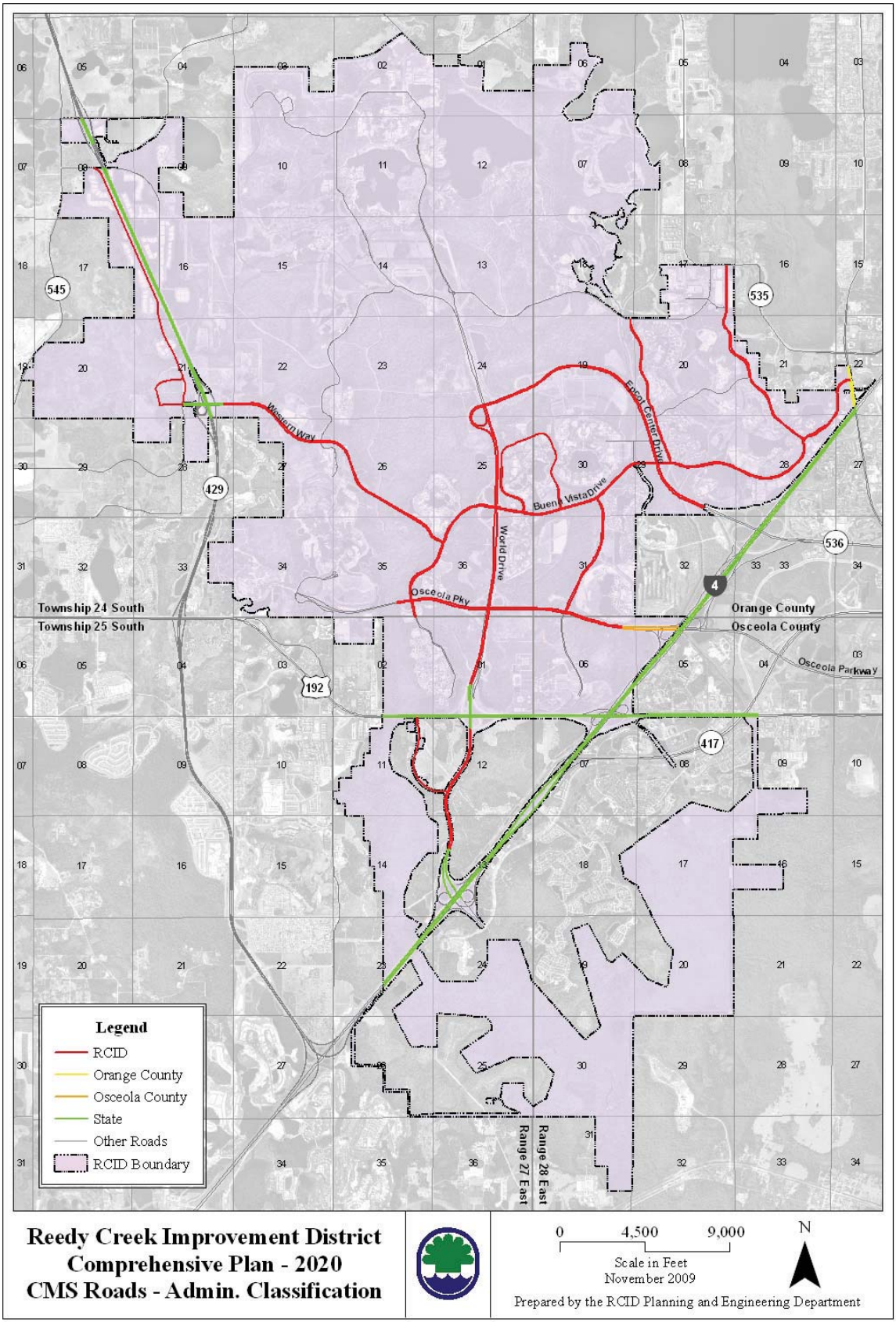


Figure 3-4: RCID Roadways – Existing Administrative Classification



Roadway Classification Inventory

The length of each of the classified roadways within the RCID is presented in Table 3-1. The length is presented in terms of centerline miles. Table 3-2 provides a summary of the centerline miles of public roadways within the RCID by functional and administrative classification. As indicated in Table 3-2, roughly two-thirds of the classified roadways within the District are maintained by the RCID. The other third are maintained by the State, with a small segment of CR 535 maintained by Orange County.

Table 3-2: Existing CMS Roadway Classification Inventory

	Centerline Miles of RCID Functionally Classified CMS Roadways				
Jurisdiction	**Principal Arterial (Limited Access) (%)**	**Principal Arterial (%)**	**Minor Arterial (%)**	**Collector (%)**	**Total (%)**
State	12.9	2.8	0.0	0.0	15.7
County	0.0	1.0	0.0	0.0	1.0
RCID	8.7	4.1	10.9	6.3	30.0
Total	**21.6**	**7.9**	**10.9**	**6.3**	**46.7**

As shown in Table 3-2, 46 percent of the District's existing public roadway centerline miles are limited access roadways. With the majority of the District's existing roadway system structured on high order facilities, substantial mobility is provided within the RCID. Roughly 40 percent of the limited access facilities are maintained by the District, with the other 60 percent maintained by the State.

EXISTING TRAFFIC CHARACTERISTICS

Traffic Volumes

Roadway traffic counts for the Element for most segments were collected during July and August 2008. FDOT 2008 counts were used for Interstate 4 and US 192. Summer months represent the typical peak season for the tourist-related uses within the District. During these periods, the theme parks are typically at or near capacity, as are the hotels. Table 3-3 presents the daily and p.m. peak-hour traffic volumes for all classified roadways.

Table 3-3: 2008 Traffic Counts

Roadway / Segment	# of Lanes	LOS Std.	LOS Capacity	ADT	Peak Hr/ Peak Dir	Deficiency
Interstate 4						
S.W. RCID boundary to World Dr	6LD	D	5,580	92,000	4,655	
World Dr to US 192	6LD	D	5,580	78,000	3,947	
US 192 to Osceola Pkwy	6LD	D	5,580	117,000	5,920	Over Capacity
Osceola Pkwy to Epcot Center Dr	6LD	D	5,580	117,000	5,920	Over Capacity
Epcot Center Dr to CR 535	8LD	D	7,420	117,000	5,920	
US 192						
East RCID boundary to I-4	6LD	D	2,680	52,300	2,760	Over Capacity
I-4 to World Dr	6LD	D	5,580	64,500	2,967	
World Dr to Road B-1 (Griffin Rd)	6LD	D	2,840	58,000	2,668	
Road B-1 (Griffin Rd) to West RCID boundary	6LD	D	2,940	61,500	2,829	
SR 429						
South of Western Way	4LD	D	3,720	11,073	511	
North of Western Way	4LD	D	3,420	14,246	663	
CR 535 (15% increase for constrained facility)						
I-4 to Hotel Plaza Blvd	6LD	E	3,255	72,938	2,528	
Hotel Plaza Blvd to Apopka-Vineland Rd	6LD	E	3,255	72,938	2,528	
World Drive						
I-4 to Road B-1 (Griffin Rd)	4LD	E	4,020	16,451	743	
Road B-1 (Griffin Rd) to US 192	4LD	E	4,020	14,034	656	
US 192 to Osceola Pkwy	6LD	E	6,200	52,159	2,495	
Osceola Pkwy to Buena Vista Dr	6LD	E	6,200	52,767	2,168	
Buena Vista Dr to EPCOT Center Dr	6LD	E	6,200	39,259	1,422	
Epcot Center Drive						
I-4 to Buena Vista Dr	6LD	E	6,200	66,889	3,011	
Buena Vista Dr to World Dr	6LD	E	6,200	15,345	785	
Osceola Parkway						
I-4 to Victory Way	6LD	E	6,200	36,394	1,987	
Victory Way to World Dr	4LD	E	2,030	25,247	1,046	
World Dr to Buena Vista Dr	4LD	E	4,020	33,857	1,818	
Western Way						
Buena Vista Dr to Bear Island Rd	4LD	E	1,960	5,055	420	
Bear Island Rd to SR 429	4LD	E	1,960	5,241	479	
Flamingo Crossings Blvd to Flagler Ave	4LD	E	1,700	Open 2010	Open 2010	
Flamingo Crossing Boulevard						
SR 545 to Flagler Ave	2L	E	1,440	Reopen '09	Reopen '09	
Flagler Ave to Western Way	4LD	E	1,700	Reopen '09	Reopen '09	
Buena Vista Drive						
CR 535 to Disney Vacation Club Way	4LD	E	1,960	6,629	312	
Disney Vacation Club Way to Hotel Plaza Blvd	4LD	E	1,960	10,219	471	
Hotel Plaza Blvd to Team Disney	6LD	E	2,570	28,826	1,187	
Team Disney to Typhoon Lagoon	6LD	E	2,830	31,721	1,124	
Typhoon Lagoon to Bonnet Creek Pkwy	6LD	E	2,830	39,312	1,386	
Bonnet Creek Pkwy to Backstage Lane	6LD	E	3,230	44,904	1,920	
Backstage Lane to Victory Way	6LD	E	3,230	44,904	1,920	
Victory Way to Epcot Resorts Blvd East	6LD	E	3,230	38,089	1,630	
Epcot Resorts Blvd East to Epcot Resorts Blvd West	6LD	E	3,230	34,377	1,432	
Epcot Resorts Blvd West to World Dr	6LD	E	3,230	31,517	1,294	
World Dr to Western Way	4LD	E	1,870	17,314	682	
Western Way to Osceola Pkwy	4LD	E	1,870	15,680	637	
Hotel Plaza Boulevard (15% increase for constrained fac.)						
West of CR 535	4LD	E	2,151	35,832	1,672	
East of Buena Vista Dr	4LD	E	2,151	33,684	1,514	
Bonnet Creek Parkway						
Buena Vista Dr to Overpass Rd	4LD	E	1,683	16,509	620	
Overpass Rd to Disney Vacation Club Way	4LD	E	1,683	18,699	690	
Disney Vacation Club Way Dr to Vista Way	4LD	E	2,029	13,251	565	
EPCOT Resorts Boulevard						
Buena Vista Dr to Water Bridge	4LD	E	1,216	7,134	244	
Water Bridge to Dolphin Hotel	2L	E	792	7,134	244	
Dolphin Hotel to Buena Vista Dr	4LD	E	1,274	8,034	207	
Victory Way						
Osceola Pkwy to Buena Vista Dr	4LD	E	1,764	13,289	752	
Road B-1 (Griffin Road)						
World Dr to US 192	2L	E	792	2,155	109	
Flagler Avenue						
Western Way to Flamingo Crossings	2LD	E	832	Open 2010	Open 2010	

TRAFFIC VOLUMES/LEVEL OF SERVICE

Level of Service Standards

Level of service (LOS) standards are qualitative measures that describe the operational conditions of a roadway. These standards indicate the quality of traffic flow as measured by driver satisfaction. A number of factors influence the level of service of a roadway. These include: speed and travel time, traffic interruptions, the maneuverability of a facility, safety, driver comfort, convenience, and operating costs. The FDOT 2009 Quality/Level of Service Handbook has deleted the LOS A service volumes, therefore this analysis will only consider five LOS designations. These five designations range from "B" to "F", and are defined in Table 3-4.

Table 3-4: Level of Service (LOS) Definitions

LOS Designation	Description
B	Denotes a steady flow of traffic, with only slight delays in vehicle movement and speed. All queues clear in a single signal cycle.
C	Denotes a reasonably steady, high-volume flow of traffic, with some limitations on movement and speed, and occasional backups on critical intersection approaches.
D	Denotes the level where traffic nears an unacceptable flow. Intersections still function, but short queues develop and cars may have to wait through one signal cycle during short peaks.
E	Denotes traffic characterized by slow movement and frequent (although momentary) stoppages. This type of congestion is considered severe, but is not uncommon at peak traffic hours, with frequent stopping, long-standing queues, and blocked intersections.
F	Denotes unsatisfactory stop-and-go traffic characterized by "traffic jams" and stoppages of long duration. Vehicles at signalized intersections usually have to wait through one or more signal cycles, and "upstream" intersections may be blocked by long queues.

As part of the Comprehensive Planning process, local governments are required to set level of service standards for public facilities within their jurisdiction. The Department of Community Affairs requires that adopted LOS standards can be achieved and are financially feasible. The adopted LOS standards establish a minimum service level that the District must maintain for each of the public facilities included as part of the Transportation Element.

The LOS standards set for the public roadways within the RCID are as follows:

State Roads (I-4 and US 192)	**LOS D**
All Other Roads	**LOS E**

The adopted level of service standard for each individual roadway segment is presented in Table 3-5.

Capacity

To adequately evaluate existing transportation conditions, roadway capacity must be determined for each facility to be analyzed. The capacity of a roadway is defined as the maximum number of vehicles that have a reasonable expectation of passing over or through a given roadway segment or intersection under prevailing roadway and traffic conditions. For the purpose of this analysis, capacities for RCID and

County roadways were obtained from the FDOT 2009 Quality/Level of Service Handbook unless otherwise indicated. Capacities for State facilities are taken from the FDOT LOS_ALL spreadsheets.
All of the classified roadways highlighted in Figure 3-3 are within the Orlando Urban Area Boundary. As such, the level of service standards established for these roadways and the associated roadway capacities reflect an urban area condition.

The capacity of a roadway depends upon a number of factors. These include the average number of intersections per mile, the amount of green time per cycle, the free flow speed, the presence of medians, the presence of left turn lanes, and the type of signal system. Table 3-5 presents the peak-hour directional volumes associated with each LOS threshold ("B" to "E") for the classified roadways in the RCID. Those service volumes shown in boldface indicate the maximum capacity for each roadway segment. The maximum capacity is the service volume associated with the adopted LOS standard.

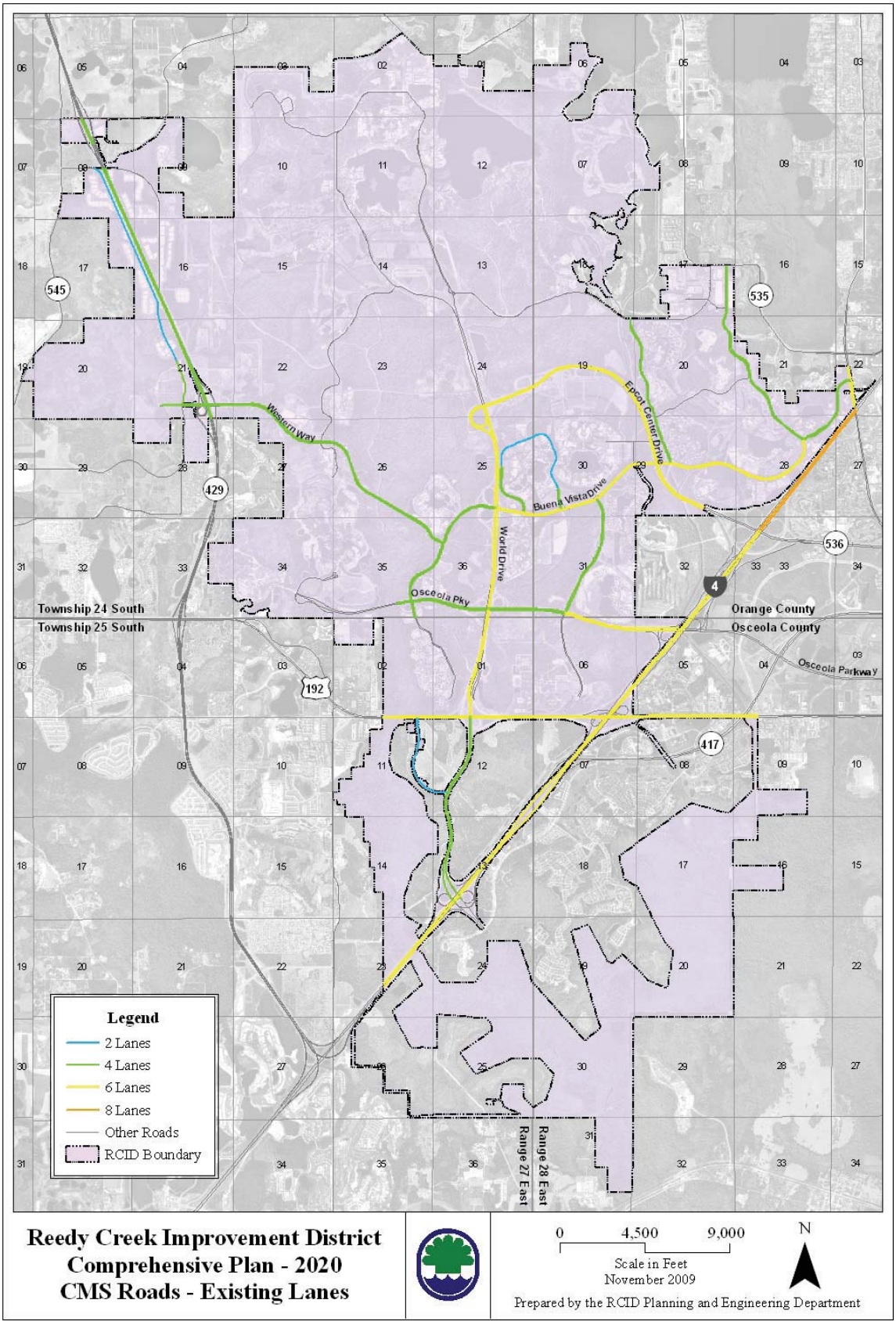
In addition to the aforementioned factors, the capacity of a roadway is dependent upon the number of travel lanes that make up the roadway. The existing number of lanes of each classified public roadway within the RCID is displayed in Figure 3-5.

Table 3-5: Existing Peak Hour / Peak Directional Level of Service Capacities

Roadway / Segment	LOS Std.	# of Lanes	Level of Service Capacities			
			B	C	D	E
Interstate 4						
S.W. RCID boundary to World Dr	D	6LD	3,300	4,580	**5,580**	6,200
World Dr to US 192	D	6LD	3,300	4,580	**5,580**	6,200
US 192 to Osceola Pkwy	D	6LD	3,300	4,580	**5,580**	6,200
Osceola Pkwy to Epcot Center Dr	D	6LD	3,300	4,580	**5,580**	6,200
Epcot Center Dr to CR 535	D	8LD	4,400	6,080	**7,420**	8,400
US 192						
East RCID boundary to I-4	D	6LD	-	2,080	**2,680**	2,830
I-4 to World Dr	D	6LD	3,300	4,580	**5,580**	6,200
World Dr to Road B-1 (Griffin Rd)	D	6LD	2,400	2,860	**2,940**	2,940
Road B-1 (Griffin Rd) to West RCID boundary	D	6LD	2,400	2,860	**2,940**	2,940
SR 429						
South of Western Way	D	4LD	2,200	3,020	**3,720**	4,020
North of Western Way	D	4LD	2,200	3,020	**3,720**	4,020
CR 535 (15% increase for constrained facility)						
I-4 to Hotel Plaza Blvd	E	6LD	-	2,392	3,082	**3,255**
Hotel Plaza Blvd to Apopka-Vineland Rd	E	6LD	-	2,392	3,082	**3,255**
World Drive						
I-4 to Road B-1 (Griffin Rd)	E	4LD	2,200	3,020	3,720	**4,020**
Road B-1 (Griffin Rd) to US 192	E	4LD	2,200	3,020	3,720	**4,020**
US 192 to Osceola Pkwy	E	6LD	3,300	4,580	5,580	**6,200**
Osceola Pkwy to Buena Vista Dr	E	6LD	3,300	4,580	5,580	**6,200**
Buena Vista Dr to EPCOT Center Dr	E	6LD	3,300	4,580	5,580	**6,200**
Epcot Center Drive						
I-4 to Buena Vista Dr	E	6LD	3,300	4,580	5,580	**6,200**
Buena Vista Dr to World Dr	E	6LD	3,300	4,580	5,580	**6,200**
Osceola Parkway						
I-4 to Victory Way	E	6LD	3,300	4,580	5,580	**6,200**
Victory Way to World Dr (*)	E	4LD	1,300	2,130	2,260	**2,300**
World Dr to Buena Vista Dr	E	4LD	2,200	3,020	3,720	**4,020**
Western Way						
Buena Vista Dr to Bear Island Rd	E	4LD	1,560	1,890	1,960	**1,960**
Bear Island Rd to SR 429	E	4LD	1,560	1,890	1,960	**1,960**
Flamingo Crossings Blvd to Flagler Ave	E	4LD	-	670	1,500	**1,700**
Flamingo Crossing Boulevard						
SR 545 to Flagler Ave	E	2L	400	800	1,140	**1,440**
Flagler Ave to Western Way	E	4LD	-	670	1,500	**1,700**
Buena Vista Drive						
CR 535 to Disney Vacation Club Way	E	4LD	1,560	1,890	1,960	**1,960**
Disney Vacation Club Way to Hotel Plaza Blvd	E	4LD	1,560	1,890	1,960	**1,960**
Hotel Plaza Blvd to Team Disney	E	6LD	-	1,050	2,330	**2,570**
Team Disney to Typhoon Lagoon	E	6LD	340	2,080	2,680	**2,830**
Typhoon Lagoon to Bonnet Creek Pkwy	E	6LD	340	2,080	2,680	**2,830**
Bonnet Creek Pkwy to Backstage Lane (*)	E	6LD	2,820	3,230	3,230	**3,230**
Backstage Lane to Victory Way (*)	E	6LD	2,820	3,230	3,230	**3,230**
Victory Way to Epcot Resorts Blvd East (*)	E	6LD	2,820	3,230	3,230	**3,230**
Epcot Resorts Blvd East to Epcot Resorts Blvd West (*)	E	6LD	2,820	3,230	3,230	**3,230**
Epcot Resorts Blvd West to World Dr (*)	E	6LD	2,820	3,230	3,230	**3,230**
World Dr to Western Way	E	4LD	-	1,330	1,770	**1,870**
Western Way to Osceola Pkwy	E	4LD	-	1,330	1,770	**1,870**
Hotel Plaza Boulevard (15% increase for constrained fac.)						
West of CR 535	E	4LD	-	1,530	2,036	**2,151**
East of Buena Vista Dr	E	4LD	-	1,530	2,036	**2,151**
Bonnet Creek Parkway						
Buena Vista Dr to Overpass Rd	E	4LD	-	1,197	1,593	**1,683**
Overpass Rd to Disney Vacation Club Way	E	4LD	-	1,197	1,593	**1,683**
Disney Vacation Club Way Dr to Vista Way	E	4LD	1,615	1,956	2,029	**2,029**
EPCOT Resorts Boulevard						
Buena Vista Dr to Water Bridge	E	4LD	-	865	1,151	**1,216**
Water Bridge to Dolphin Hotel	E	2L	459	738	792	**792**
Dolphin Hotel to Buena Vista Dr	E	4LD	1,014	1,229	1,274	**1,274**
Victory Way						
Osceola Pkwy to Buena Vista Dr	E	4LD	1,404	1,701	1,764	**1,764**
Road B-1 (Griffin Road)						
World Dr to US 192	E	2L	459	738	792	**792**
Flagler Avenue (Divided)						
Western Way to Flamingo Crossings	E	2LD	482	775	832	**832**

Note: Capacities taken from the generalized tables in the FDOT 2009 Quality/Level of Service Handbook or FDOT ART-PLAN Software (*) and from FDOT LOS_ALL for FIHS and SIS facilities updated to the FDOT 2009 Quality/Level of Service Handbook

Figure 3-5 RCID Roadways – Number of Lanes



Operating Level of Service Analysis

The existing operating condition of the classified roadways within the RCID was evaluated by comparing the p.m. peak hour traffic counts for each roadway segment with the associated level of service capacities established for each roadway segment. Table 3-6 presents the level of service for classified roadways within the RCID based on the 2008 traffic counts. This table includes the adopted LOS standard, number of lanes, adopted LOS capacity, the p.m. peak-hour peak-direction traffic volume, and level of service for each roadway segment. The p.m. peak hour directional LOS (based on the traffic counts) for each roadway segment is displayed in Figure 3-6.

Based on the 2008 traffic counts all RCID maintained roadways are operating at or above their adopted level of service standard. However as shown in Table 3-7 the following State maintained roadways are operating below their adopted LOS standard:

- Interstate 4 from US 192 to Osceola Parkway
- Interstate 4 from Osceola Parkway to Epcot Center Drive
- US 192 from East RCID Boundary to I-4.

The 2008 counts do not take into consideration reserved trips reflected in the District's Concurrency Management System. Table 3-7 and Figure 3-8 account for these committed trips on the RCID CMS roadways. The reserved trips include projects completed after the 2008 traffic counts (Jostens Center at ESPN Wide World of Sports Complex, Animal Kingdom Lodge Annex, T-Rex Restaurant at Downtown Disney, and Treehouse Villas at Saratoga Springs); projects currently under construction [Best Friend's Pet Care and the North East Resort Parcel Development (located in Orange County, but accessed through the District)]; and projects with concurrency certificates, but included within the maximum development thresholds for 2015 and 2020 (Flamingo Crossings Phase 1 and Four Seasons Resort). After factoring the reserved trips all RCID maintained roadways continue to operate at or above their adopted LOS standard. One additional State maintained roadway operates below its adopted LOS standard with the addition of the CMS reserved trips

- US 192 from Road B-1 (Griffin Road) to West RCID Boundary.

A Memorandum of Understanding (as amended) with the Florida Department of Transportation is in place that allows the District's primary employer to purchase trips on Interstate -4 pursuant to a Joint Participation Agreement and Donation Agreement for the Construction of Interstate-4 Improvements as a means of satisfying concurrency for trips on I-4 as follows:

Tips Reserved in 1998	199,735	
Trips Purchased in 1998		199,735
Trips Utilized through 2006		190,068
Net Trips Available in 2006		9,667
Additional Trips Reserved in 2006	243,000	
Trips Purchased in 2007		66,735
Trips Utilized 2006 through 2008		7,121
Net Trips Available		**69,281**
Net Additional Trips Reserved	**176,265**	

Table 3-6: RCID Roadways – Existing Level of Service (2008 Traffic Counts)

Roadway / Segment	LOS Std.	# of Lanes	LOS Capacity	PM Peak Hour / Direction	
				Volume	LOS
Interstate 4					
S.W. RCID boundary to World Dr	D	6LD	5,580	4,655	C
World Dr to US 192	D	6LD	5,580	3,947	C
US 192 to Osceola Pkwy	D	6LD	5,580	5,920	E
Osceola Pkwy to Epcot Center Dr	D	6LD	5,580	5,920	E
Epcot Center Dr to CR 535	D	8LD	7,420	5,920	C
US 192					
East RCID boundary to I-4	D	6LD	2,680	2,760	E
I-4 to World Dr	D	6LD	5,580	2,967	B
World Dr to Road B-1 (Griffin Rd)	D	6LD	2,940	2,668	C
Road B-1 (Griffin Rd) to West RCID boundary	D	6LD	2,940	2,829	C
SR 429					
South of Western Way	D	4LD	3,720	528	B
North of Western Way	D	4LD	3,720	891	B
CR 535					
I-4 to Hotel Plaza Blvd	E	6LD	3,255	2,528	D
Hotel Plaza Blvd to Apopka-Vineland Rd	E	6LD	3,255	2,528	D
World Drive					
I-4 to Road B-1 (Griffin Rd)	E	4LD	4,020	743	B
Road B-1 (Griffin Rd) to US 192	E	4LD	4,020	656	B
US 192 to Osceola Pkwy	E	6LD	6,200	2,495	B
Osceola Pkwy to Buena Vista Dr	E	6LD	6,200	2,168	B
Buena Vista Dr to EPCOT Center Dr	E	6LD	6,200	1,422	B
Epcot Center Drive					
I-4 to Buena Vista Dr	E	6LD	6,200	3,011	B
Buena Vista Dr to World Dr	E	6LD	6,200	785	B
Osceola Parkway					
I-4 to Victory Way	E	6LD	6,200	1,987	B
Victory Way to World Dr	E	4LD	2,300	1,046	B
World Dr to Buena Vista Dr	E	4LD	4,020	1,818	B
Western Way					
Buena Vista Dr to Bear Island Rd	E	4LD	1,960	420	B
Bear Island Rd to SR 429	E	4LD	1,960	479	B
Flamingo Crossings Blvd to Flagler Ave	E	4LD	1,700	Open 2010	-
Flamingo Crossing Boulevard					
SR 545 to Flagler Ave	E	2L	1,440	Reopen 2009	-
Flagler Ave to Western Way	E	4LD	1,700	Reopen 2009	-
Buena Vista Drive					
CR 535 to Disney Vacation Club Way	E	4LD	1,960	312	B
Disney Vacation Club Way to Hotel Plaza Blvd	E	4LD	1,960	471	B
Hotel Plaza Blvd to Team Disney	E	6LD	2,570	1,187	D
Team Disney to Typhoon Lagoon	E	6LD	2,830	1,124	C
Typhoon Lagoon to Bonnet Creek Pkwy	E	6LD	2,830	1,386	C
Bonnet Creek Pkwy to Backstage Lane	E	6LD	3,230	1,920	B
Backstage Lane to Victory Way	E	6LD	3,230	1,920	B
Victory Way to Epcot Resorts Blvd East	E	6LD	3,230	1,630	B
Epcot Resorts Blvd East to Epcot Resorts Blvd West	E	6LD	3,230	1,432	B
Epcot Resorts Blvd West to World Dr	E	6LD	3,230	1,294	B
World Dr to Western Way	E	4LD	1,870	682	C
Western Way to Osceola Pkwy	E	4LD	1,870	637	C
Hotel Plaza Boulevard					
West of CR 535	E	4LD	2,151	1,672	D
East of Buena Vista Dr	E	4LD	2,151	1,514	C
Bonnet Creek Parkway					
Buena Vista Dr to Overpass Rd	E	4LD	1,683	620	C
Overpass Rd to Disney Vacation Club Way	E	4LD	1,683	690	C
Disney Vacation Club Way Dr to Vista Way	E	4LD	2,029	565	B
EPCOT Resorts Boulevard					
Buena Vista Dr to Water Bridge	E	4LD	1,216	244	C
Water Bridge to Dolphin Hotel	E	2L	792	244	B
Dolphin Hotel to Buena Vista Dr	E	4LD	1,274	207	B
Victory Way					
Osceola Pkwy to Buena Vista Dr	E	4LD	1,764	752	B
Road B-1 (Griffin Road)					
World Dr to US 192	E	2L	792	109	B
Flagler Avenue					
Western Way to Flamingo Crossings	E	2LD	832	Open 2010	-

Figure 3-6: RCID Roadways – Existing Level of Service (2008 Traffic Counts)

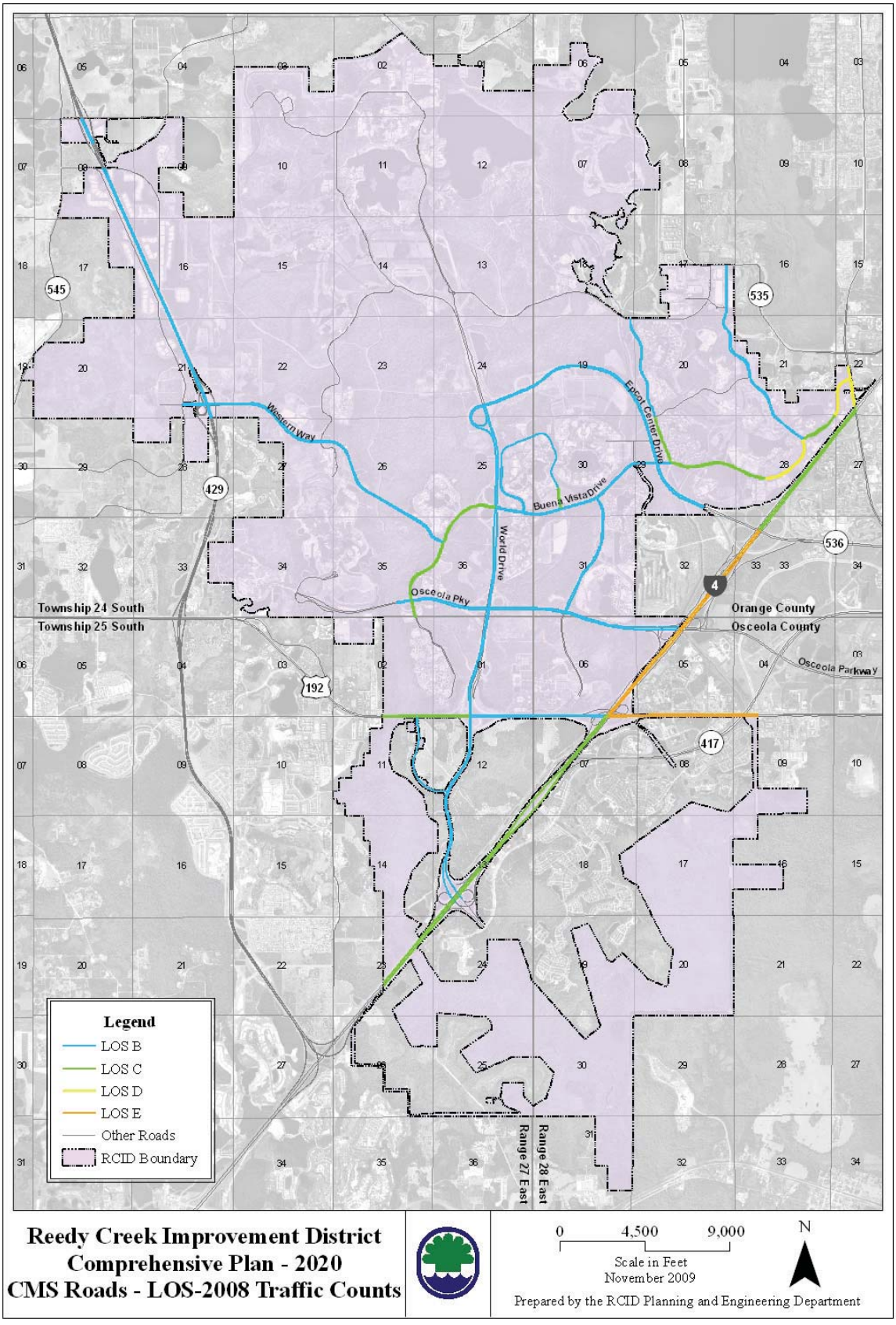
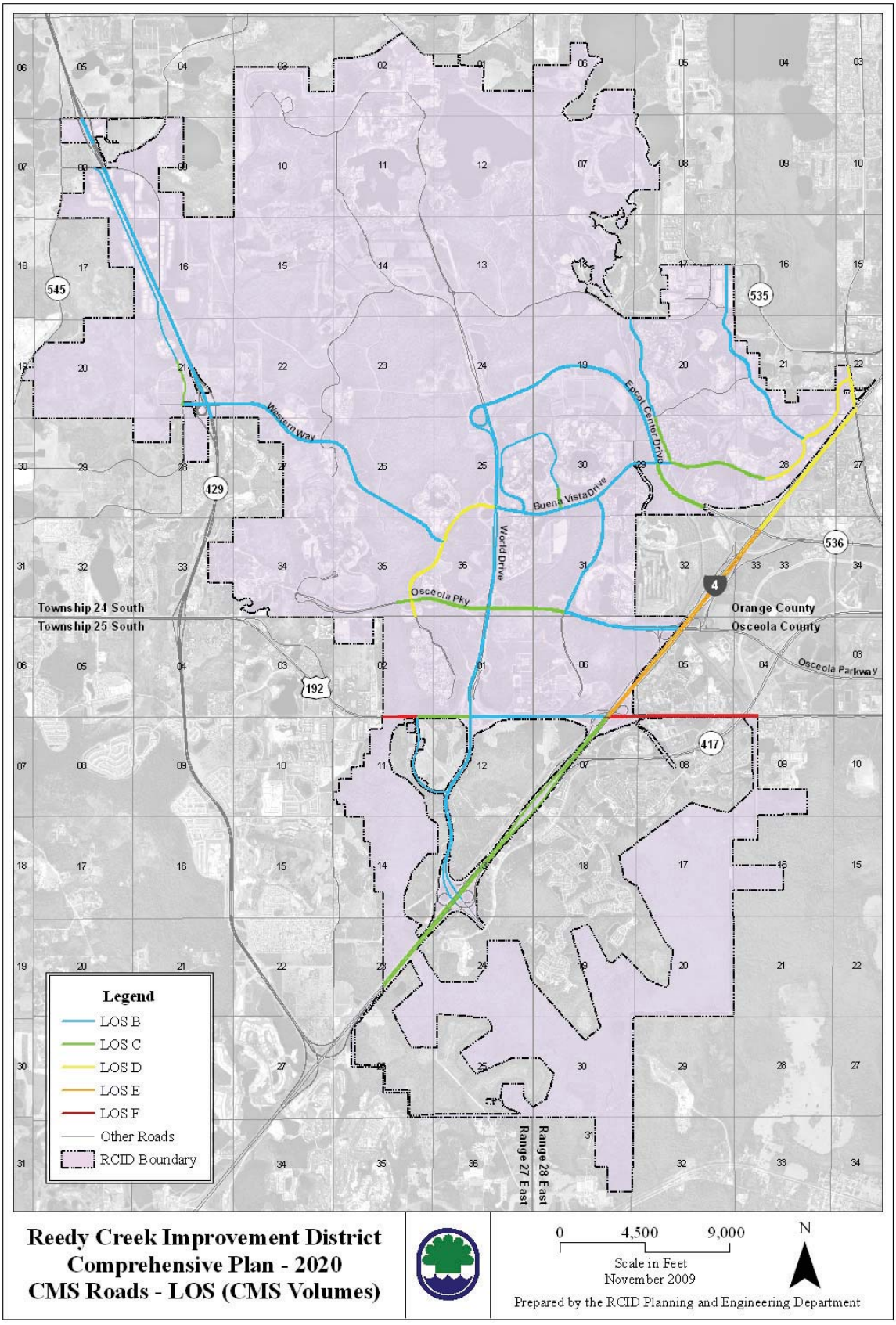


Table 3-7: RCID Roadways – Existing Level of Service (CMS Volumes)

Roadway / Segment	LOS Std.	# of Lanes	LOS Capacity	PM Peak Hour / Direction	
				Volume	LOS
Interstate 4					
S.W. RCID boundary to World Dr	D	6LD	5,580	4,827	C
World Dr to US 192	D	6LD	5,580	3,970	C
US 192 to Osceola Pkwy	D	6LD	5,580	6,191	E
Osceola Pkwy to Epcot Center Dr	D	6LD	5,580	6,139	E
Epcot Center Dr to CR 535	D	8LD	7,420	6,341	D
US 192					
East RCID boundary to I-4	D	6LD	2,680	2,858	F
I-4 to World Dr	D	6LD	5,580	3,087	B
World Dr to Road B-1 (Griffin Rd)	D	6LD	2,940	2,718	C
Road B-1 (Griffin Rd) to West RCID boundary	D	6LD	2,940	2,997	F
SR 429					
South of Western Way	D	4LD	3,720	843	B
North of Western Way	D	4LD	3,720	825	B
CR 535					
I-4 to Hotel Plaza Blvd	E	6LD	3,255	2,877	D
Hotel Plaza Blvd to Apopka-Vineland Rd	E	6LD	3,255	2,895	D
World Drive					
I-4 to Road B-1 (Griffin Rd)	E	4LD	4,020	978	B
Road B-1 (Griffin Rd) to US 192	E	4LD	4,020	888	B
US 192 to Osceola Pkwy	E	6LD	6,200	2,880	B
Osceola Pkwy to Buena Vista Dr	E	6LD	6,200	2,488	B
Buena Vista Dr to EPCOT Center Dr	E	6LD	6,200	1,676	B
Epcot Center Drive					
I-4 to Buena Vista Dr	E	6LD	6,200	3,620	C
Buena Vista Dr to World Dr	E	6LD	6,200	1,008	B
Osceola Parkway					
I-4 to Victory Way	E	6LD	6,200	2,844	B
Victory Way to World Dr	E	4LD	2 300	1,768	C
World Dr to Buena Vista Dr	E	4LD	4,020	2,408	C
Western Way					
Buena Vista Dr to Bear Island Rd	E	4LD	1,960	298	B
Bear Island Rd to SR 429	E	4LD	1,960	298	B
Flamingo Crossings Blvd to Flagler Ave	E	4LD	1,700	Open 2010	-
Flamingo Crossing Boulevard					
SR 545 to Flagler Ave	E	2L	1,440	298	B
Flagler Ave to Western Way	E	4LD	1,700	298	C
Buena Vista Drive					
CR 535 to Disney Vacation Club Way	E	4LD	1,960	373	B
Disney Vacation Club Way to Hotel Plaza Blvd	E	4LD	1,960	616	B
Hotel Plaza Blvd to Team Disney	E	6LD	2,570	1,526	D
Team Disney to Typhoon Lagoon	E	6LD	2,830	1,386	C
Typhoon Lagoon to Bonnet Creek Pkwy	E	6LD	2,830	1,593	C
Bonnet Creek Pkwy to Backstage Lane	E	6LD	3,230	2,460	B
Backstage Lane to Victory Way	E	6LD	3,230	2,385	B
Victory Way to Epcot Resorts Blvd East	E	6LD	3,230	2,129	B
Epcot Resorts Blvd East to Epcot Resorts Blvd West	E	6LD	3,230	1,800	B
Epcot Resorts Blvd West to World Dr	E	6LD	3,230	1,753	B
World Dr to Western Way	E	4LD	1,870	1,401	D
Western Way to Osceola Pkwy	E	4LD	1,870	1,356	D
Hotel Plaza Boulevard					
West of CR 535	E	4LD	2,151	1,851	D
East of Buena Vista Dr	E	4LD	2,151	1,689	D
Bonnet Creek Parkway					
Buena Vista Dr to Overpass Rd	E	4LD	1,683	597	C
Overpass Rd to Disney Vacation Club Way	E	4LD	1,683	847	C
Disney Vacation Club Way Dr to Vista Way	E	4LD	2,029	618	B
EPCOT Resorts Boulevard					
Buena Vista Dr to Water Bridge	E	4LD	1,216	258	C
Water Bridge to Dolphin Hotel	E	2L	792	258	B
Dolphin Hotel to Buena Vista Dr	E	4LD	1,274	214	B
Victory Way					
Osceola Pkwy to Buena Vista Dr	E	4LD	1,764	758	B
Road B-1 (Griffin Road)					
World Dr to US 192	E	2L	792	109	B
Flagler Avenue					
Western Way to Flamingo Crossings	E	2LD	832	Open 2010	-

Figure 3-7: RCID Roadways – P.M. Peak Hour Directional Level of Service (CMS Volumes)



PROGRAMMED AND PLANNED IMPROVEMENTS

Programmed improvements are defined as projects that have funding committed towards construction within the next five years. Planned improvements have no financial commitment towards construction within the next five years. Instead, planned improvements include those projects with funding toward some aspect of the project other than construction, as well as those projects included in a government agency's long-range transportation plan.

Recently completed improvements to public roadways within the District include:

- The completion of SR 429 in 2006.
- The construction of Western Way which connects SR 429 to Buena Vista Drive and establishes a western "gateway" into the District. This project was completed concurrent with the opening of SR 429.
- The substantial completion of the roadway infrastructure to serve Phase I of the Flamingo Crossings planned development. This project included:
  - the extension of Western Way to the west of SR 429,
  - the construction of Flagler Avenue, and
  - the transfer of the Hartzog Road right-of-way from Orange County to the District and the construction of Hartzog Road north from Western Way to match-up with the paved portion of Hartzog Road southeast of CR 545 (Hartzog Road has been renamed Flamingo Crossing Boulevard).

Table 3-8 summarizes the programmed improvements within the District and Table 3-9 shows advance right-of-way acquisition projects included in the MetroPlan Orlando Transportation Improvement Program and FDOT Adopted Five-Year Work Program that are in part located within the District boundaries. Programmed improvements include those roadway improvement projects within the District that have dedicated funding and will be completed within the next five-year period (2011-2015). Planned improvements include those roadway improvement projects that do not have dedicated funding for construction but are scheduled to be completed prior to 2008.

Table 3-8: Programmed Improvements 2011-2015

Roadway	Limits	Improvement	Construction Begins	Source of Funding
Flamingo Crossings Blvd	From Western Way to RCID Boundary	4 Lane Urban Road	2011	RCID (Bond Funds on Hand) and Orange Lake Country Club
I-4	US 192 to Osceola Pkwy	Braided Ramp	2011	State and Local Funds

Table 3-9: Right-of-Way Acquisition 2011-2015

I-4	Polk/Osceola County Line to Orange/Osceola County Line	Right of Way Acquisition	Bonds and State Funds
I-4	Orange County	Right-of-Way Acquisition	Federal, State and Local Funds

ACCIDENT ANALYSIS

Accident information is taken from the Orlando Metropolitan Area 2007 Crash Surveillance Report compiled and published by MetroPlan Orlando. The report contains summary data on intersections within the Orlando Urban Area where 10 or more traffic accidents occurred during calendar 2007 (the most recent data available). Three intersections within the RICD were included in the report:

Hotel Plaza Blvd & CR 535	31 Accidents with 7 involving bicycles or pedestrians
Buena Vista Drive & Hotel Plaza Blvd	14 Accidents with 4 involving bicycles or pedestrians
Osceola Parkway & Victory Way	10 Accidents with 2 involving bicycles or pedestrians

Information obtained from Reedy Creek Emergency Services Call Log Report for the last 12 months shows 230 traffic accidents occurring on RCID CMS roadways. The greatest number of accidents (66 or about 29 percent of the total) occurred on I-4 with 35 or about 15 percent of the total on the I-4 segment from Osceola Parkway to Epcot Center Drive. The greatest number of accidents on RCID maintained roads occurred on Epcot Center Drive from I-4 to Buena Vista Drive with 15 or 6.5 percent of the total. The intersection of Buena Vista Drive and Chelonia Parkway/Backstage Lane saw the greatest number of accidents at 10 or 4.4 percent of the total. During the last 12 months Reedy Creek Emergency Services responded to fewer accidents at the three intersections reported above:

Hotel Plaza Blvd & CR 535	4 Accidents all involving vehicles
Buena Vista Drive & Hotel Plaza Blvd	8 Accidents all involving vehicles
Osceola Parkway & Victory Way	6 Accidents all involving vehicles

The District has been very proactive in providing a safe transportation network. Given the tourist-oriented nature of the District, many of the drivers on RCID roadways are unfamiliar with the area. A comprehensive signage plan that provides adequate and clear guidance to the area's resorts and attractions is an important tool for reducing vehicular conflicts.

PEDESTRIAN MOBILITY

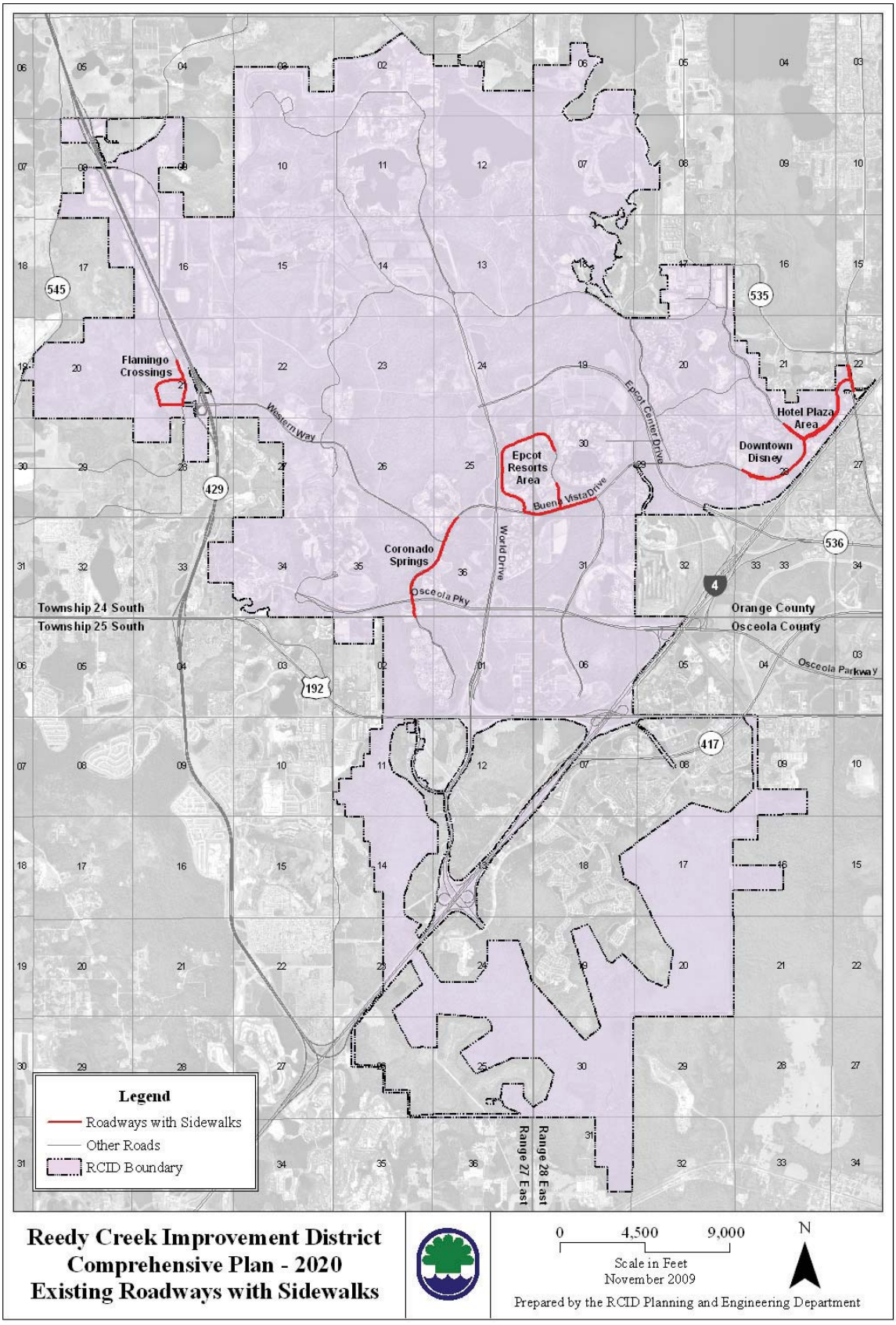
Public walkways (sidewalks) are located along a number of public roadways within the District. These roadways are all lower order facilities located within the major pedestrian activity centers in the District. These major pedestrian activity centers include the Hotel Plaza Boulevard Corridor, Downtown Disney, the Epcot Resort Boulevard area, and the Flamingo Crossings planned development. In addition, extensive privately owned pedestrian facilities exist throughout the District. An inventory of the ***public*** walkways within the District is provided in Table 3-10.

Table 3-10: Inventory of Existing Public Sidewalks

Adjacent Roadway	Limits	Side of the Road
CR 535	Hotel Plaza Blvd to Apopka-Vineland	West
	I-4 to Apopka-Vineland	East
Hotel Plaza Boulevard	CR 535 to Buena Vista Drive	Both
Buena Vista Drive	Buena Vista Palace to Hilton to SunTrust to Casting Center to Hess to Team Disney	East and South (portion of North across from Team Disney)
	Saratoga Springs Resort to The Marketplace	West
	Victory Way to Epcot Resorts Boulevard West	North
	Coronado Springs to Blizzard Beach to MacDonald's to All-Star	East (portion of West at Coronado Springs
Epcot Resorts Boulevard	Boardwalk Resort to Buena Vista Drive	West
	Yacht and Beach Club Resort to Swan and Dolphin Resorts	South and East (portion of West at Yacht and Beach)
Flamingo Crossings Planned Development	This is planned as a pedestrian oriented tourist commercial district with sidewalks along all roadways.	Both

The locations of public sidewalks within the District are shown in Figure 3-8.

Figure 3-8: Existing Roadways with Sidewalks



TRANSIT SERVICE

The RCID is serviced by both public and private transit providers. The region's public transit provider, LYNX, operates four routes that service the RCID. The private transit system within the District is a comprehensive intermodal transit network that provides links to every resort and attraction within the RCID.

Public Transit

Currently, the Central Florida Regional Transportation Authority (LYNX) provides public transit service to the District. At the inception of the 2008 Comprehensive Plan, LYNX operated four routes with destinations within the District; LYNX currently operates ten routes as shown in Table 3-11.

LYNX service to and from the District for employees, and for an increasing number of guests, has improved significantly during the last five years. Service is provided to all of the resorts, to the major theme parks, and to the Downtown Disney commercial district where private buses are readily available to augment any shortfalls in the public service. Shelters have been add for most of the employee sites and will be added for all public roadways during 2010/2011.

Table 3-11: Existing LYNX Service

Link/Route	Hours of Operation	Headway
Link 50 – with service from LYNX Central Station (Downtown Orlando) to the Transportation and Ticket Center (TTC) (Magic Kingdom) including stops along Hotel Plaza Blvd, the intersection of Hotel Plaza Blvd and Buena Vista Dr, and at the Downtown Disney Transfer Station	Monday thru Sunday & Holidays 5:00 AM to 11:50 PM	30 Minutes
Link 56 – with service from Osceola Square Mall to the Magic Kingdom including stops at the intersection of US 192 & SR 353, Old Town, the Transportation and Ticket Center (TTC), and Disney University	Monday thru Sunday & Holidays 5:45 AM to 11:30 PM	30 Minutes
Link 111 – with service from Orlando International Airport to Disney University including stops along Hotel Plaza Blvd, the intersection of Hotel Plaza Blvd and Buena Vista Dr, at the Downtown Disney Transfer Station, and the TTC	Monday thru Sunday & Holidays 5:00 AM to11:50 PM	30 Minutes
Link 300 – with service from Lynx Central Station to the Downtown Disney Transfer Station including stops along Hotel Plaza Blvd and the intersection of Hotel Plaza Blvd, and Buena Vista Dr	Monday thru Sunday & Holidays 6:30 AM to 7:20 AM (To) 4:55 PM to 6:00 PM (From)	24 Hours
Link 301 – with service from Park Promenade to Disney's Animal Kingdom including stops along Hotel Plaza Blvd, the intersection of Hotel Plaza Blvd and Buena Vista Dr, at the Downtown Disney Transfer Station, Epcot Cast Entrance, Caribbean Beach and Pop Century, and Animal Kingdom Lodge	Monday thru Sunday & Holidays 6:05 AM to 7:36 AM (To) 2:20 PM to 3:51 PM (To) 4:43 PM to 6:20 PM (From)	8 Hours
Link 302 – with service from Rosemont Super Stop to Disney's Polynesian Resort including stops at the Downtown Disney Transfer Station, Fort Wilderness, Wilderness Lodge, Contemporary Resort, and Magic Kingdom Cast Bus Station	Monday thru Sunday & Holidays 5:55 AM to 7:47 AM (To) 2:10 PM to 4:02 PM (To) 4:30 PM to 6:26 PM (From)	8 Hours
Link 303 – with service from Colonial Dr and John Young Parkway to Disney's All-Star Resorts including stops at the Downtown Disney Transfer Station, the Epcot Resorts Blvd Resorts, Disney's Hollywood Studios, and Coronado Springs Resort	Monday thru Sunday & Holidays 6:15 AM to 7:20 AM (To) 2:30 PM to 3:45 PM (To) 4:40 PM to 6:00 PM (From)	8 Hours
Link 304 – with service from Orange Blossom Trail and Anderson St to the Downtown Disney Transfer Station including stops along Hotel Plaza Blvd and the intersection of Hotel Plaza Blvd, and Buena Vista Dr	Monday thru Sunday & Holidays 6:11 AM to 7:35 AM (To) 2:20 PM to 3:50 PM (To) 4:40 PM to 6:25 PM (From)	8 Hours
Link 305 (AM only) – with service from Kirkman Rd and Raleigh St to Disney's All-Star Resorts including stops at the Downtown Disney Transfer Station and Coronado Springs Resort	Monday thru Sunday & Holidays 6:09 AM to 7:19 AM (To)	24 Hours
Link 306 – with service from Poinciana to the Downtown Disney Transfer Station.	Monday thru Sunday & Holidays 6:15 AM to 7:00 AM (To) 5:20 PM to 6:05 PM (From)	24 Hours

Private Transit

Private landowners within the District have developed a comprehensive multi-modal transit network that links every resort and attraction in the RCID. This network consists of three modes of transportation: bus, monorail, and watercraft (including ferries and water taxis). In addition, private carriers provide bus service to major destinations outside the District, including the Orlando International Airport and Port Canaveral.

Express and local monorail service is provided between the Ticketing and Transportation Center (TTC) and the Magic Kingdom. The express monorail beam provides direct service between the TTC and the Magic Kingdom, while the local monorail beam provides service to the Contemporary, Polynesian, and Grand Floridian Resorts. In addition, express monorail service is provided between the TTC and Epcot. Average headways for the local beam are 5 minutes, while average headways for the express beam are 3 minutes. Eleven units currently provide monorail service, with each unit providing a seating capacity for 312 passengers. There are about 15 miles of monorail guideway.

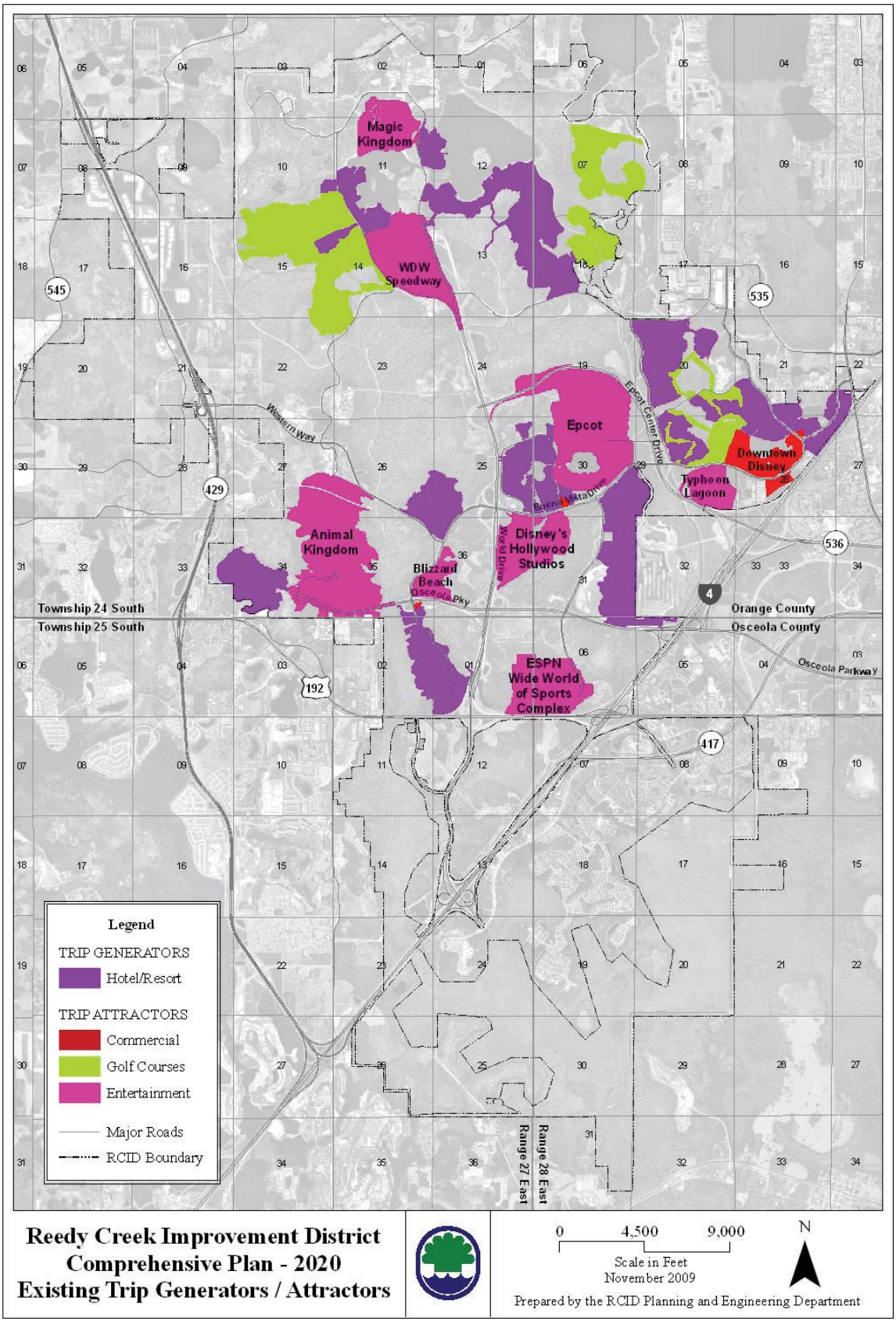
Extensive bus service is provided between resorts, attractions, and the TTC. Headways generally vary from 5 to 35 minutes. Presently, there are 291 buses in the Walt Disney World Transportation Fleet, with seating capacities that range from 42 to 62 persons.

Thirty-five water taxis provide service to three general areas within the Districts. Watercraft service is provided between the Magic Kingdom theme park and all nearby resorts, including the Fort Wilderness Campground area. The Epcot resorts are linked by watercraft service to the Epcot and Disney's Hollywood Studios. Watercraft service is also provided between the three venues at Downtown Disney and to the Saratoga Springs, Treehouse Villas, and Port Orleans Resorts. Ferryboats, with a 600-person capacity, supplement monorail service by providing transportation to guests from the TTC to the Magic Kingdom.

As a result of the extensive transit system within the RCID, a substantial portion of the District hotel guests visiting the attractions use the private transit service. In addition to the on-site transit network, a large number of private charter companies transport District hotel guests to and from the Orlando International Airport. These transit services immeasurably improve traffic circulation by significantly reducing the vehicle trip demand for roads in the District. It is estimated that the private transportation network provides 90 million passenger trips per year.

Figure 3-9 graphically depicts the major trip generators and attractors for both automobile and transit trips within the District. For purposes of this analysis, hotel/resort uses are defined as generators and entertainment and commercial uses are defined as attractors, even though each of these uses may have both attractor and generator characteristics. Trip generators and attractors within the District function as attractors for roadways located outside the RCID boundary.

Figure 3-9: Trip Generators and Attractors



Transportation Disadvantaged

Transportation disadvantaged persons within the District are adequately provided for. Transportation disadvantaged persons are defined as the young (under 16), the elderly, and those with physical limitations. The District's transportation infrastructure incorporates a large number of Americans with Disabilities Act (ADA) compliant vehicles and facilities into the overall transportation system to address these needs.

AVAILABILITY OF TRANSPORTATION FACILITIES TO SERVE EXISTING LAND USES

The RCID has excellent access from the regional transportation network. The District is served by the following major facilities: Interstate 4, US 192, SR 536/International Drive, Osceola Parkway, SR/CR 535, SR 429, and the Central Florida GreeneWay (SR 417). Approximately 39 centerline miles of public roads provide access and mobility within the District. The area is also served by an extensive private roadway system that serves the major developments in the District. Land uses in the RCID are also well served by public transit and an extensive private multi-modal transit network. Public and private bus routes serve all on-site hotels and resorts, major attractions, and commercial districts.

GROWTH TRENDS AND TRAVEL PATTERNS

The District's growth during the last ten years has moderated considerably since the robust growth during the 1980s and 1990s. World events and economic conditions have impacted national and international travel and reduced growth and development opportunities within the District.

Residential Development

The RCID is a non-residential, tourist-oriented community with a permanent population of 43 residents. This population is expected to remain generally constant through the year 2020.

General Land Uses

Based on existing densities the projected total acreage to be developed during the next ten years is 2,688 acres. This figure is very close to the total Mixed Use acreage shown on the FLUM—2,729 acres. As such, new development is expected to occur at higher densities and on smaller parcels of land. As it has in the past, the RCID will continue to encourage mixed use development, with multiple uses integrated on a single site or in a single building. This pattern of growth suggests that for the most part, travel demand patterns within the District will remain as they are today.

The same basic mix of uses as currently exists is projected to continue within the District. The mixed use character of development provides extensive opportunities for guests to remain on-site and take advantage of the extensive private transportation options for traveling around the District and to and from the airport.

The completion of SR 429 and Western Way provide a western access to the District that opens up a major new area for development. Although the public facilities and roadway infrastructure are in place, the recession has significantly delayed development of this pedestrian friendly, tourist oriented commercial/resort development. This project is very much geared toward private automobile travel although private transit service will be emphasized for trips around the District.

RULE 9J-5.019 COMPLIANCE

Subsection 9J-5.019 (2)

Subsection 9J-5.019 (2) of the Florida Administrative Code requires that maps be provided that present the general location of important features of the RCID transportation system. Due to the unique characteristics of the District, the following requirements of Rule 9J-5.019 (2) are either different from the standard or are not applicable.

Significant Parking Facilities

There are no significant public parking facilities in the District. There are, however, a number of significant private parking facilities that serve the resorts and attractions within the District. Each of the four gated theme parks has its own facility to accommodate guest parking. Private parking facilities are also provided at all other attractions, such as the two water parks, and at all of the resorts. Large private parking facilities are also provided for Downtown Disney and the Boardwalk area.

Significant Bicycle Ways

There are no designated public bicycle ways in the District. As shown in Figure 3-8 there are a number of public pedestrian ways located throughout the major pedestrian activity centers. These facilities could be utilized as shared bicycle ways, but this activity is not encouraged due to the high volume of pedestrians on these walkways and the likelihood of pedestrian/bicycle conflicts. There are a number of private recreational bikeway facilities that are provided throughout the District. These bikeways are most often associated with individual resort areas, such as Wilderness Lodge and the Fort Wilderness Campgrounds and the Epcot Resort Boulevard resorts. Bikeways and shared bicycles are provided at several of the theme parks for employee use.

Port Facilities

There are no public deepwater port facilities in the District. However, landowners maintain and operate watercraft facilities at private attractions, hotels, and resorts.

Intermodal Facilities

Other than ten public bus routes no other mode of public transit serves the area. There are no public intermodal facilities located within the District. There are, however, extensive private intermodal facilities. The District's premiere intermodal facility is the Transportation and Ticket Center (TTC). This facility services buses (on-site and private charters), express and local monorail beams, ferry boats and serves as the drop-off point for the Magic Kingdom parking lot shuttles. The intermodal terminal at EPCOT Center services bus and monorail transportation. The intermodal terminal at Disney's Hollywood Studios services bus and watercraft transportation.

Airport Facilities

There are no airport facilities within the District.

Freight and Passenger Rail Lines and Terminals

There are currently no public use rail lines or terminals in the District.

Trip Generators/Attractors

The uniqueness of the District's land uses calls for a unique consideration of trip generators and attractors. Major theme parks and attractions, as well as commercial areas, are primarily trip attractors, while hotels and resorts are primarily trip generators. Figure 3-9 presents the location of the major generators and attractors of trips in the RCID. Since these are the primary land uses in the District, they have been considered throughout this Element.

Evacuation Routes of the Coastal Population

There is no coastal population in the District; however Interstate 4 is an evacuation route and portions of this SIS facility are within the District.

SUBSECTION 9J-5.019 (3)

Subsection 9J-5.019 (3) of the Florida Administrative Code requires that an analysis which addresses all modes of transportation be provided in the Transportation Element. The following analysis requirements have been addressed by previous sections of the Element:

- Peak Hour / Peak Direction LOS Analysis
- Existing Public and Private Transit Facilities
- Trip Generators and Attractors Within the District
- Analysis of the Availability of Transportation Facilities and Services in the Area
- Analysis of Growth Trends and Travel Patterns

Because of the unique character of RCID, the remaining requirements of Rule 9J-5.019 (3) are not applicable. These requirements are listed below:

Analysis of the Ability of the Existing Coastal Population to Evacuate Based on the Existing Transportation System

No analysis was performed on coastal population evacuation, as there is no coastal population in the District.

Analysis of the Existing Intermodal Deficiencies and Needs

There are no public intermodal facilities in the District. Although extensive private intermodal facilities exist within the District, a detailed analysis of this system has not been conducted.

PROJECTED CONDITIONS ANALYSIS

The design of a comprehensive transportation system is ultimately based on the traffic anticipated to be generated by existing and new land uses, as well as the distribution of traffic in a specified geographic area. The District's roadway network is comprised of all District maintained roadways, State and county maintained roadways wholly within District boundaries, and State or County roadways for which the District has an interlocal agreement requiring CMS evaluation. State maintained roadways located within District boundaries are Interstate 4 and US 192. CR 535 is the only county maintained roadway located within District boundaries.

FUTURE TRAVEL DEMAND

Based on the development maximums contained in the Future Land Use Element Table 2-1, the projected maximum daily trip generation for the District is as follows:

Year	Vehicles Per Day	Incremental
Base	238,015	
2015	343,774	105,759
2020	436,295	92,521

As with the previous Comprehensive Plan update, the base is equal to the sum of the most recent ADT volumes at each of the entrance points into the District. The base in 1998 was 189,767 vehicles per day and was projected to increase to 354,302 vehicles per average day in 2008. The actual base of 238,015 vehicles per day in 2008 is considerably less. Development during the last ten year planning period was less than allowed for in the Maximum Development Table 2-1 for 1998 through 2008. This is very likely to also be the case for the 2020 planning period. Two periods of adverse economic conditions have occurred within the last nine years which have slowed and continue to slow growth and development within the District and Central Florida.

Figure 3-10 shows the projected 2015/2020 Trip Generators and Attractors. The most significant difference between this exhibit and the one from the previous Comprehensive Plan update is the proposed development at the Western Way and SR 429 interchange, i.e., the Flamingo Crossings tourist commercial planned development. Most of the land associated with the Flamingo Crossings development was annexed into the District in 2005 in anticipation of the completion of SR 429 and Western Way. Most of the other areas anticipated for development during the 2015/2020 planning periods are similar to those shown as future generators and attractors in the previous Comprehensive Plan update. The mix of development also remains relatively unchanged.

Traffic studies for four projects included in the 105,759 incremental trips for 2015 have been submitted to the District and include:

- Flamingo Crossings Phase 1 (located at the Western Way and SR 429 interchange)
- Four Seasons Resort (located at the Osprey Ridge Golf Course)
- Bonnet Creek Resort (located within Orange County, but accessed through the District)
- Disney's Art of Animation (originally planned as Phase 2 of the Pop Century Resort)

Two additional identified projects with trips included in the 2015 incremental trips are:

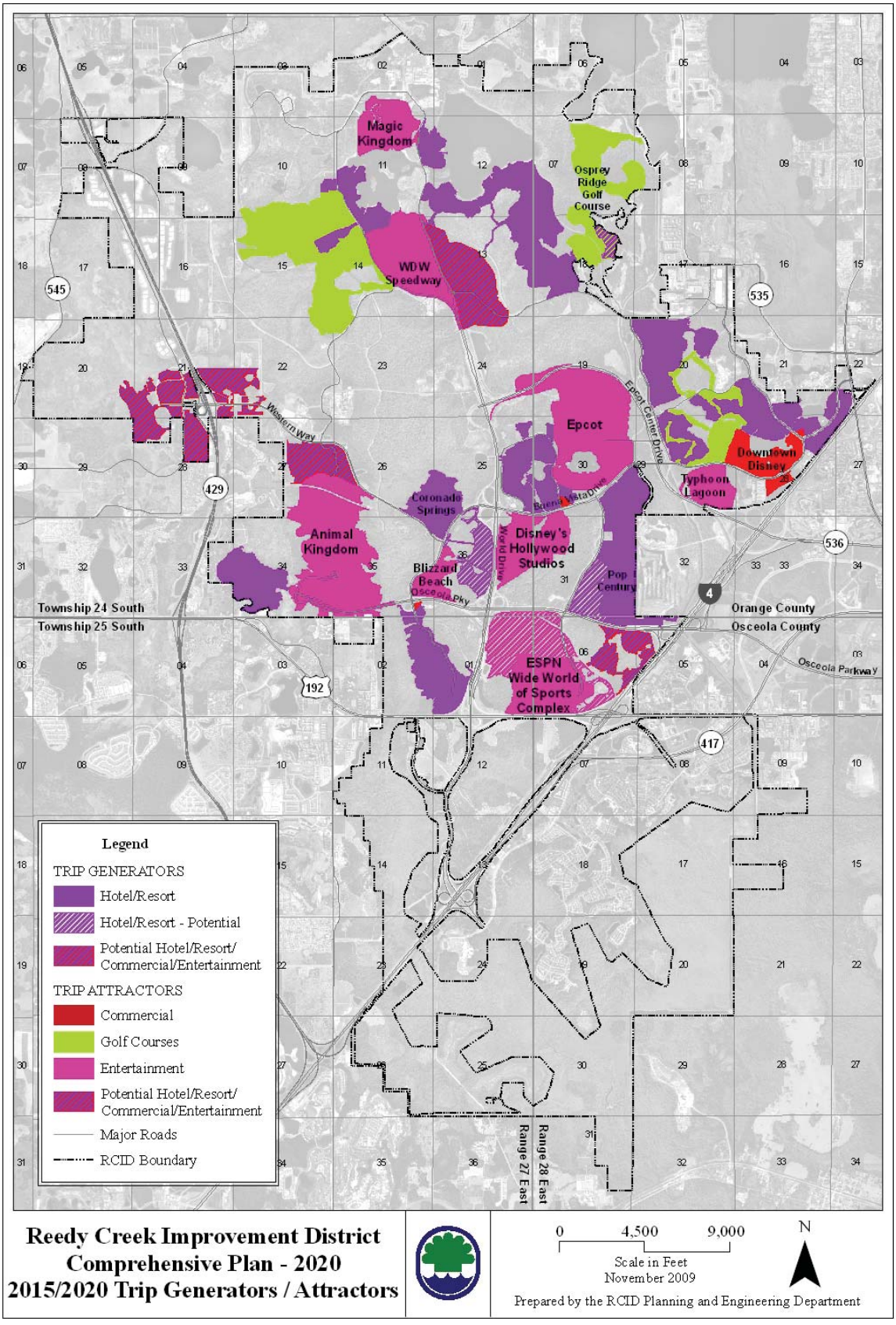
- Bowling Facility at ESPN Wide World of Sports
- A portion of Phase 2 of Flamingo Crossings

The traditional mix of development within the District was used to calculate the remaining incremental trips for 2015.

The 92,521 incremental trips for 2020 include trips from one project for which a traffic study has been submitted—Bonnet Creek Resort (located within Orange County, but accessed through the District)—and one identified project—all remaining phases of the Flamingo Crossings development. Again, the traditional mix of development within the District was used to calculate the remaining incremental trips for 2020.

Trip are calculated and assigned to the District's CMS roadways based on the Walt Disney World Resort Subarea/Concurrency Transportation Model. The trip generators and land uses within the District differ from those used by most other travel demand models, but the number of trips coming and going to and from the District should be consistent with models used by adjacent jurisdictions.

Figure 3-10: 2015/2020 Trip Generators and Attractors



2015 ROAD NETWORK

Programmed Improvements

Only one roadway improvement is programmed for completion during 2011 through 2015:

Flamingo Crossings Boulevard (formerly Hartzog Road) south of Western Way is to be constructed as a four lane urban road to serve Phase II of the Flamingo Crossings pedestrian friendly tourist commercial planned development located west of SR 429. The road improvements will also provide paved access from Western Way and SR 429to for the Orange Lake Country Club planned development. Orange Lake is providing about 45 percent of the project funding. RCID has bond funds on hand to cover its portion of the construction costs.

Roadway Inventory

The extension of Flamingo Crossings Blvd is the only addition to the RCID CMS Roadway network. Table 3-12 (2015 Roadway Inventory), Figure 3-11 (RCID Roadways – 2015 Functional Classification), Figure 3-12 (RCID Roadways – 2015 Administrative Classification), and Table 3-13 (2015 Peak Hour / Peak Directional Level of Service Capacities) update the District's future conditions for 2015. The only other roadway improvement scheduled for the 2015 planning period within or adjacent to the District is the braided ramp on I-4 from US 192 to Osceola Parkway contained in the FDOT Adopted Five-Year Work Program and the MetroPlan Orlando TIP. This project is scheduled for construction in 2012. Although funds are also available in the FDOT Adopted Five-Year Work Program and MetroPlan Orlando TIP for right-of-way acquisition for I-4 in Orange and Osceola Counties, the capacity of these roadways will not change during the 2015 planning period.

Table 3-12: 2015 Roadway Inventory

Roadway / Segment	Length (miles)	Number of Lanes	Maintenance Responsibility	Functional Classification
Interstate 4			State	PA (Ltd. Access)
S.W. RCID boundary to World Dr	1.19	6LD	State	PA (Ltd. Access)
World Dr to US 192	2.88	6LD	State	PA (Ltd. Access)
US 192 to Osceola Pkwy	2.29	6LD	State	PA (Ltd. Access)
Osceola Pkwy to Epcot Center Dr	1.25	6LD	State	PA (Ltd. Access)
Epcot Center Dr to CR 535	1.56	8LD	State	PA (Ltd. Access)
US 192				
East RCID boundary to I-4	1.53	6LD	State	Principal Arterial
I-4 to World Dr	1.36	6LD	State	PA (Ltd. Access)
World Dr to Road B-1 (Griffin Rd)	0.54	6LD	State	Principal Arterial
Road B-1 (Griffin Rd) to West RCID boundary	0.34	6LD	State	Principal Arterial
SR 429				
South of Western Way	0.38	4LD	State	PA (Ltd. Access)
North of Western Way	2.87	4LD	State	PA (Ltd. Access)
CR 535				
I-4 to Hotel Plaza Blvd	0.26	6LD	Orange County	Principal Arterial
Hotel Plaza Blvd to Apopka-Vineland Rd	0.14	6LD	Orange County	Principal Arterial
World Drive				
I-4 to Road B-1 (Griffin Rd)	1.15	4LD	RCID	PA (Ltd. Access)
Road B-1 (Griffin Rd) to US 192	0.83	4LD	RCID	PA (Ltd. Access)
US 192 to Osceola Pkwy	2.29	6LD	RCID	PA (Ltd. Access)
Osceola Pkwy to Buena Vista Dr	2.28	6LD	RCID	PA (Ltd. Access)
Buena Vista Dr to EPCOT Center Dr	1.05	6LD	RCID	PA (Ltd. Access)
Epcot Center Drive				
I-4 to Buena Vista Dr	0.68	6LD	RCID	PA (Ltd. Access))
Buena Vista Dr to World Dr	2.93	6LD	RCID	PA (Ltd. Access)
Osceola Parkway				
I-4 to Victory Way	1.16	6LD	RCID	PA (Ltd. Access)
Victory Way to World Dr	0.74	4LD	RCID	Principal Arterial
World Dr to Buena Vista Dr	0.96	4LD	RCID	PA (Ltd. Access)
Western Way				
Buena Vista Dr to Bear Island Rd	1.69	4LD	RCID	Principal Arterial
Bear Island Rd to SR 429	1.11	4LD	RCID	Principal Arterial
Flamingo Crossings Blvd to Flagler Ave	0.26	4LD	RCID	Minor Arterial
Flamingo Crossing Boulevard				
SR 545 to Flagler Ave	2.13	2L	RCID	Minor Arterial
Flagler Ave to Western Way	0.46	4LD	RCID	Minor Arterial
Western Way to RCID Boundary		4LD	RCID	Minor Arterial
Buena Vista Drive				
CR 535 to Disney Vacation Club Way	1.23	4LD	RCID	Minor Arterial
Disney Vacation Club Way to Hotel Plaza Blvd	0.85	4LD	RCID	Minor Arterial
Hotel Plaza Blvd to Team Disney	0.64	6LD	RCID	Minor Arterial
Team Disney to Typhoon Lagoon	0.44	6LD	RCID	Minor Arterial
Typhoon Lagoon to Bonnet Creek Pkwy	0.56	6LD	RCID	Minor Arterial
Bonnet Creek Pkwy to Backstage Lane	0.36	6LD	RCID	Minor Arterial
Backstage Lane to Victory Way	0.53	6LD	RCID	Minor Arterial
Victory Way to Epcot Resorts Blvd East	0.37	6LD		
Epcot Resorts Blvd East to Epcot Resorts Blvd West	0.40	6LD	RCID	Minor Arterial
Epcot Resorts Blvd West to World Dr	0.26	6LD	RCID	Minor Arterial
World Dr to Western Way	0.73	4LD	RCID	Minor Arterial
Western Way to Osceola Pkwy	0.90	4LD	RCID	Minor Arterial
Hotel Plaza Boulevard				
West of CR 535	0.44	4LD	RCID	Minor Arterial
East of Buena Vista Dr	0.41	4LD	RCID	Minor Arterial
Bonnet Creek Parkway				
Buena Vista Dr to Overpass Rd	0.24	4LD	RCID	Collector
Overpass Rd to Disney Vacation Club Way	0.25	4LD	RCID	Collector
Disney Vacation Club Way to Vista Way	1.05	4LD		
EPCOT Resorts Boulevard				
Buena Vista Dr to Water Bridge	0.21	4LD	RCID	Collector
Water Bridge to Dolphin Hotel	1.21	2L	RCID	Collector
Dolphin Hotel to Buena Vista Dr	0.60	4LD	RCID	Collector
Victory Way				
Osceola Pkwy to Buena Vista Dr	0.74	4LD	RCID	Collector
Road B-1 (Griffin Road)				
World Dr to US 192	5.75	2L	RCID	Collector
Flagler Avenue				
Western Way to Flamingo Crossings	0.49	2LD	RCID	Collector

Note: New Roadway Segment

Figure 3-11: RCID Roadways – 2015 Functional Classification

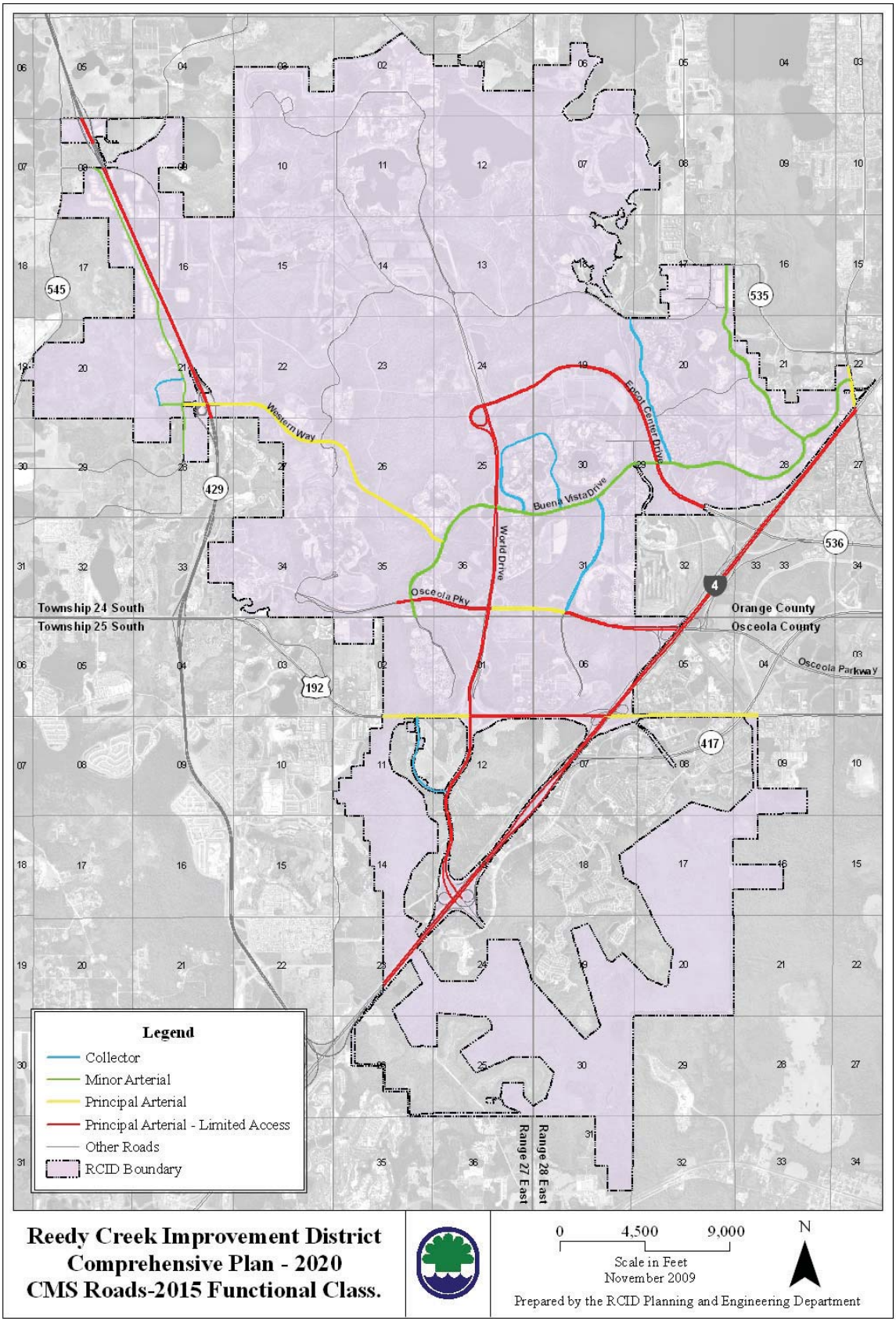


Figure 3-12: RCID Roadways – 2015 Administrative Classification

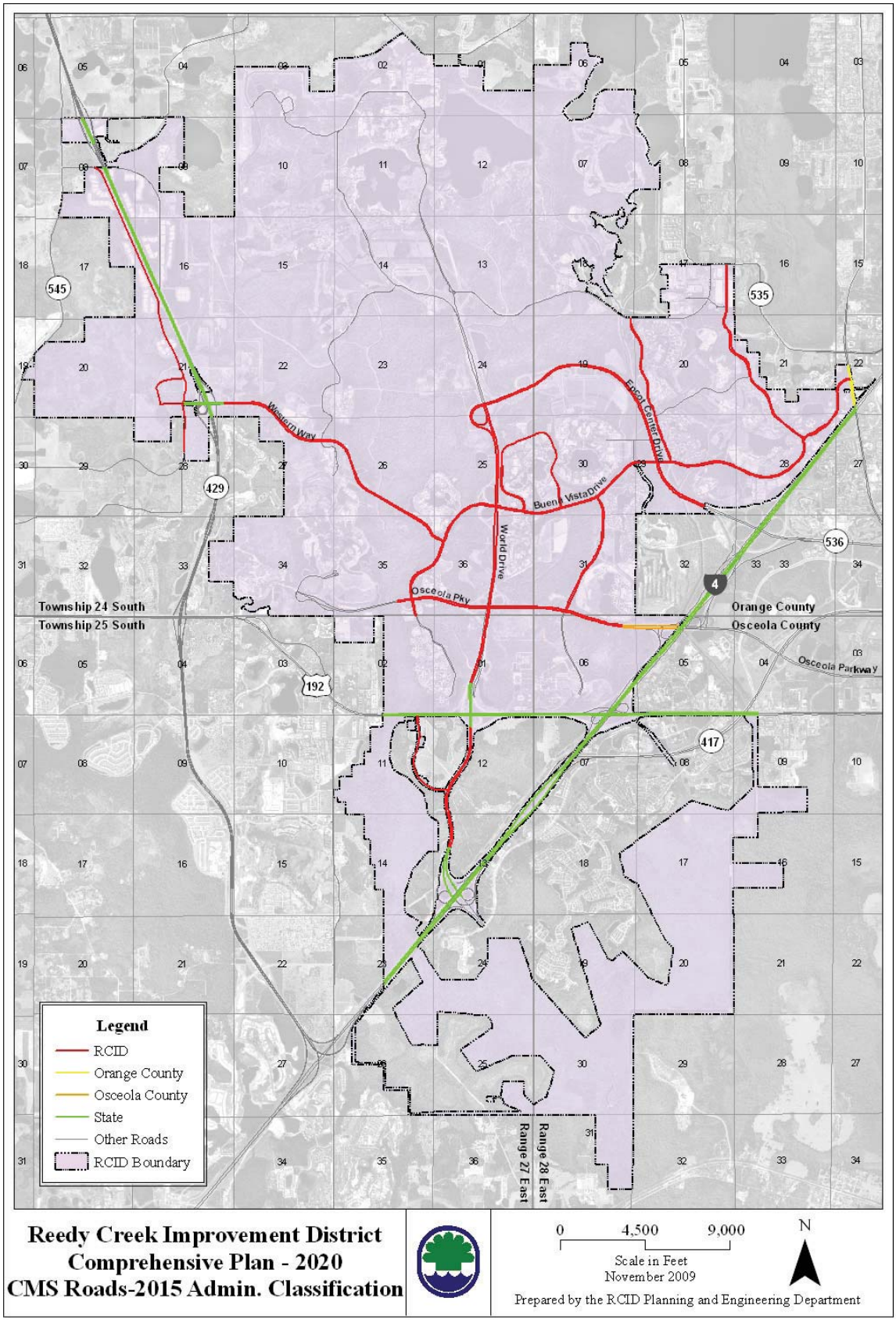


Table 3-13: 2015 Peak Hour / Peak Directional Level of Service Capacities

Roadway / Segment	LOS Std.	# of Lanes	Level of Service Capacities			
			B	C	D	E
Interstate 4						
S.W. RCID boundary to World Dr	D	6LD	3,300	4,580	**5,580**	6,200
World Dr to US 192	D	6LD	3,300	4,580	**5,580**	6,200
US 192 to Osceola Pkwy	D	6LD	3,300	4,580	**5,580**	6,200
Osceola Pkwy to Epcot Center Dr	D	6LD	3,300	4,580	**5,580**	6,200
Epcot Center Dr to CR 535	D	8LD	4,400	6,080	**7,420**	8,400
US 192						
East RCID boundary to I-4	D	6LD	-	2,080	**2,680**	2,830
I-4 to World Dr	D	6LD	3,300	4,580	**5,580**	6,200
World Dr to Road B-1 (Griffin Rd)	D	6LD	2,400	2,860	**2,940**	2,940
Road B-1 (Griffin Rd) to West RCID boundary	D	6LD	2,400	2,860	**2,940**	2,940
SR 429						
South of Western Way	D	4LD	2,200	3,020	**3,720**	4,020
North of Western Way	D	4LD	2,200	3,020	**3,720**	4,020
CR 535 (15% increase for constrained facility)						
I-4 to Hotel Plaza Blvd	E	6LD	-	2,392	3,082	**3,255**
Hotel Plaza Blvd to Apopka-Vineland Rd	E	6LD	-	2,392	3,082	**3,255**
World Drive						
I-4 to Road B-1 (Griffin Rd)	E	4LD	2,200	3,020	3,720	**4,020**
Road B-1 (Griffin Rd) to US 192	E	4LD	2,200	3,020	3,720	**4,020**
US 192 to Osceola Pkwy	E	6LD	3,300	4,580	5,580	**6,200**
Osceola Pkwy to Buena Vista Dr	E	6LD	3,300	4,580	5,580	**6,200**
Buena Vista Dr to EPCOT Center Dr	E	6LD	3,300	4,580	5,580	**6,200**
Epcot Center Drive						
I-4 to Buena Vista Dr	E	6LD	3,300	4,580	5,580	**6,200**
Buena Vista Dr to World Dr	E	6LD	3,300	4,580	5,580	**6,200**
Osceola Parkway						
I-4 to Victory Way	E	6LD	3,300	4,580	5,580	**6,200**
Victory Way to World Dr (*)	E	4LD	1,300	2,130	2,260	**2,300**
World Dr to Buena Vista Dr	E	4LD	2,200	3,020	3,720	**4,020**
Western Way						
Buena Vista Dr to Bear Island Rd	E	4LD	1,560	1,890	1,960	**1,960**
Bear Island Rd to SR 429	E	4LD	1,560	1,890	1,960	**1,960**
Flamingo Crossings Blvd to Flagler Ave	E	4LD	-	670	1,500	**1,700**
Flamingo Crossing Boulevard						
SR 545 to Flagler Ave	E	2L	400	800	1,140	**1,440**
Flagler Ave to Western Way	E	4LD	-	670	1,500	**1,700**
Western Way to South RCID Boundary	E	4LD	-	670	1,500	**1,700**
Buena Vista Drive						
CR 535 to Disney Vacation Club Way	E	4LD	1,560	1,890	1,960	**1,960**
Disney Vacation Club Way to Hotel Plaza Blvd	E	4LD	1,560	1,890	1,960	**1,960**
Hotel Plaza Blvd to Team Disney	E	6LD	-	1,050	2,330	**2,570**
Team Disney to Typhoon Lagoon	E	6LD	340	2,080	2,680	**2,830**
Typhoon Lagoon to Bonnet Creek Pkwy	E	6LD	340	2,080	2,680	**2,830**
Bonnet Creek Pkwy to Backstage Lane (*)	E	6LD	2,820	3,230	3,230	**3,230**
Backstage Lane to Victory Way (*)	E	6LD	2,820	3,230	3,230	**3,230**
Victory Way to Epcot Resorts Blvd East (*)	E	6LD	2,820	3,230	3,230	**3,230**
Epcot Resorts Blvd East to Epcot Resorts Blvd West (*)	E	6LD	2,820	3,230	3,230	**3,230**
Epcot Resorts Blvd West to World Dr (*)	E	6LD	2,820	3,230	3,230	**3,230**
World Dr to Western Way	E	4LD	-	1,330	1,770	**1,870**
Western Way to Osceola Pkwy	E	4LD	-	1,330	1,770	**1,870**
Hotel Plaza Boulevard (15% increase for constrained fac.)						
West of CR 535	E	4LD	-	1,530	2,036	**2,151**
East of Buena Vista Dr	E	4LD	-	1,530	2,036	**2,151**
Bonnet Creek Parkway						
Buena Vista Dr to Overpass Rd	E	4LD	-	1,197	1,593	**1,683**
Overpass Rd to Disney Vacation Club Way	E	4LD	-	1,197	1,593	**1,683**
Disney Vacation Club Way Dr to Vista Way	E	4LD	1,615	1,956	2,029	**2,029**
EPCOT Resorts Boulevard						
Buena Vista Dr to Water Bridge	E	4LD	-	865	1,151	**1,216**
Water Bridge to Dolphin Hotel	E	2L	459	738	792	**792**
Dolphin Hotel to Buena Vista Dr	E	4LD	1,014	1,229	1,274	**1,274**
Victory Way						
Osceola Pkwy to Buena Vista Dr	E	4LD	1,404	1,701	1,764	**1,764**
Road B-1 (Griffin Road)						
World Dr to US 192	E	2L	459	738	792	**792**
Flagler Avenue (Divided)						
Western Way to Flamingo Crossings	E	2LD	482	775	832	**832**

Note: FDOT ART-PLAN Software (*)
New Roadway Segment

2015 Conditions

Table 3-14 presents the 2015 peak hour / peak direction level of service conditions based on the capacities shown in Table 3-13, and Figure 3-13 provides a graphic representation of the LOS conditions for the District's CMS roadways. Based on 2015 projected traffic volumes, the five State maintained roadway facilities will operate below their adopted LOS standards:

- Interstate 4 from Southwest RCID boundary to World Drive
- Interstate 4 from US 192 to Osceola Parkway
- Interstate 4 from Osceola Parkway to Epcot Center Drive
- US 192 from East RCID Boundary to I-4.
- US 192 from Road B-1 (Griffin Road) to West RCID Boundary.

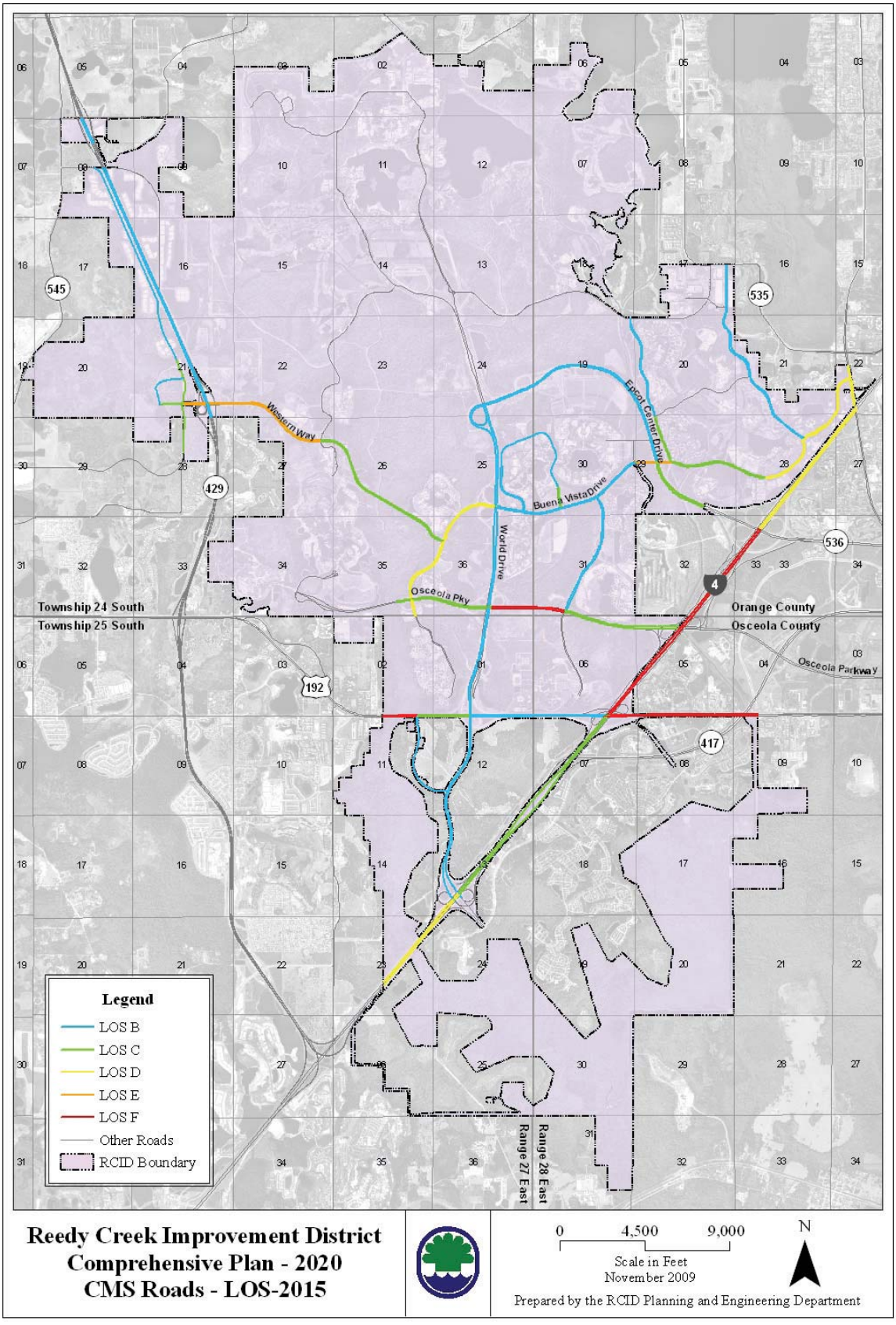
Interstate 4 – As previously mentioned funds are programmed in the FDOT Adopted Five-Year Work Program and MetroPlan Orlando TIP for right-of-way acquisition for I-4 in Orange and Osceola Counties; however the capacity of the Interstate 4 segments will not change during the 2015 planning period.

US 192 – There are no programmed or planned improvement for these segments of US 192 in the FDOT Adopted Five-Year Work Program or MetroPlan Orlando TIP.

Table 3-14: RCID Roadways – 2015 Level of Service (Future Conditions)

Roadway / Segment	LOS Std.	# of Lanes	LOS Capacity	PM Peak Hour / Direction	
				Volume	LOS
Interstate 4					
S.W. RCID boundary to World Dr	D	6LD	5,580	5,517	D
World Dr to US 192	D	6LD	5,580	4,527	C
US 192 to Osceola Pkwy	D	6LD	5,580	6,876	F
Osceola Pkwy to Epcot Center Dr	D	6LD	5,580	6,986	F
Epcot Center Dr to CR 535	D	6LD	7,420	7,418	D
US 192					
East RCID boundary to I-4	D	6LD	2,680	2,994	F
I-4 to World Dr	D	6LD	5,580	3,082	B
World Dr to Road B-1 (Griffin Rd)	D	6LD	2,940	2,700	C
Road B-1 (Griffin Rd) to West RCID boundary	D	6LD	2,940	3,123	F
SR 429					
South of Western Way	D	4LD	3,720	947	B
North of Western Way	D	4LD	3,720	912	B
CR 535					
I-4 to Hotel Plaza Blvd	E	6LD	3,255	2,604	D
Hotel Plaza Blvd to Apopka-Vineland Rd	E	6LD	3,255	3,004	D
World Drive					
I-4 to Road B-1 (Griffin Rd)	E	4LD	4,020	1,163	B
Road B-1 (Griffin Rd) to US 192	E	4LD	4,020	1,069	B
US 192 to Osceola Pkwy	E	6LD	6,200	3,231	B
Osceola Pkwy to Buena Vista Dr	E	6LD	6,200	2,878	B
Buena Vista Dr to EPCOT Center Dr	E	6LD	6,200	1,919	B
Epcot Center Drive					
I-4 to Buena Vista Dr	E	6LD	6,200	4,591	D
Buena Vista Dr to World Dr	E	6LD	6,200	1,338	B
Osceola Parkway					
I-4 to Victory Way	E	6LD	6,200	3,568	C
Victory Way to World Dr	E	4LD	2,300	2,146	D
World Dr to Buena Vista Dr	E	4LD	4,020	2,721	C
Western Way					
Buena Vista Dr to Bear Island Rd	E	4LD	1,960	1,855	C
Bear Island Rd to SR 429	E	4LD	1,960	1,914	E
Flamingo Crossings Blvd to Flagler Ave	E	4LD	1,700	543	C
Flamingo Crossing Boulevard					
SR 545 to Flagler Ave	E	2L	1,440	331	B
Flagler Ave to Western Way	E	4LD	1,700	331	C
Western Way to RCID Boundary	E	4LD	1,700	383	C
Buena Vista Drive					
CR 535 to Disney Vacation Club Way	E	4LD	1,960	329	B
Disney Vacation Club Way to Hotel Plaza Blvd	E	4LD	1,960	641	B
Hotel Plaza Blvd to Team Disney	E	6LD	2,570	1,773	D
Team Disney to Typhoon Lagoon	E	6LD	2,830	1,551	C
Typhoon Lagoon to Bonnet Creek Pkwy	E	6LD	2,830	1,742	C
Bonnet Creek Pkwy to Backstage Lane	E	6LD	3,230	3,029	E
Backstage Lane to Victory Way	E	6LD	3,230	2,673	B
Victory Way to Epcot Resorts Blvd East	E	6LD	3,230	2,392	B
Epcot Resorts Blvd East to Epcot Resorts Blvd West	E	6LD	3,230	1,979	B
Epcot Resorts Blvd West to World Dr	E	6LD	3,230	2,179	B
World Dr to Western Way	E	4LD	1,870	1,685	D
Western Way to Osceola Pkwy	E	4LD	1,870	1,611	D
Hotel Plaza Boulevard					
West of CR 535	E	4LD	2,151	2,036	D
East of Buena Vista Dr	E	4LD	2,151	1,907	D
Bonnet Creek Parkway					
Buena Vista Dr to Overpass Rd	E	4LD	1,683	596	C
Overpass Rd to Disney Vacation Club Way	E	4LD	1,683	999	C
Disney Vacation Club Way Dr to Vista Way	E	4LD	2,029	723	B
EPCOT Resorts Boulevard					
Buena Vista Dr to Water Bridge	E	4LD	1,216	293	C
Water Bridge to Dolphin Hotel	E	2L	792	266	B
Dolphin Hotel to Buena Vista Dr	E	4LD	1,274	227	B
Victory Way					
Osceola Pkwy to Buena Vista Dr	E	4LD	1,764	982	B
Road B-1 (Griffin Road)					
World Dr to US 192	E	2L	792	109	B
Flagler Avenue					
Western Way to Flamingo Crossings	E	2LD	832	207	B

Figure 3-13: RCID Roadways – 2015 Level of Service



2020 ROAD NETWORK

Programmed or Planned Improvements

There are no programmed or planned roadway improvements within the District during 2016 through 2020. Impending improvements are discussed under **2020 Conditions**.

Roadway Inventory

Table 3-15 (2020 Roadway Inventory – unchanged), Figure 3-14 (RCID Roadways – 2020 Functional Classification – unchanged), Figure 3-15 (RCID Roadways – 2020 Administrative Classification – unchanged), and Table 3-16 (2020 Peak Hour / Peak Directional Level of Service Capacities – unchanged) show the District's future conditions for 2020.

Table 3-15: 2020 Roadway Inventory

Roadway / Segment	Length (miles)	Number of Lanes	Maintenance Responsibility	Functional Classification
Interstate 4			State	PA (Ltd. Access)
S.W. RCID boundary to World Dr	1.19	6LD	State	PA (Ltd. Access)
World Dr to US 192	2.88	6LD	State	PA (Ltd. Access)
US 192 to Osceola Pkwy	2.29	6LD	State	PA (Ltd. Access)
Osceola Pkwy to Epcot Center Dr	1.25	6LD	State	PA (Ltd. Access)
Epcot Center Dr to CR 535	1.56	6LD	State	PA (Ltd. Access)
US 192				
East RCID boundary to I-4	1.53	6LD	State	Principal Arterial
I-4 to World Dr	1.36	6LD	State	PA (Ltd. Access)
World Dr to Road B-1 (Griffin Rd)	0.54	6LD	State	Principal Arterial
Road B-1 (Griffin Rd) to West RCID boundary	0.34	6LD	State	Principal Arterial
SR 429				
South of Western Way	0.38	4LD	State	PA (Ltd. Access)
North of Western Way	2.87	4LD	State	PA (Ltd. Access)
CR 535				
I-4 to Hotel Plaza Blvd	0.26	6LD	Orange County	Principal Arterial
Hotel Plaza Blvd to Apopka-Vineland Rd	0.14	6LD	Orange County	Principal Arterial
World Drive				
I-4 to Road B-1 (Griffin Rd)	1.15	4LD	RCID	PA (Ltd. Access)
Road B-1 (Griffin Rd) to US 192	0.83	4LD	RCID	PA (Ltd. Access)
US 192 to Osceola Pkwy	2.29	6LD	RCID	PA (Ltd. Access)
Osceola Pkwy to Buena Vista Dr	2.28	6LD	RCID	PA (Ltd. Access)
Buena Vista Dr to EPCOT Center Dr	1.05	6LD	RCID	PA (Ltd. Access)
Epcot Center Drive				
I-4 to Buena Vista Dr	0.68	6LD	RCID	PA (Ltd. Access))
Buena Vista Dr to World Dr	2.93	6LD	RCID	PA (Ltd. Access)
Osceola Parkway				
I-4 to Victory Way	1.16	6LD	RCID	PA (Ltd. Access)
Victory Way to World Dr	0.74	4LD	RCID	Principal Arterial
World Dr to Buena Vista Dr	0.96	4LD	RCID	PA (Ltd. Access)
Western Way				
Buena Vista Dr to Bear Island Rd	1.69	4LD	RCID	Principal Arterial
Bear Island Rd to SR 429	1.11	4LD	RCID	Principal Arterial
Flamingo Crossings Blvd to Flagler Ave	0.26	4LD	RCID	Minor Arterial
Flamingo Crossing Boulevard				
SR 545 to Flagler Ave	2.13	2L	RCID	Minor Arterial
Flagler Ave to Western Way	0.46	4LD	RCID	Minor Arterial
Western Way to RCID Boundary		4LD	RCID	Minor Arterial
Buena Vista Drive				
CR 535 to Disney Vacation Club Way	1.23	4LD	RCID	Minor Arterial
Disney Vacation Club Way to Hotel Plaza Blvd	0.85	4LD	RCID	Minor Arterial
Hotel Plaza Blvd to Team Disney	0.64	6LD	RCID	Minor Arterial
Team Disney to Typhoon Lagoon	0.44	6LD	RCID	Minor Arterial
Typhoon Lagoon to Bonnet Creek Pkwy	0.56	6LD	RCID	Minor Arterial
Bonnet Creek Pkwy to Backstage Lane	0.36	6LD	RCID	Minor Arterial
Backstage Lane to Victory Way	0.53	6LD	RCID	Minor Arterial
Victory Way to Epcot Resorts Blvd East	0.37	6LD		
Epcot Resorts Blvd East to Epcot Resorts Blvd West	0.40	6LD	RCID	Minor Arterial
Epcot Resorts Blvd West to World Dr	0.26	6LD	RCID	Minor Arterial
World Dr to Western Way	0.73	4LD	RCID	Minor Arterial
Western Way to Osceola Pkwy	0.90	4LD	RCID	Minor Arterial
Hotel Plaza Boulevard				
West of CR 535	0.44	4LD	RCID	Minor Arterial
East of Buena Vista Dr	0.41	4LD	RCID	Minor Arterial
Bonnet Creek Parkway				
Buena Vista Dr to Overpass Rd	0.24	4LD	RCID	Collector
Overpass Rd to Disney Vacation Club Way	0.25	4LD	RCID	Collector
Disney Vacation Club Way to Vista Way	1.05	4LD		
EPCOT Resorts Boulevard				
Buena Vista Dr to Water Bridge	0.21	4LD	RCID	Collector
Water Bridge to Dolphin Hotel	1.21	2L	RCID	Collector
Dolphin Hotel to Buena Vista Dr	0.60	4LD	RCID	Collector
Victory Way				
Osceola Pkwy to Buena Vista Dr	0.74	4LD	RCID	Collector
Road B-1 (Griffin Road)				
World Dr to US 192	5.75	2L	RCID	Collector
Flagler Avenue				
Western Way to Flamingo Crossings	0.49	2LD	RCID	Collector

Figure 3-14: RCID Roadways – 2020 Functional Classification

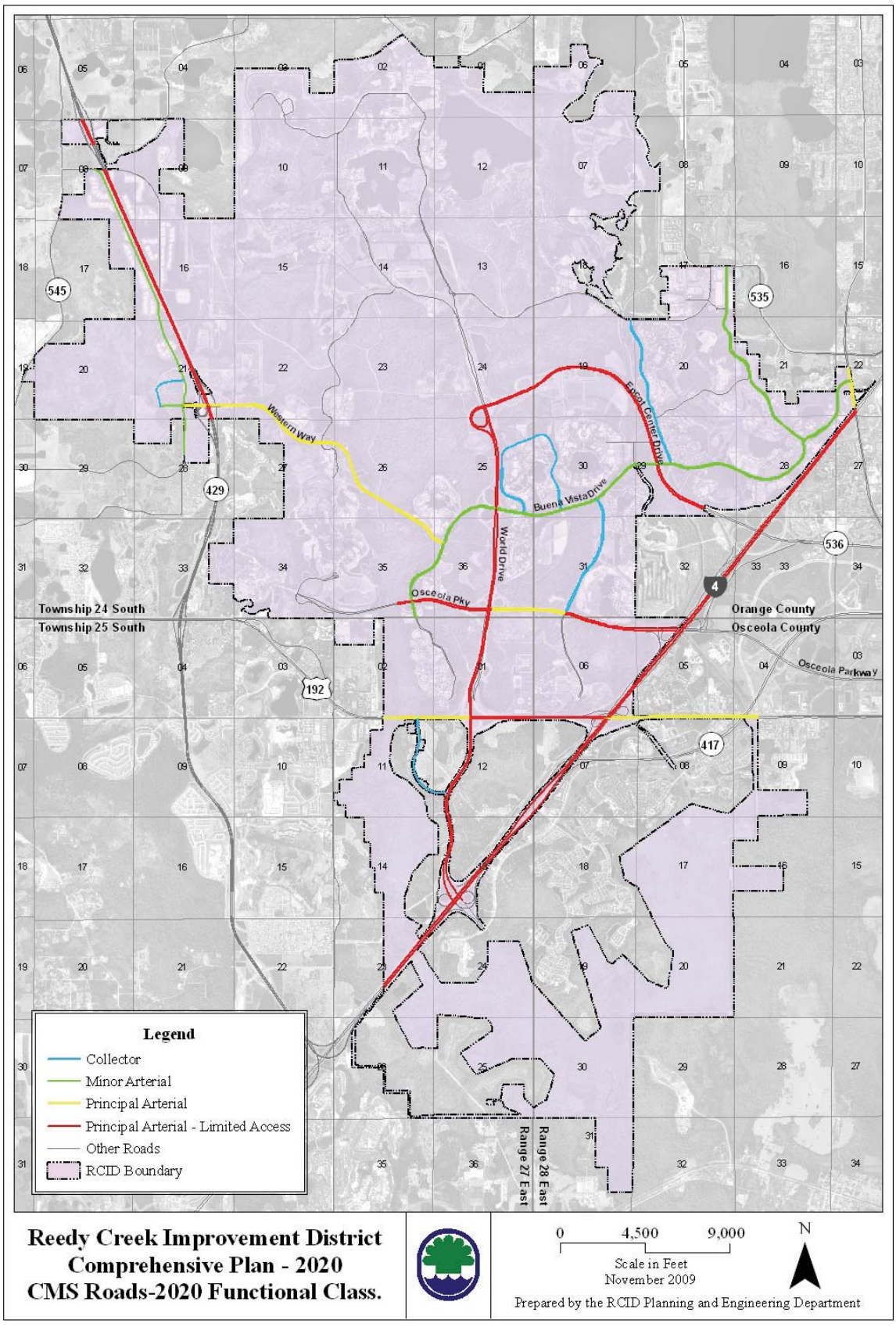


Figure 3-15: RCID Roadways – 2020 Administrative Classification

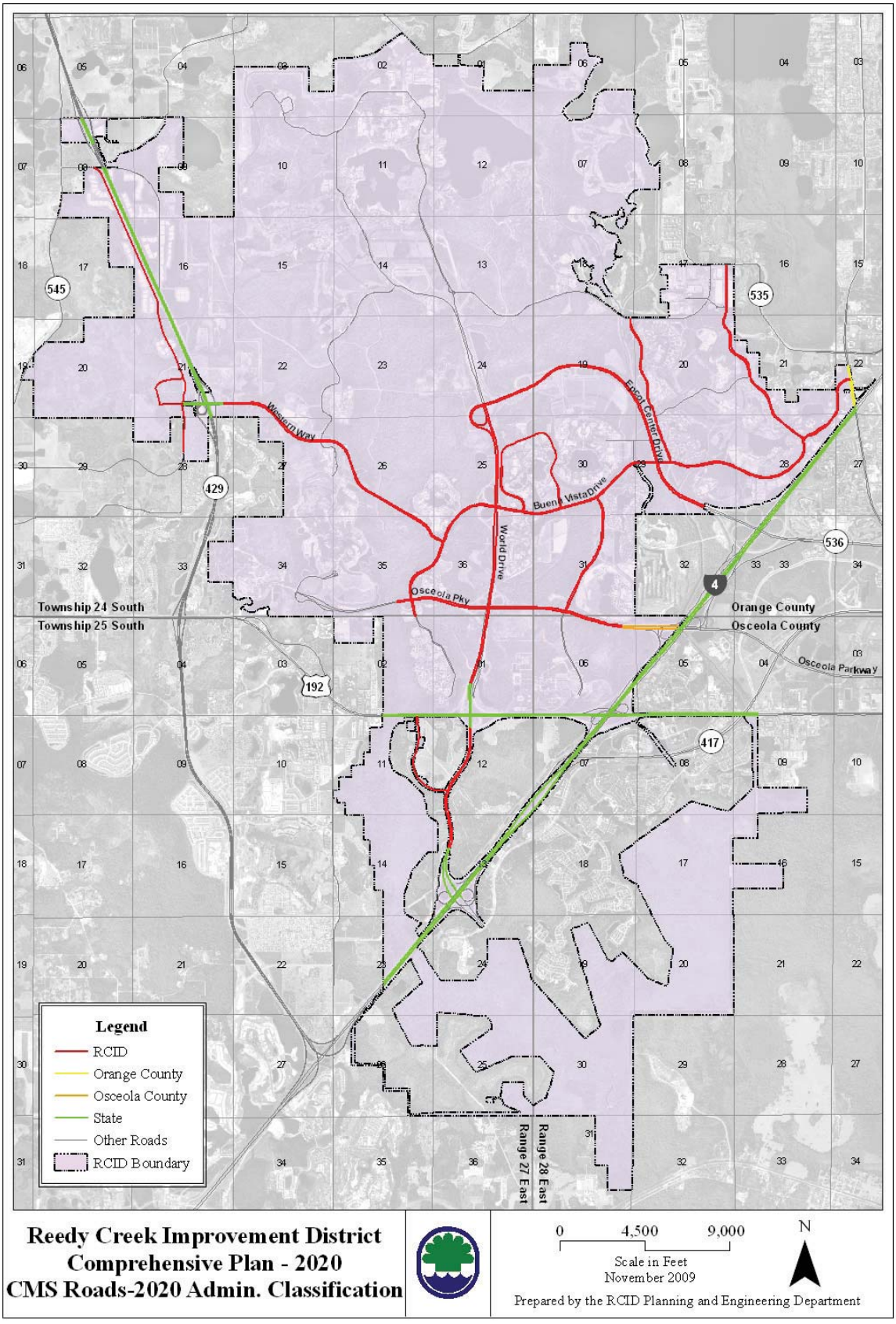


Table 3-16: 2020 Peak Hour / Peak Directional Level of Service Capacities

Roadway / Segment	LOS Std.	# of Lanes	Level of Service Capacities			
			B	C	D	E
Interstate 4						
S.W. RCID boundary to World Dr	D	6LD	3,300	4,580	**5,580**	6,200
World Dr to US 192	D	6LD	3,300	4,580	**5,580**	6,200
US 192 to Osceola Pkwy	D	6LD	3,300	4,580	**5,580**	6,200
Osceola Pkwy to Epcot Center Dr	D	6LD	3,300	4,580	**5,580**	6,200
Epcot Center Dr to CR 535	D	8LD	4,400	6,080	**7,420**	8,400
US 192						
East RCID boundary to I-4	D	6LD	-	2,080	**2,680**	2,830
I-4 to World Dr	D	6LD	3,300	4,580	**5,580**	6,200
World Dr to Road B-1 (Griffin Rd)	D	6LD	2,400	2,860	**2,940**	2,940
Road B-1 (Griffin Rd) to West RCID boundary	D	6LD	2,400	2,860	**2,940**	2,940
SR 429						
South of Western Way	D	4LD	2,200	3,020	**3,720**	4,020
North of Western Way	D	4LD	2,200	3,020	**3,720**	4,020
CR 535 (15% increase for constrained facility)						
I-4 to Hotel Plaza Blvd	E	6LD	-	2,392	3,082	**3,255**
Hotel Plaza Blvd to Apopka-Vineland Rd	E	6LD	-	2,392	3,082	**3,255**
World Drive						
I-4 to Road B-1 (Griffin Rd)	E	4LD	2,200	3,020	3,720	**4,020**
Road B-1 (Griffin Rd) to US 192	E	4LD	2,200	3,020	3,720	**4,020**
US 192 to Osceola Pkwy	E	6LD	3,300	4,580	5,580	**6,200**
Osceola Pkwy to Buena Vista Dr	E	6LD	3,300	4,580	5,580	**6,200**
Buena Vista Dr to EPCOT Center Dr	E	6LD	3,300	4,580	5,580	**6,200**
Epcot Center Drive						
I-4 to Buena Vista Dr	E	6LD	3,300	4,580	5,580	**6,200**
Buena Vista Dr to World Dr	E	6LD	3,300	4,580	5,580	**6,200**
Osceola Parkway						
I-4 to Victory Way	E	6LD	3,300	4,580	5,580	**6,200**
Victory Way to World Dr (*)	E	4LD	1,300	2,130	2,260	**2,300**
World Dr to Buena Vista Dr	E	4LD	2,200	3,020	3,720	**4,020**
Western Way						
Buena Vista Dr to Bear Island Rd	E	4LD	1,560	1,890	1,960	**1,960**
Bear Island Rd to SR 429	E	4LD	1,560	1,890	1,960	**1,960**
Flamingo Crossings Blvd to Flagler Ave	E	4LD	-	670	1,500	**1,700**
Flamingo Crossing Boulevard						
SR 545 to Flagler Ave	E	2L	400	800	1,140	**1,440**
Flagler Ave to Western Way	E	4LD	-	670	1,500	**1,700**
Western Way to South RCID Boundary	E	4LD	-	670	1,500	**1,700**
Buena Vista Drive						
CR 535 to Disney Vacation Club Way	E	4LD	1,560	1,890	1,960	**1,960**
Disney Vacation Club Way to Hotel Plaza Blvd	E	4LD	1,560	1,890	1,960	**1,960**
Hotel Plaza Blvd to Team Disney	E	6LD	-	1,050	2,330	**2,570**
Team Disney to Typhoon Lagoon	E	6LD	340	2,080	2,680	**2,830**
Typhoon Lagoon to Bonnet Creek Pkwy	E	6LD	340	2,080	2,680	**2,830**
Bonnet Creek Pkwy to Backstage Lane (*)	E	6LD	2,820	3,230	3,230	**3,230**
Backstage Lane to Victory Way (*)	E	6LD	2,820	3,230	3,230	**3,230**
Victory Way to Epcot Resorts Blvd East (*)	E	6LD	2,820	3,230	3,230	**3,230**
Epcot Resorts Blvd East to Epcot Resorts Blvd West (*)	E	6LD	2,820	3,230	3,230	**3,230**
Epcot Resorts Blvd West to World Dr (*)	E	6LD	2,820	3,230	3,230	**3,230**
World Dr to Western Way	E	4LD	-	1,330	1,770	**1,870**
Western Way to Osceola Pkwy	E	4LD	-	1,330	1,770	**1,870**
Hotel Plaza Boulevard (15% increase for constrained fac.)						
West of CR 535	E	4LD	-	1,530	2,036	**2,151**
East of Buena Vista Dr	E	4LD	-	1,530	2,036	**2,151**
Bonnet Creek Parkway						
Buena Vista Dr to Overpass Rd	E	4LD	-	1,197	1,593	**1,683**
Overpass Rd to Disney Vacation Club Way	E	4LD	-	1,197	1,593	**1,683**
Disney Vacation Club Way Dr to Vista Way	E	4LD	1,615	1,956	2,029	**2,029**
EPCOT Resorts Boulevard						
Buena Vista Dr to Water Bridge	E	4LD	-	865	1,151	**1,216**
Water Bridge to Dolphin Hotel	E	2L	459	738	792	**792**
Dolphin Hotel to Buena Vista Dr	E	4LD	1,014	1,229	1,274	**1,274**
Victory Way						
Osceola Pkwy to Buena Vista Dr	E	4LD	1,404	1,701	1,764	**1,764**
Road B-1 (Griffin Road)						
World Dr to US 192	E	2L	459	738	792	**792**
Flagler Avenue (Divided)						
Western Way to Flamingo Crossings	E	2LD	482	775	832	**832**

Note: FDOT ART-PLAN Software (*)

2020 Conditions

Table 3-17 presents the 2020 peak hour / peak direction level of service conditions based on the capacities shown in Table 3-16. Figure 3-16 provides a graphic representation of the LOS conditions for the District's CMS roadways. Based on 2020 projected traffic volumes, the five State maintained roadway facilities will operate below their adopted LOS standards:

- South West RCID boundary to World Drive
- Interstate 4 from US 192 to Osceola Parkway
- Interstate 4 from Osceola Parkway to Epcot Center Drive
- US 192 from East RCID Boundary to I-4.
- US 192 from Road B-1 (Griffin Road) to West RCID Boundary.

One Orange County maintained roadway will fall below its adopted LOS standard based on projected 2020 traffic volumes:

- CR 535 from Hotel Plaza Blvd to Apopka-Vineland Road

And seven segments of District roadways will function below their adopted LOS based on projected 2020 traffic volumes:

- Osceola Parkway from Victory Way to World Drive
- Western Way from Buena Vista Drive to Bear Island Road
- Western Way from Bear Island Road to SR 429
- Buena Vista Drive from Bonnet Creek Parkway to Backstage Lane
- Buena Vista Drive from World Drive to Western Way
- Hotel Plaza Blvd west of CR 535
- Hotel Plaza Blvd east of Buena Vista Drive

Interstate 4 – As previously mentioned funds are programmed in the FDOT Adopted Five-Year Work Program and MetroPlan Orlando TIP for right-of-way acquisition for I-4 in Orange and Osceola Counties; however the capacity of the Interstate 4 segments will not change during the 2020 planning period.

US 192 – These roadway segments are not included in the MetroPlan Orlando Urban Area Prioritized Project List for FY 2014/15 through 2029/30.

Osceola Parkway from Victory Way to World Drive – In the previous Comprehensive Plan update, this segment of roadway was programmed for widening from four to six lanes and a new interchange which would have allowed for a change in functional classification from Principal Arterial to Principal Arterial – Limited Access and greatly increase the capacity of this segment. The anticipated development never materialized to justify the roadway improvements. As with the previous Comprehensive Plan update this update also projects a significant number of trips resulting from development along the Osceola Parkway corridor at and adjacent to ESPN Wide World of Sports. Improving this roadway segment from four to six lanes, without the interchange improvement, would correct the projected deficiency into the 2016 though 2020 planning period. However, in the event of significant development at or adjacent to ESPN Wide World of Sports, the interchange improvement or additional lanes could be required to maintain the adopted LOS standard.

Western Way – The need to widen this roadway to six lanes was foreseen at the time of its design and construction. The sub-structure for the two bridges on Western Way were designed and constructed to accommodate additional decking when the roadway is widened from four to six lanes. The widening can be accommodated within the existing right-of-way. The widening of Western Way will be added to the CIE as development of the Flamingo Crossings project advances and seems likely to generate the trips currently projected.

Buena Vista Drive from Bonnet Creek Parkway to Backstage Lane – This segment of roadway and the Buena Vista Drive from Backstage Land to Victory Way roadway segment the will need to be closely monitored to assess the impacts of the Bonnet Creek Resort development (located in Orange County, but accessed through the District) and any additional demand from future projects within the District. Intersection improvements were made to accommodate the Bonnet Creek Resort trips, but adding additional capacity would be a challenge. The Bonnet Creek Parkway to Backstage Lane segment of Buena Vista Drive is bordered to the north and south by wetlands and passes under Epcot Center Drive. These constraints may necessitate classifying this segment of roadway as a constrained facility.

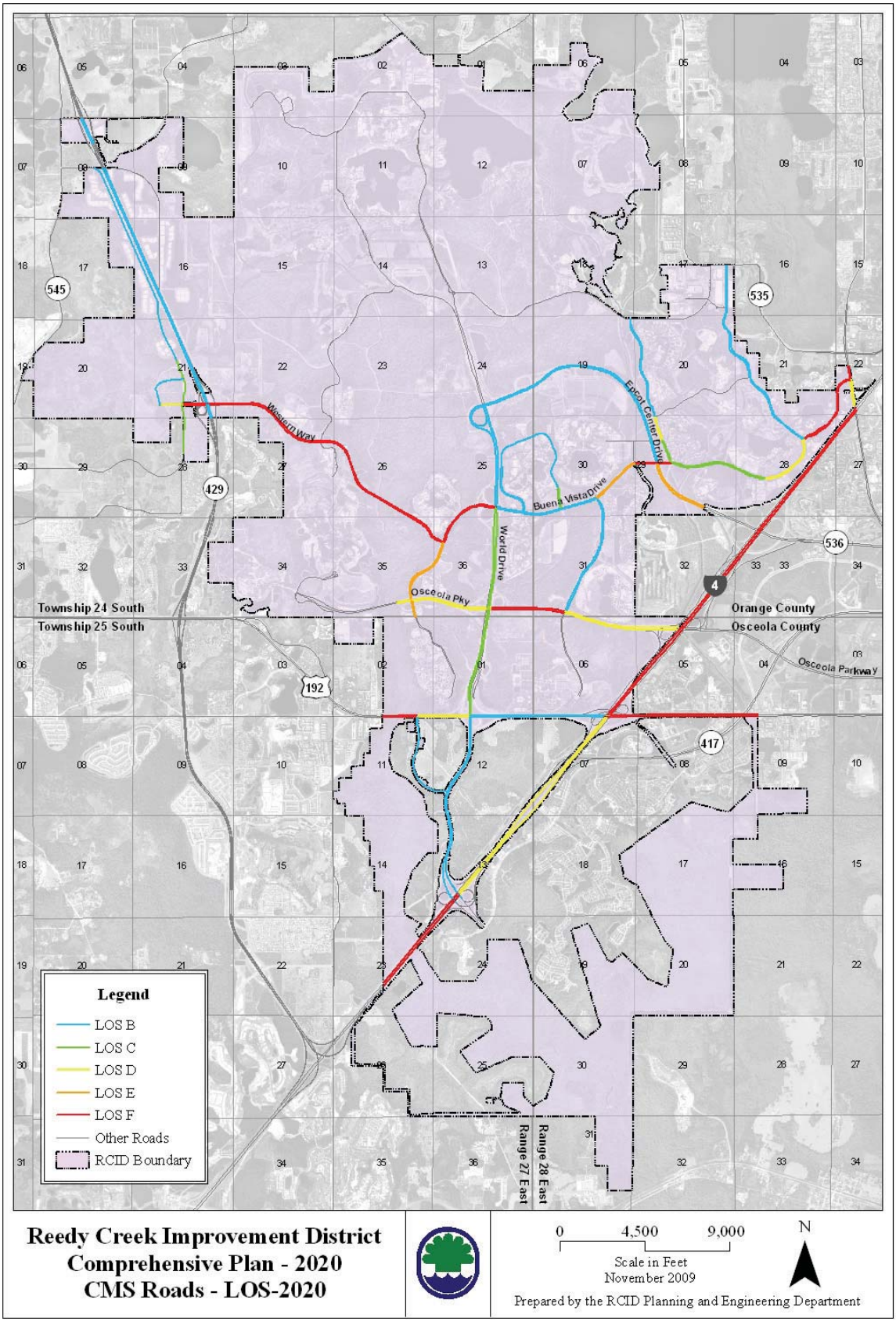
Buena Vista Drive from World Drive to Western Way – The operating level of service of this segment of roadway and the segment to the south (Buena Vista Drive from Western Way to Osceola Parkway) are closed tied to the success of the Flamingo Crossing development project. This northern segment is projected to operate below its adopted LOS in the event of the development of a resort on a parcel of land adjacent to World Drive opposite Disney's Hollywood Studios. Sufficient right-of-way exists to widen Buena Vista Drive from World Drive to Osceola Parkway from four to six lanes.

Hotel Plaza Blvd – This roadway is a constrained facility. The Hotel Plaza corridor is fully developed, primarily with hotel uses. The RCID has made a policy decision not to provide additional through lanes for this roadway in order to preserve existing land uses, support pedestrian mobility, and retain the attractive tree-lined character of the boulevard. As a constrained segment, the capacity on this roadway is allowed to exceed the minimum adopted standard. The increased congestion will create slower traffic speeds, improving pedestrian mobility and safety, while encouraging motorists to use other routes or modes of travel. Every effort is made to direct vehicular travel away from Hotel Plaza Blvd with signage and with directions provided by the resort owners within the District.

Table 3-17: RCID Roadways – 2020 Level of Service (Future Conditions)

Roadway / Segment	LOS Std.	# of Lanes	LOS Capacity	PM Peak Hour / Direction	
				Volume	LOS
Interstate 4					
S.W. RCID boundary to World Dr	D	6LD	5,580	6,272	F
World Dr to US 192	D	6LD	5,580	5,017	D
US 192 to Osceola Pkwy	D	6LD	5,580	7,706	F
Osceola Pkwy to Epcot Center Dr	D	6LD	5,580	7,956	F
Epcot Center Dr to CR 535	D	6LD	7,420	8,568	F
US 192					
East RCID boundary to I-4	D	6LD	2,680	3,224	F
I-4 to World Dr	D	6LD	5,580	2,865	B
World Dr to Road B-1 (Griffin Rd)	D	6LD	2,940	2,889	D
Road B-1 (Griffin Rd) to West RCID boundary	D	6LD	2,940	3,282	F
SR 429					
South of Western Way	D	4LD	3,720	1,118	B
North of Western Way	D	4LD	3,720	1,063	B
CR 535					
I-4 to Hotel Plaza Blvd	E	6LD	3,255	2,762	D
Hotel Plaza Blvd to Apopka-Vineland Rd	E	6LD	3,255	3,440	F
World Drive					
I-4 to Road B-1 (Griffin Rd)	E	4LD	4,020	1,518	B
Road B-1 (Griffin Rd) to US 192	E	4LD	4,020	1,404	B
US 192 to Osceola Pkwy	E	6LD	6,200	3,705	C
Osceola Pkwy to Buena Vista Dr	E	6LD	6,200	3,323	C
Buena Vista Dr to EPCOT Center Dr	E	6LD	6,200	2,250	B
Epcot Center Drive					
I-4 to Buena Vista Dr	E	6LD	6,200	5,934	E
Buena Vista Dr to World Dr	E	6LD	6,200	3,001	B
Osceola Parkway					
I-4 to Victory Way	E	6LD	6,200	5,308	D
Victory Way to World Dr	E	4LD	1,960	3,001	F
World Dr to Buena Vista Dr	E	4LD	4,020	3,150	D
Western Way					
Buena Vista Dr to Bear Island Rd	E	4LD	1,960	2,425	F
Bear Island Rd to SR 429	E	4LD	1,960	2,484	F
Flamingo Crossings Blvd to Flagler Ave	E	4LD	1,700	1,427	D
Flamingo Crossing Boulevard					
SR 545 to Flagler Ave	E	2L	1,440	392	B
Flagler Ave to Western Way	E	4LD	1,700	392	C
Western Way to RCID Boundary	E	4LD	1,700	463	C
Buena Vista Drive					
CR 535 to Disney Vacation Club Way	E	4LD	1,960	362	B
Disney Vacation Club Way to Hotel Plaza Blvd	E	4LD	1,960	625	B
Hotel Plaza Blvd to Team Disney	E	6LD	2,570	2,001	D
Team Disney to Typhoon Lagoon	E	6LD	2,830	1,684	C
Typhoon Lagoon to Bonnet Creek Pkwy	E	6LD	2,830	1,768	C
Bonnet Creek Pkwy to Backstage Lane	E	6LD	3,230	3,296	F
Backstage Lane to Victory Way	E	6LD	3,230	2,837	E
Victory Way to Epcot Resorts Blvd East	E	6LD	3,230	2,539	B
Epcot Resorts Blvd East to Epcot Resorts Blvd West	E	6LD	3,230	2,081	B
Epcot Resorts Blvd West to World Dr	E	6LD	3,230	2,448	B
World Dr to Western Way	E	4LD	1,870	1,997	F
Western Way to Osceola Pkwy	E	4LD	1,870	1,788	E
Hotel Plaza Boulevard					
West of CR 535	E	4LD	2,151	2,312	F
East of Buena Vista Dr	E	4LD	2,151	2,206	F
Bonnet Creek Parkway					
Buena Vista Dr to Overpass Rd	E	4LD	1,683	667	C
Overpass Rd to Disney Vacation Club Way	E	4LD	1,683	1,357	D
Disney Vacation Club Way Dr to Vista Way	E	4LD	2,029	953	B
EPCOT Resorts Boulevard					
Buena Vista Dr to Water Bridge	E	4LD	1,216	323	C
Water Bridge to Dolphin Hotel	E	2L	792	287	B
Dolphin Hotel to Buena Vista Dr	E	4LD	1,274	238	B
Victory Way					
Osceola Pkwy to Buena Vista Dr	E	4LD	1,764	1,036	B
Road B-1 (Griffin Road)					
World Dr to US 192	E	2L	792	109	B
Flagler Avenue					
Western Way to Flamingo Crossings	E	2LD	832	303	B

Figure 3-16: RCID Roadways – 2020 Level of Service



TRANSPORTATION NETWORK

Based on the existing and future conditions analyses provided in the preceding sections of this element, a transportation network for the Reedy Creek Improvement District has been developed for both 2015 and 2020. These roadway networks are presented in Figures 3-1 and 3-2 (in the Policies component).

2015/2020 TRANSPORTATION NETWORK

The Districts 2015/2020 roadway network will be little changed from the existing network. Only one roadway improvement project is programmed—the extension of Flamingo Crossings Blvd from Western Way to the southern boundary of the District. Additional roadway improvements are likely to be required as discussed previously. Private bus service within the District is extensive and buses and routes will be added as demand dictates. Additional LYNX service within the District will also be dictated by demand. Although no new sidewalks are planned to be added to existing roadways, pedestrian facilities are an integral feature of the Flamingo Crossings development as shown on Figure 3-17. Although the high speed rail line will be located within the I-4 corridor and will pass through the District, the location of the location of the station to service the Walt Disney World Resort is as yet undetermined. One location under consideration is located within the District and would advance the likelihood that improvements to Osceola Parkway would be required during the 2020 planning horizon regardless of resort development on adjacent parcels.

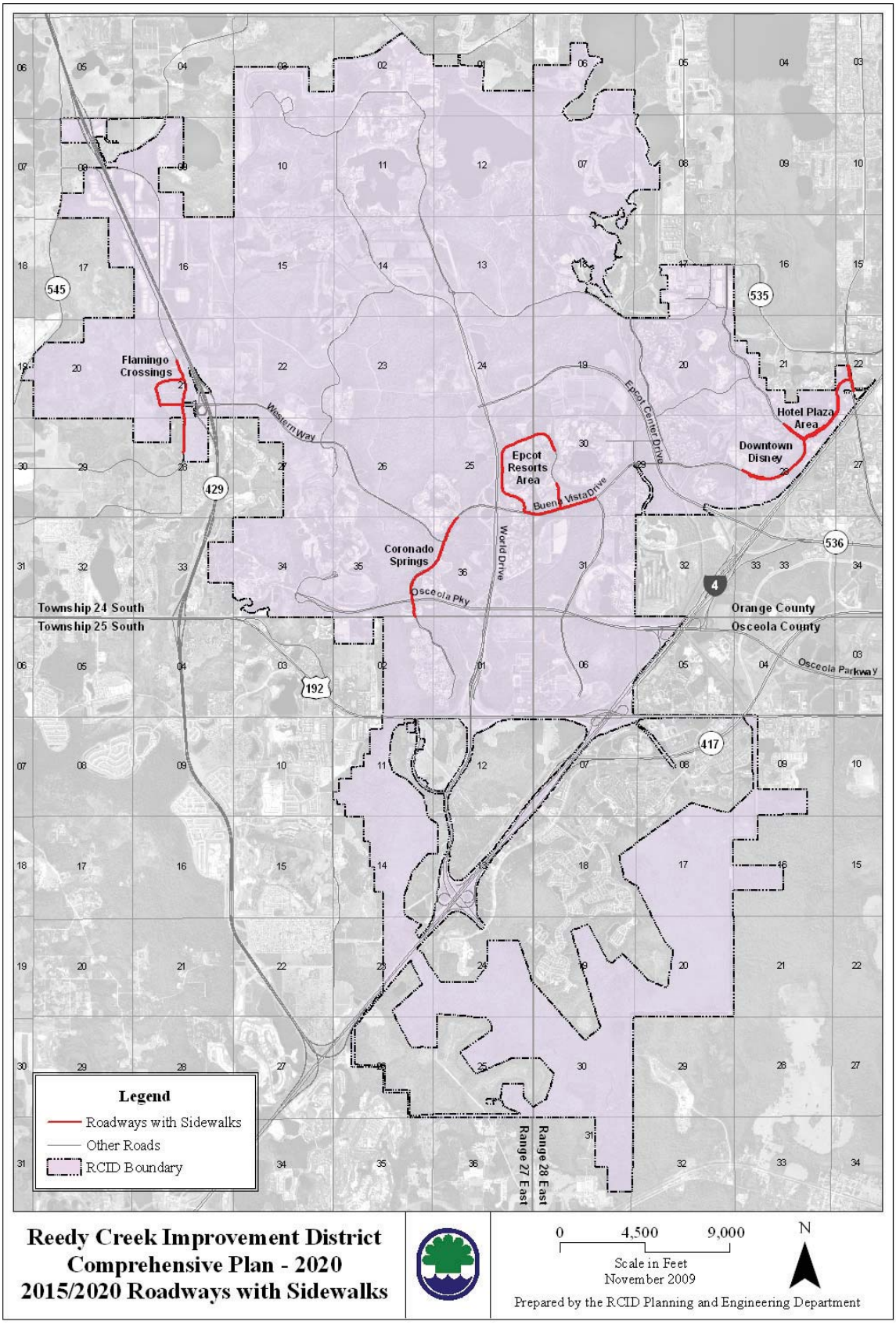
Although not currently programmed or planned, improvements will be in place or under construction within three years of issuing any development approvals that will cause any level of service standard deficiencies on RCID maintained roadways. As previously stated a Memorandum of Understanding with the Florida Department of Transportation is in place that allows the District's primary employer to purchase trips on Interstate -4 pursuant to a Joint Participation Agreement and Donation Agreement for the Construction of Interstate-4 Improvements as a means of satisfying concurrency for trips on I-4 as follows.

Tips Reserved in 1998	199,735	
Trips Purchased in 1998		199,735
Trips Utilized through 2006		190,068
Net Trips Available in 2006		9,667
Additional Trips Reserved in 2006	243,000	
Trips Purchased in 2007		66,735
Trips Utilized 2006 through 2008		7,121
Net Trips Available		**69,281**
Net Additional Trips Reserved	**176,265**	

There are sufficient trips available or reserved to cover the 198,280 incremental average daily trips allowed in Table 2-3 Development Thresholds in the Future Land Use Element.

Unlike most jurisdictions, the RCID has a unique opportunity to control driver behavior. A majority of the drivers within the RCID are tourists and are unfamiliar with the area. As such, these drivers rely heavily on signage to direct them to their destination. Through a comprehensive signage plan, the RCID is able to re-direct traffic to facilities with the greatest available capacity.

Figure 3-17: 2015 and 2020 Roadways with Sidewalks

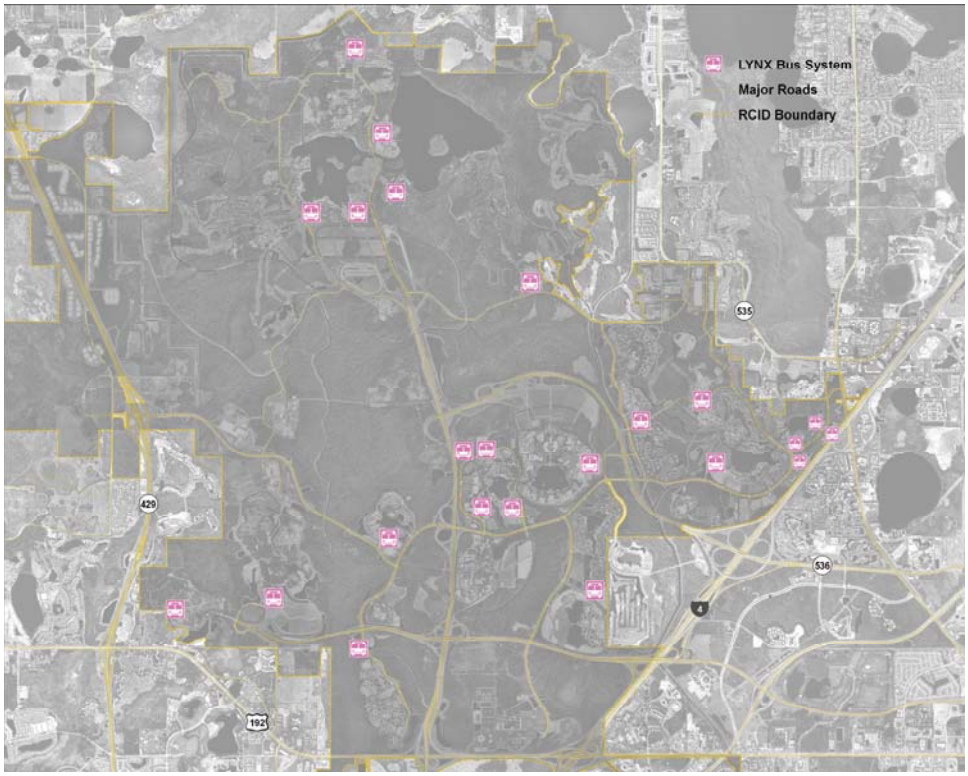


TRANSPORTATION NETWORK AND THE REDUCTION OF GREENHOUSE GAS EMISSIONS

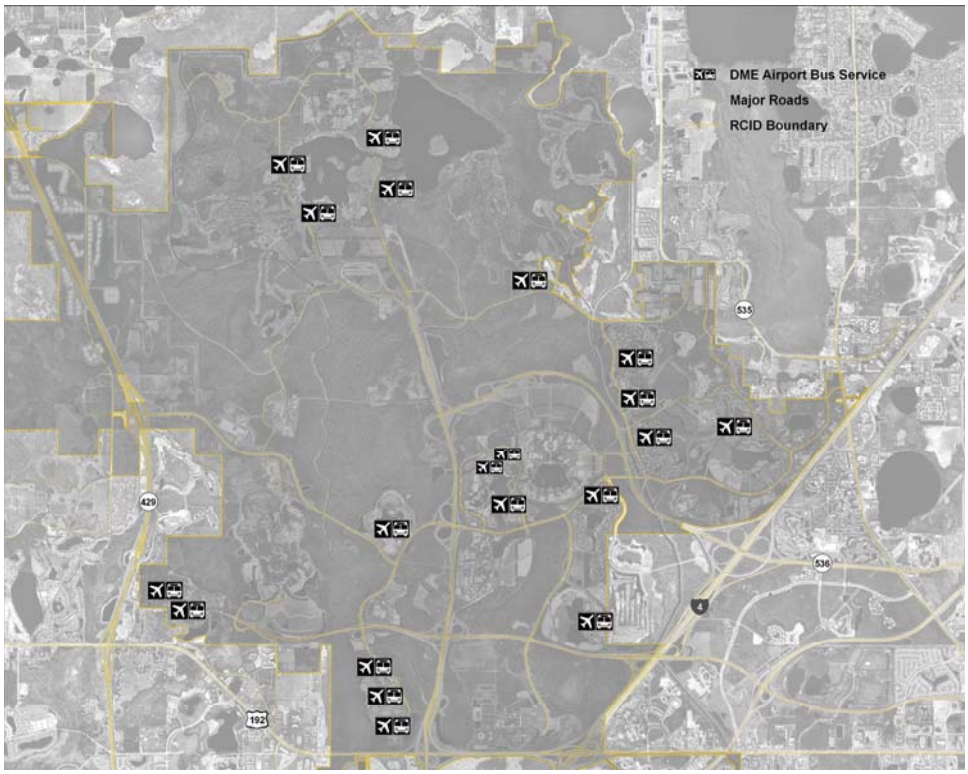
Data from the American Public Transportation Association's January 2009 discussion paper *Changing the Way America Moves: Creating a More Robust Economy, a Smaller Carbon Footprint, and Energy Independence,* indicates that transportation accounts for 68 percent of the oil consumed in the United States and 33 percent of all carbon emissions; that from 1997 to 2007vehicle miles traveled (VMT) by car and light truck increased 168 percent compared to a 48 percent increase in population, and that only about 53 percent of American households currently have access to public transportation options. The extensive transit service options available to persons traveling within and to and from the District reduce overall greenhouse gas emissions without reducing their mobility options. The challenge going forward will be to increase an already robust ridership during the 2015/2020 planning timeframes to get even more guests and employees out of personal vehicles. Virtually every major trip generator and attractor is served by transit as illustrated by the maps and summary of ridership and type of service presented below.

Lynx Bus Service

Lynx maintains ten routes with 22 stops. Three routes provide daily 30 minute service for 18 hours. Seven routes are customized to work schedules within the District. There are currently 5,000 daily riders and 1.3 million annual riders. Riders are primarily employees.

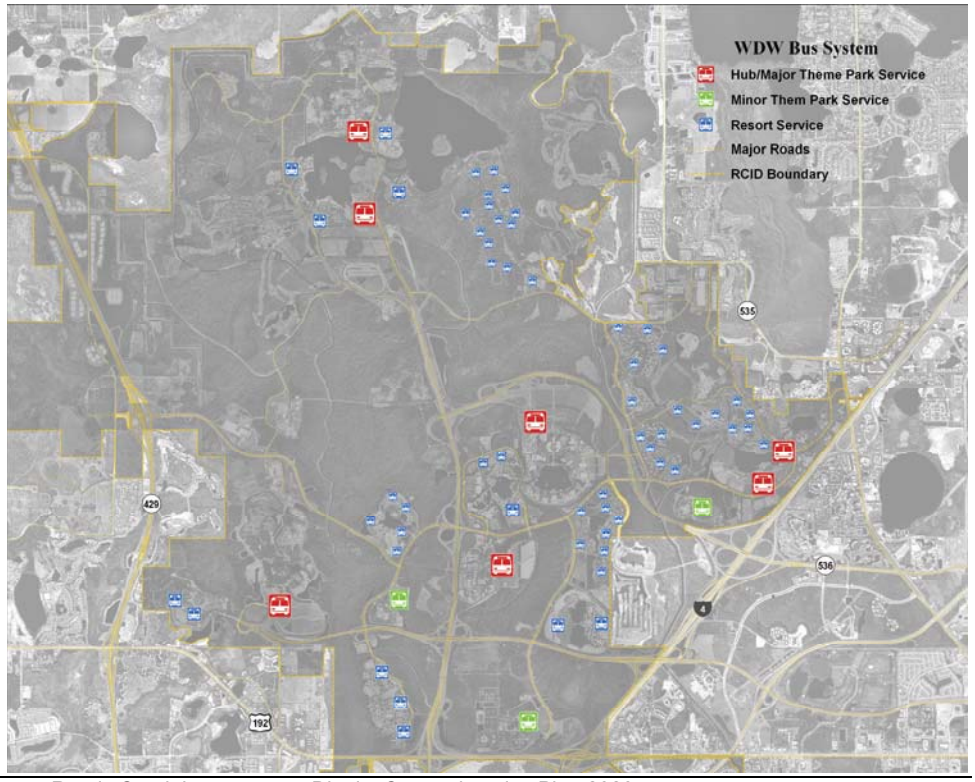


DME – Airport to District Bus Service



DME is a private bus system that picks up tourists at Orlando International Airport (OIA) and drops them off directly at various hotels within the District. Their luggage typically follows in about an hour. Although OIA experienced a seven percent drop in domestic passengers flowing through the airport during 2009, the total number of passengers riding DME increased one percent to 2.2 million . On average DME transports about 6,000 people daily or about seven percent of OIA's 30.7 million domestic passengers during 2009._DME operates 38 buses and makes about 300 daily trips.

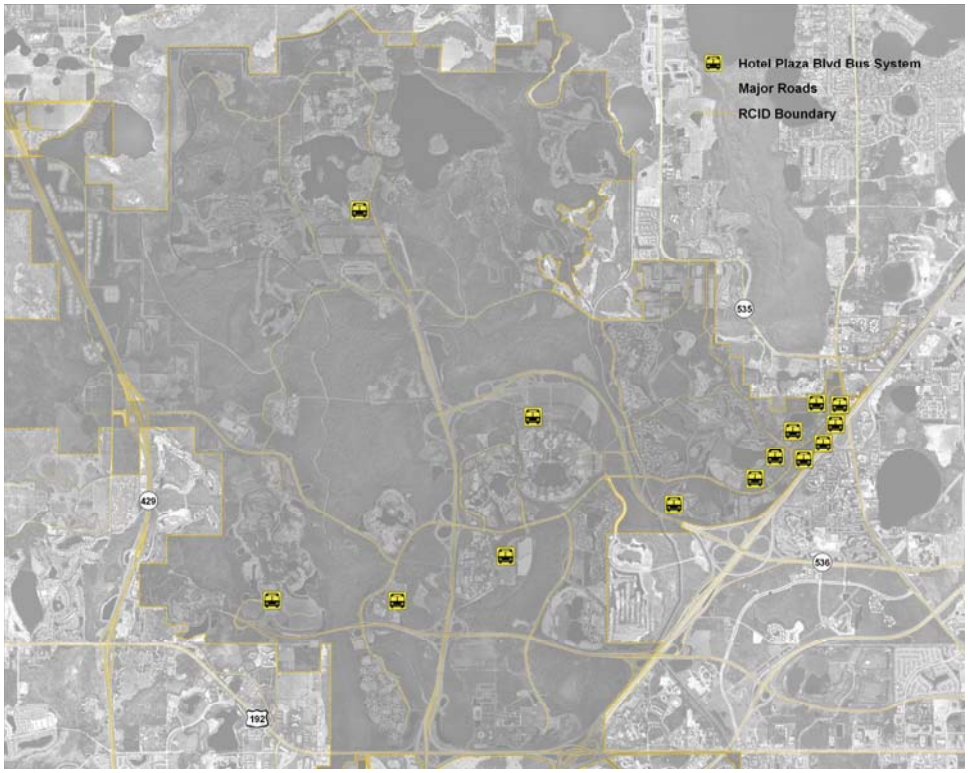
Walt Disney World (WDW) Bus Service



WDW operates 291 buses that provide service to all major and minor theme parks, 20 resorts, and the Downtown Disney commercial district. There are 11 fixed guest routes and 4 fixed cast routes; all other routes vary depending on demand. During 2009 there were approximately 165,000 daily riders. The system maintains a 20 minute service standard.

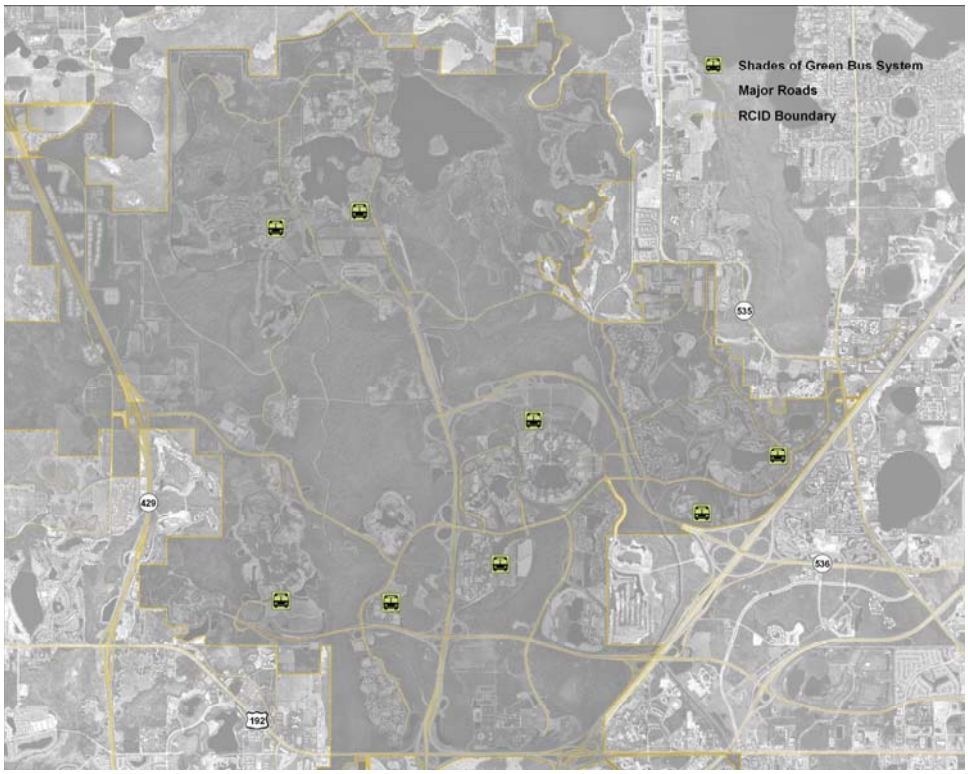
Hotel Plaza Blvd. Bus Service

The Hotel Plaza Blvd. Hotel Association operates a bus system that provides 30 minute service from their hotels to the four major theme parks, 30 minute service to the Downtown Disney commercial district, and two trips per day to the two water parks. The size of the fleet varies with demand.



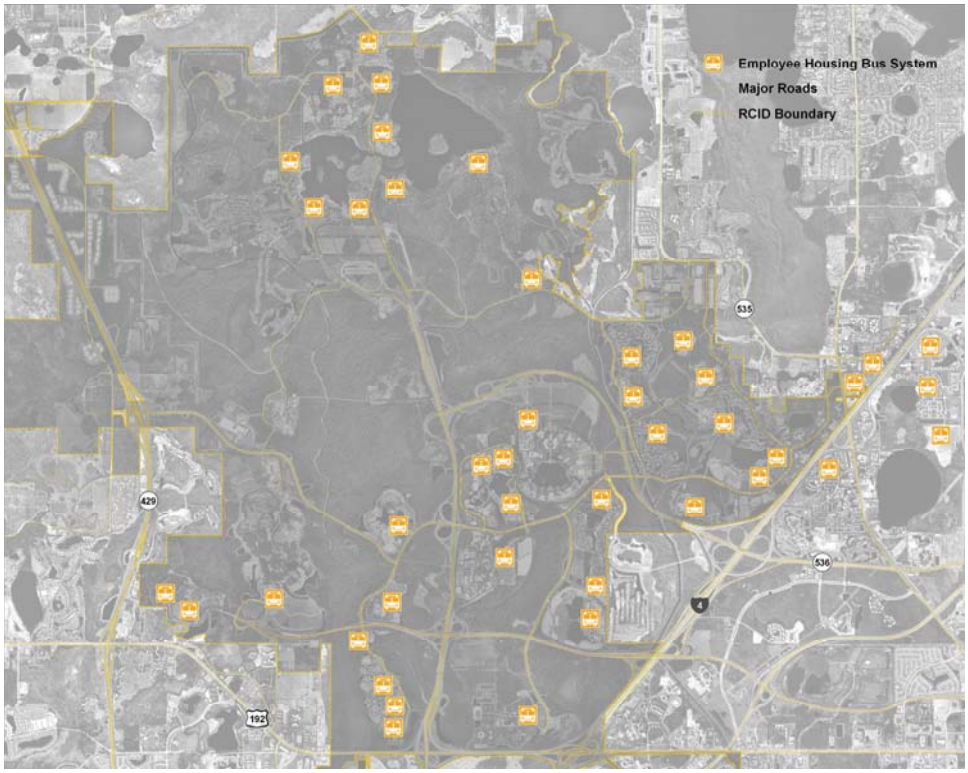
Shade of Green Bus Service

The Shades of Green military resort operates four buses and serves about 1,600 daily riders. Service is provided to the Ticket and Transportation Center (TTC) from which transit services are then available to the Magic Kingdom and Epcot theme parks as well as to the other two major theme parks, the two water parks, and the Downtown Disney commercial district.



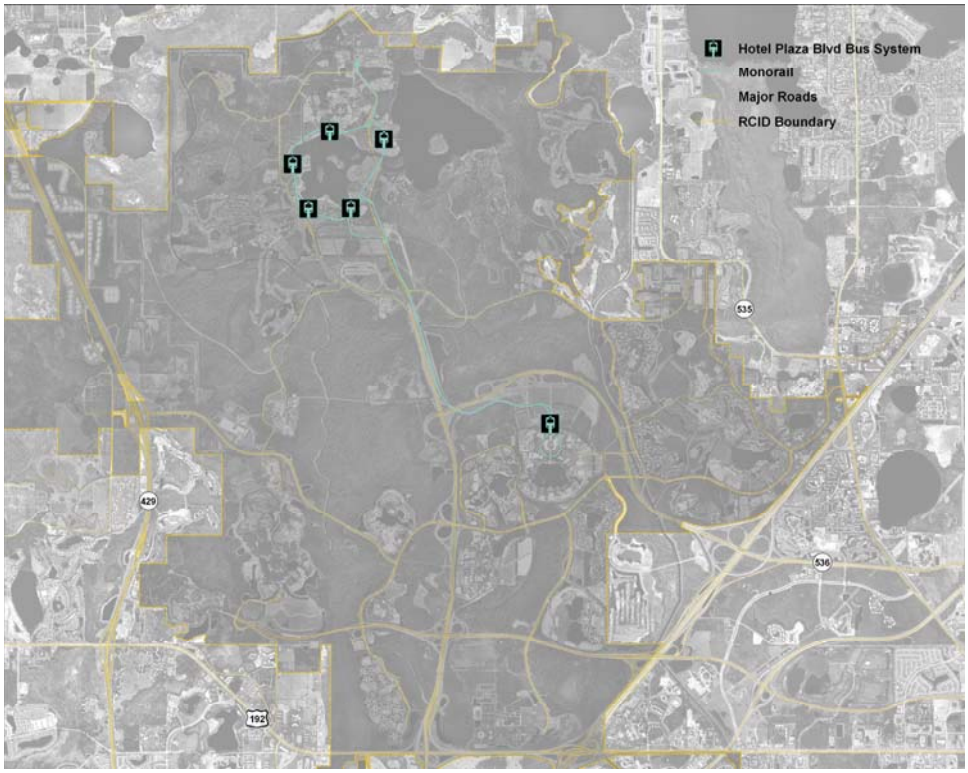
E Employee Housing (College Program) Bus Service

Bus service is provided for employee (college student) housing located just south and east of the District. The service consists of 25 routes and 30 stops and serves 16,000 daily riders.



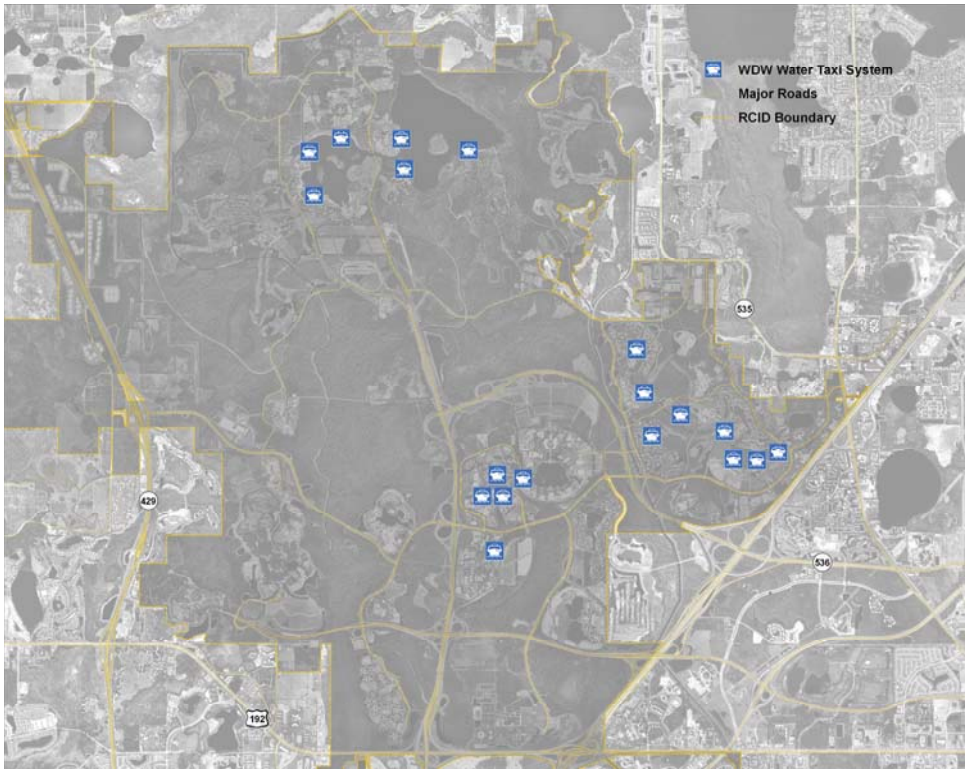
Monorail Service

The monorail system consist of 11 trains; each train has a capacity of 312 passengers. The 14.7 miles of monorail beams carry passengers on three lines with service to the Magic Kingdom from the TTC; service between Epcot and the TTC, and service between the TTC, the Magic Kingdom, and three of the Magic Kingdom area resorts. The monorail system carries an average of 50,000 daily riders.



Watercraft Service

The WDW Watercraft system includes 36 boats and 17 docks that provide service between the TTC and the Magic Kingdom, the Magic Kingdom area resorts, the Epcot area theme parks and resorts, and select Downtown Disney area resorts and the Downtown Disney commercial district. Ridership is estimated at 8,000 daily.



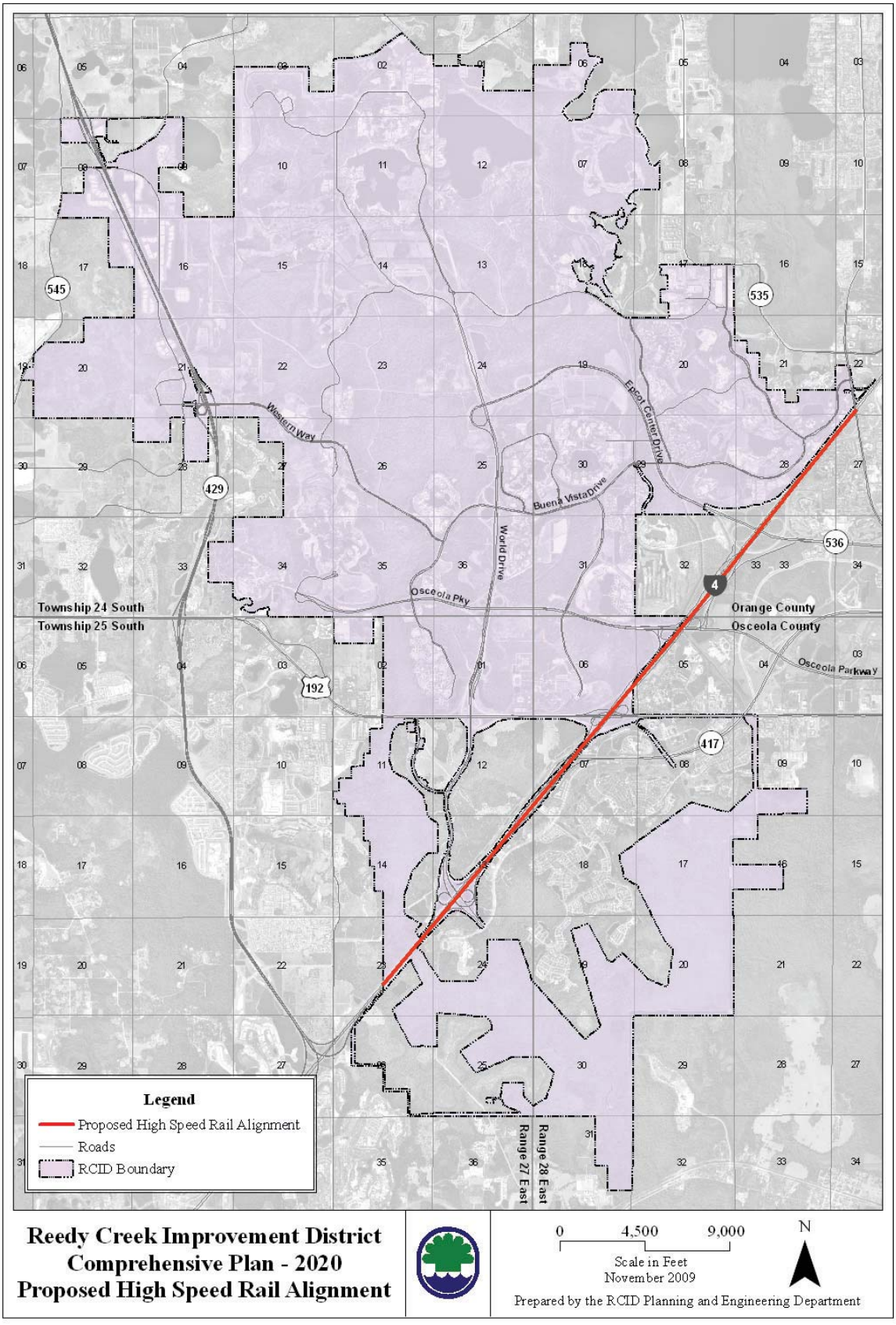
The Lynx, DME, and Employee Housing bus systems provide transit service both within and outside District boundaries; all other transit systems serve guests and to a much lesser extent employees exclusively within District boundaries. The advent of high speed rail, commuter rail, and bus rapid transit afford the opportunity to significantly expand transit service to the District, thus contributing to the potential reduction in VMT and greenhouse gas emissions both outside and within the District.

High Speed Rail

The Florida Department of Transportation (FDOT) has been granted $1.25 billion by the U.S. Department of Transportation to partially fund a $2.6 billion high speed rail system between Orlando and Tampa. The high speed rail line is to be constructed within the Interstate 4 corridor (Figure 3-18) which passes through the District. The District's major landowner has been approached by FDOT and is in discussions concerning the donation of up to 50 acres of land to FDOT for construction of a high speed rail station. The exact location of the station has not yet been determined. One possible site is located within the District and will require an expansion of existing bus services to meet the needs of high speed rail passengers.

High speed rail is a vital addition to the various modes of transportation currently available within and to the District. The Walt Disney World Station will serve passengers traveling from OIA to the District, passengers traveling from Tampa to the District, passengers traveling to and from the Orange County Convention Center, and passengers simply passing through the District making use of the station to board the train to its assortment of destinations.

Figure 3-18: Proposed High Speed Rail Alignment



Commuter Rail

The extension of commuter rail to the District should be a consideration in the future. The District is the site of Central Florida's largest single employer. Expansion of commuter rail to the District could also provide a much needed link between commuter rail and high speed rail, thereby benefiting both tourists and the residents of Central Florida.

Bus Rapid Transit

Segments of the 192 corridor within the District are currently operating overcapacity. These segments have been fully developed as complete streets, so it is unlikely that additional lanes will be added to increase capacity. Segments of Buena Vista Drive are also approaching capacity. Bus rapid transit (BRT) is an alternative the District should explore as certain roadway segments become increasingly congested and buses end up struck in traffic. BRT may also prove to be the mode for linking commuter rail and high speed rail.

Ultimately the success of these three modes of transportation will depend on the convenience of the transit services available once passengers disembark at the various stations. Coordination between the various service providers—RCID, Private Bus Services, Lynx, FDOT, Osceola County, and Orange County—will be important.

Reedy Creek Improvement District
Comprehensive Plan

HOUSING ELEMENT

Part A: Policies

INTRODUCTION

The RCID Housing Element addresses the need for suitable housing both within the District and beyond District boundaries. Because the RCID is a major regional employment center, the element's focus is on the housing needs of persons employed within District boundaries rather than its small population of permanent residents. The element analyzes existing and future employee housing needs, evaluates housing market conditions around the District, and identifies any potential gaps between supply and demand. Specific programs to close the gaps, including quantifiable targets for housing production and assistance in the District vicinity, are presented. The element has two major components: the "Policies" component contains the goals, objectives, and policies which will guide the District's housing program during the coming years; and the "Supporting Data and Analysis" component includes an assessment of housing needs for residents and employees.

GOALS, OBJECTIVES, AND POLICIES

GOAL A

It is the goal of the Reedy Creek Improvement District to facilitate the provision of an adequate and affordable supply of housing that accommodates all current and future permanent residents of the District.

Objective 1

To maintain the structural integrity and aesthetic quality of existing residential areas, conserve existing affordable housing within its boundaries, and facilitate the development of new affordable housing (including manufactured and mobile homes) as needed to accommodate the District's existing and projected permanent resident population.

Policy 1.1: The District shall ensure that the permanent residential areas in the cities of Bay Lake and Lake Buena Vista are maintained in excellent condition. The District will promptly respond to any problems associated with structural deficiencies or visual blight in these areas.

Policy 1.2: In the event that future development would result in the displacement of either of the existing permanent residential areas, the District shall adopt a resident relocation plan prior to project approval.

Policy 1.3: The RCID shall ensure that vacant land is made available on the Future Land Use Map to accommodate the development of affordable housing for the projected permanent resident population.

Objective 2

To ensure that RCID planning, development, and building regulations allow the private sector to construct housing, including group homes, foster care facilities, manufactured homes, and mobile homes, within District boundaries.

Policy 2.1: Housing, including group homes, foster care facilities, manufactured homes, and mobile homes, shall be permitted land uses in all areas designated for mixed use development.

Policy 2.2: In the event that new permanent residential development is proposed within designated Mixed Use areas, the District shall adopt performance standards which ensure that such development is buffered or appropriately separated from potentially incompatible adjoining uses also permitted in these areas. These standards shall be adopted prior to the approval of such development.

Policy 2.3: Any new housing in the RCID shall continue to be available to all persons, regardless of race, religion, sex, marital status, ancestry, national origin, physical disability, or color.

Policy 2.4: Any new housing within the RCID shall be located close to employment centers and shall have infrastructure existing or committed at the time of development.

GOAL B

Recognizing the District's historic and projected role as a major regional employment center, it is the goal of the Reedy Creek Improvement District, to the extent required by Chapter 163 Part II, F.S., to facilitate the provision of an adequate supply of affordable housing for any unmet affordable housing need generated by employment growth within the District.

Objective 3

To identify a specific geographic area extending beyond District boundaries within which the District will facilitate the creation of affordable housing opportunities.

Policy 3.1: Because no increase in the District's permanent resident population is projected through 2020 and because increases in employment within the District are projected, the focus of the District's housing programs shall be on facilitating affordable housing production for persons employed within District boundaries.

Policy 3.2: The District's affordable housing programs will be directed within the previously identified geographic area known the Housing Target Zone (HTZ). The HTZ has been defined with the objective of:

(1) including all land within a 30-minute commute radius of District employment centers; and

(2) following census tract boundaries to facilitate the collection and updating of demographic and housing supply data.

Current HTZ boundaries are shown in Figures 4-1 and 4-2. Within the HTZ, the District shall place particular emphasis on projects that are close to District employment centers.

Policy 3.3: The District shall update the boundaries of the HTZ as needed but not less than every ten years to reflect changes in travel time, changes in census tract boundaries, and other relevant factors, such as accessibility and the incremental cost of transportation relative to distance.

Policy 3.4: The RCID's activities with regard to housing in the HTZ shall be particularly targeted to "low" and "very low" income households as defined in Chapter 420 F.S., for the Orlando MSA.

Objective 4

To implement an affordable housing program within the HTZ that facilitates access to affordable housing for persons employed within the District.

Policy 4.1: The District shall update its most recent Affordable Housing Study upon the release of Year 2010 Census tract-level data for Metropolitan Orlando and again in 2017. The analysis shall be based on the currently approved East Central Florida Regional Planning Council Affordable Housing Methodology, and at minimum shall include the following components:

(1) A profile of existing RCID employee housing locations by zip code;

(2) An updated five-year projection of future employment within the District, a projection of five-year housing needs by income category, an updated housing supply data base, and a comparison of these needs to total housing needs in the HTZ;

(3) An updated assessment of housing supply in the HTZ during the five-year period and an estimate of unmet needs attributable to employment growth within the District

(4) An updated determination of any "credits" for past housing production by the District or its major landowners; and

(5) Updated mitigation measures for closing the gap between demand and supply, if such a gap is determined to exist.

Policy 4.2: Following the update of the Affordable Housing Study following the 2010 Census, the District shall update the housing supply data base in 2014. The District shall ensure that information regarding available affordable housing supply within the Housing Target Zone is made available to those working within the RCID following completion of each Affordable Housing Study and update of the housing supply data base. This material will be distributed at major employment centers within the District.

Policy 4.3: If future updates of the Affordable Housing Study or housing supply data base determine that new or additional implementation activities and measures are needed, then the RCID

Comprehensive Plan shall be amended within 180 days. If two plan amendments have already been adopted in the current year, the amendment will be adopted within 90 days after the beginning of the new year. The amendment will incorporate additional activities and measures which the RCID determines to be appropriate.

Policy 4.4: Projects outside RCID boundaries which do not meet the affordability criteria described above may receive water or sewer capacity from the RCID through interlocal agreements. In such instances, the developers of such projects shall be required to pass along savings resulting from the District's provision of these services in the form of more affordable sale and rental prices or other public or community amenities.

Policy 4.5: The District shall work with public transit providers to increase the availability of public transportation between the District and affordable housing projects or areas. As appropriate, the District shall also work with the major landowners and private transportation companies to consider the feasibility of private transit services (including shuttle buses, vans, etc.) between affordable housing and District employment centers.

Policy 4.6: The RCID will consider modifications to its stormwater permit fees (for example, allowing such fees to be paid in interest-free installments over five years) as a means of reducing front-end developer costs for affordable housing projects in the Reedy Creek drainage basin.

Policy 4.7: To the extent feasible, the District will ensure that rental units created through affordable housing programs sponsored by the District or its major landowners meet the Housing Finance Agency requirements to remain affordable for a specified period of time.

Policy 4.8: All hearings or public meetings conducted by the RCID regarding housing shall continue to be publicly noticed.

Objective 5

To work collaboratively with the primary employers within its boundaries to ensure that affordable housing opportunities are provided to local employees.

Policy 5.1: The RCID will work with the District's primary employer to establish a Housing Information component in their recruitment and/ or employment processes.

Policy 5.2: The RCID will encourage the District's primary employer to continue to develop housing for its employees, similar to its current Vista Way, Chatham Square, and The Commons programs (currently housing some 5,452 employees in multi-family apartments developed and operated by the employer).

Policy 5.3: The RCID will encourage the District's primary employer to pursue a range of strategies to facilitate the production of rental and for-sale housing within the HTZ. These strategies should be structured to offset any unmet affordable housing need generated by employment growth within the District as determined by each future update of the District's Affordable Housing Study. Among the strategies to be considered are:

(1) Investments in federal low income housing tax credit (LIHTC) programs, particularly where such investments enable new rental housing units to meet HUD affordability criteria for "very low" income employee households. The designated units should be selected so that they match the housing needs identified by household size to accommodate any potential market mismatches.

(2) Silent second mortgages for "low" and "very low" income employee households. Through this program, the primary employer would make second mortgage loans and defer repayment until the units are resold. Implementation of this program will require setting an upper limit on the purchase price of the unit, and could be implemented at particular projects selected to encourage short commutes (such as the Southlake project) or could be made available for use throughout the HTZ.

(3) Mortgage interest rate subsidies for "low" and "very low" income employee households. This would also require setting an upper limit on the purchase price of the unit and could be targeted to specific units or made available for use throughout the HTZ.

Policy 5.4: The District and/ or primary employer within the District will be granted credit for providing affordable housing units in the HTZ even if the units are built before an unmet need for affordable housing is determined to exist. Credit for 100 percent of the units will be awarded, provided that 50 percent or more of the units are targeted to "low" and "very low" income households in the Orlando MSA and the remainder of the units are targeted to moderate income households.

Policy 5.5: The following additional activities may be employed by the RCID and primary employer to achieve the objective of providing additional affordable housing units, provided that the activity or combination of activities has the benefit of reducing the costs of the unit by at least 5 percent:

(1) Acquisition and donation of land for affordable housing development within the HTZ.

(2) Affordable housing construction outside of the District but within the HTZ, which is provided with assistance by RCID or an employer within RCID.

(3) Direct rental assistance provided by RCID~~,~~ or employers within RCID~~,~~ to "low" and "very low" income households.

(4) Participation in community service projects such as Habitat for Humanity.

(5) Technical assistance to nonprofit organizations involved in the provision of affordable housing or housing services within the HTZ.

(6) Down payment assistance to persons employed within the RCID.

(7) Transportation assistance between affordable housing projects and employment locations within the RCID.

(8) Any other activities identified in this element or developed in the future relating to the provision of affordable housing units within the HTZ.

Policy 5.6: The RCID will encourage employers within its boundaries to provide job training and other programs creating economic opportunities for “low” and “very low” income persons. By providing a stable and reliable income source, such programs can assist “low” and “very low” income households in obtaining adequate housing.

Policy 5.7: The RCID will encourage the continued participation of the primary employer in the Second Harvest Food Bank program, providing food for “very low” income households and thereby providing greater disposable income for shelter and other needs.

Policy 5.8: The District shall encourage lessees, tenants, and third party employers not directly affiliated with the primary employer to participate in RCID housing programs.

Objective 6

To maximize the effectiveness of District housing programs by coordinating and collaborating with adjacent jurisdictions and other public agencies.

Policy 6.1: The District shall continue to work with the East Central Florida Regional Planning Council (ECFRPC) in its ongoing efforts to assess affordable housing needs and develop solutions to meeting unmet needs. The District shall actively seek representation on any ECFRPC task force created to address the issue of affordable housing.

Policy 6.2: The District shall work cooperatively with adjacent local governments to facilitate the production of affordable housing and assure that a sufficient supply of land to meet affordable housing needs is retained within the HTZ. Interlocal agreements with Orange County shall be developed as necessary and appropriate to create affordable housing opportunities within the Horizons West area to the north and northeast of District boundaries.

Policy 6.3: Interlocal agreements governing any future deannexation of land from the District into the adjacent counties shall address the issue of affordable housing. The receiving county will be encouraged to explore affordable housing opportunities within the area being deannexed.

Policy 6.4: The District shall support efforts to partner with Orange, Osceola, Lake, and Polk counties, and other jurisdictions as appropriate, to develop performance standards, policies, and developer incentives to encourage/ facilitate development of innovative communities and affordable housing. The District shall also support public/private partnerships between developers and local governments, including the District’s major landowners and nearby local governments, to produce affordable housing.

Policy 6.5: To the extent feasible and appropriate, future affordable housing activities of the District and its primary employer shall be integrated with State and County programs, such as the SAIL (State Apartment Incentive Loan) program, SHIP (State Housing Initiative Partnership) program, and HOME (Home Investment Partnership) program. Although the District is ineligible to receive such funds directly, they may assist nonprofit developers who receive

these funds, thereby further improving the affordability of housing.

Reedy Creek Improvement District
Comprehensive Plan

HOUSING ELEMENT

Part B: Supporting Data and Analysis

PURPOSE

The purpose of a Housing Element is to set forth the goals, objectives, and policies a community will follow to ensure that its current and future residents are provided with adequate housing. This does not present a significant challenge within the Reedy Creek Improvement District because the existing population is very small and no growth is anticipated. However, since the District includes a major employment center, this element focuses on the affordable housing needs of persons *employed* within District boundaries. The District's activities with regard to affordable housing are primarily targeted to "low" and "very low" income households, as defined in Chapter 420 F.S., for the Orlando Metropolitan Statistical Area (MSA).

The Housing Element includes a discussion of existing housing and projected housing needs for the residents of Bay Lake and Lake Buena Vista. It continues with a discussion of employee-generated housing needs, presenting the findings of a 2008 Affordable Housing Study which assessed projected employment growth, affordable housing supply, and any unmet needs for affordable renter- and owner-occupied housing.

Goals, objectives, and policies are included in the preceding part of the Housing Element.

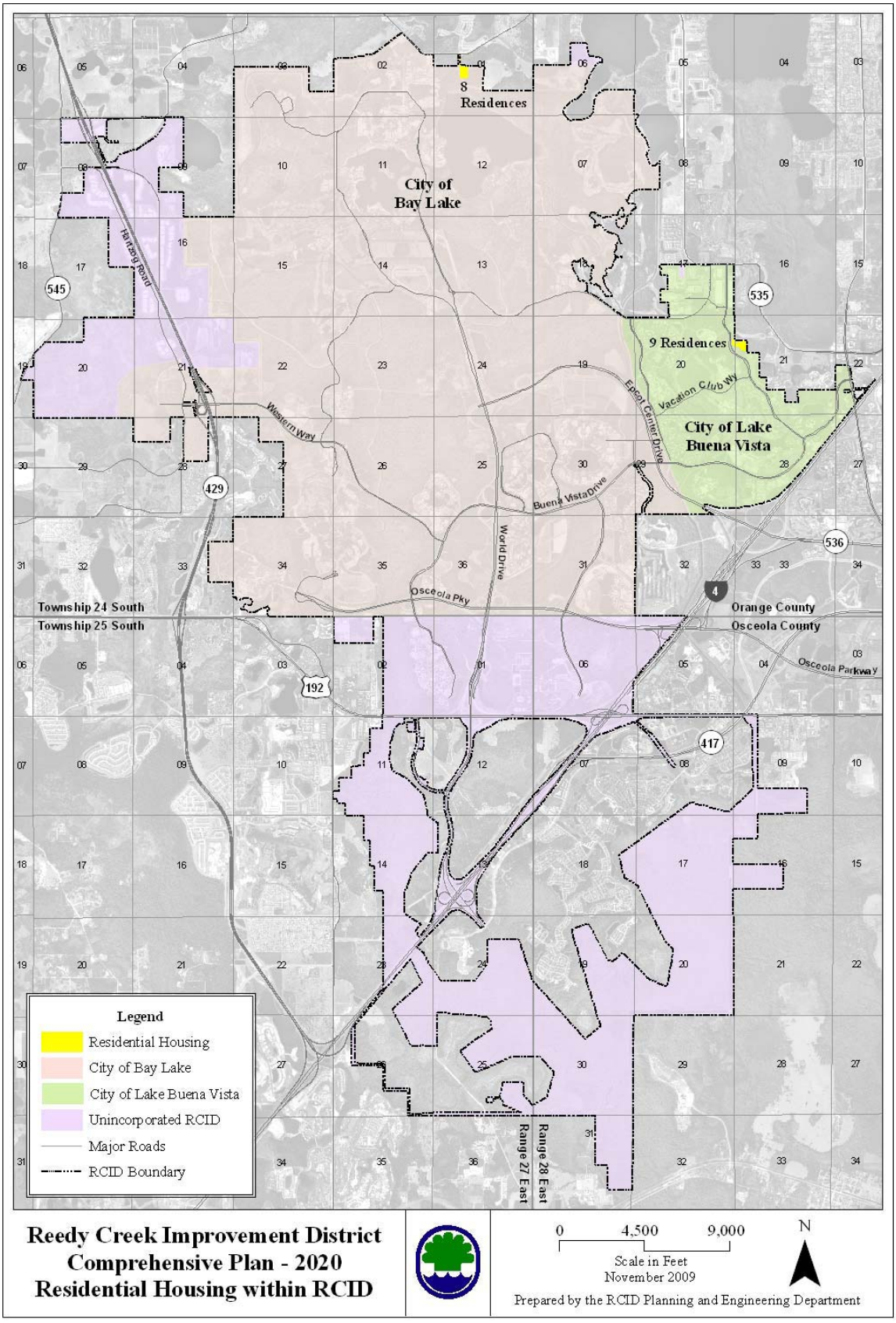
HOUSING PROFILE OF THE DISTRICT

PERMANENT HOUSING

In 2009, the RCID had a permanent population of 43 residents living in 17 manufactured homes. The supply of housing in the District is sufficient to meet the needs of these residents. The homes are in two licensed mobile home parks, one in Lake Buena Vista off of Buena Vista Drive, and the other in Bay Lake. The Lake Buena Vista complex has 9 units and a permitted capacity of 9 units. The Bay Lake complex has 8 units and a permitted capacity of 12 units. Housing costs for these residents fall within state guidelines for affordability, i.e., expenses for housing of no greater than 30 percent of gross monthly income.

Figure 4-1 shows the location of all permanent housing units in the District. There are no other housing types within District boundaries. Although group homes and foster care facilities are permitted in all Mixed Use areas, these housing types do not currently exist. All housing within the District has complete plumbing, central heating, complete kitchens, and air conditioning. There are no publicly subsidized units, nor are there any homes listed on the Florida Master Site File, the National Register of Historic Places, or local historic inventories.

Figure 4-1: Residential Housing within RCID



TOURIST HOUSING

There are three types of transient housing for visitors to the District: hotel rooms; interval ownership units; and campsites. Table 4-1 includes a breakdown of these units and the average daily population by unit type. Tourist housing types are described below.

Table 4-1: Permanent and Transient Housing Within the RCID

Type	Units	Average Population
Permanent Housing	17	43
Transient Housing		
Hotel Rooms	*28,267*	*90,433*
Interval Ownership	*3,792*	*16,016*
Campsites	*1,208*	*3,992*
Total Transient	27,088	110,441

Note:
Population for transient housing is based on average guests and occupancy rates per housing type.

Hotel Rooms

There are currently 25 operating hotels with 27,943 rooms; one hotel with 324 rooms is undergoing extensive renovation and is projected to reopen in early 2010 which will bring the total operating hotels to 26 with 28,267 rooms.

Most of the hotel rooms have one bedroom / one bathroom floor plans; multiple room suites are also available in all deluxe and moderate hotels and in one of the value hotels.

Interval Ownership Units

There are 3,792 interval ownership units within the District. These are typically suites that include kitchens and living areas.

Campgrounds

There are 799 campsites for RV and tent campers and 409 cabins at Fort Wilderness. The campground visitor amenities include comfort stations with toilets, showers and laundry facilities for tent and RV campers. The cabins include kitchens and living areas.

EMPLOYMENT-GENERATED HOUSING NEEDS

Since the adoption of the 1991 Comprehensive Plan, the District's Housing Element has focused on the housing needs of persons employed within RCID boundaries. Although the District has only 43 residents, it has an employment base of about 60,000 workers. These employees represent a broad range of incomes

and household types. The District's adopted policies and programs strive to encourage an adequate supply of affordable housing for employees and their households. Historically, this has included measures to assist employees in finding suitable housing, and encouraging measures to support the development of affordable housing within the vicinity of the District.

The District's affordable housing efforts are focused within a "Housing Target Zone" (HTZ) that encompasses most of the southwest quadrant of greater Orlando. The purpose of the HTZ is to recognize the distribution pattern of employee residences and concentrate affordable housing programs within that area. In essence, the HTZ is the "commuter-shed" for the District. Although some employees live beyond this zone, the HTZ has been mapped to provide all employees with an opportunity for affordable housing within a reasonable commute of District employment centers.

The District completed an Affordable Housing Study in 1996 to fulfill the requirements of a 1992 Compliance Agreement between the District and the Florida Department of Community Affairs. The purposes of the Study were:

- To refine the boundaries of the HTZ in a manner that permitted easy monitoring.
- To assess unmet affordable housing needs arising from employment growth during the 1990-1995 and 1995-2000 periods.
- To suggest appropriate mitigation measures to serve any unmet needs for "low" and "very low" income workers for the 1995-2000 period.

Since the completion of the 1996 Affordable Housing Study the District has updated the study three times: in 1998, 2005, and 2008.

SUMMARY OF THE 2008 AFFORDABLE HOUSING STUDY

Purpose and Approach

The 2008 Affordable Housing Study had three major tasks:

- Analyze and update the HTZ geography,
- Analyze and project the demand for affordable housing generated by employment growth within the RCID, and
- Analyze and project the supply of affordable housing within the HTZ for the 2009-2013 planning period to determine if adequate affordable housing supply will exist to accommodate the future demand for affordable housing that will be generated by employment growth in the RCID.

The analysis was based on the currently approved East Central Florida Regional Planning Council (ECFRPC) Affordable Housing Methodology which was adopted in 1999 and which currently serves as the guiding methodology for all Development of Regional Impact applications across the State of Florida. The methodology also includes updates developed in conjunction with the ECFRPC during 2005-2008 and is consistent with other housing analyses recently reviewed and approved by ECFRPC.

First the HTZ was updated based on the housing location patterns of the existing employees of the RCID. Next the historical employment growth within the RCID was analyzed to project the annual employment growth within the District for the 2009-2013 planning period. The annual employment growth was then converted into demand for affordable housing utilizing models created by the ECFRPC. The overall demand for affordable housing that will arise out of the normal growth patterns within the HTZ was also projected.

The supply of affordable housing was then analyzed for three categories: (1) for-sale, (2) apartment for-rent, and (3) private for-rent. To estimate the supply of for-sale housing, the volume of sales transactions within the HTZ as shown in the property appraisers' databases of the four counties included within the HTZ was analyzed for 2007 and used to represent for the average supply available on an annual basis over the five-year planning period. To estimate the for-rent housing, data provided by Charles Wayne Consulting was utilized to determine the supply of commercial apartment units within the HTZ. Vacancy rates and rental rates were analyzed to arrive at the total volume of vacant units that can be expected to accommodate for-rent demand on an annual basis on an annual basis. The volume of private residences that are in the rental market was estimated utilizing U.S. Census, University of Florida Bureau of Economic and Business Research (BEBR), and Consumer Price Index (CPI) data to estimate vacant supply within the HTZ

Lastly, the supply of affordable housing available on an annual basis was compared to the demand for affordable housing generated annually by the RCID and the overall market within the HTZ to determine if the HTZ has sufficient supply to accommodate all of the future demand.

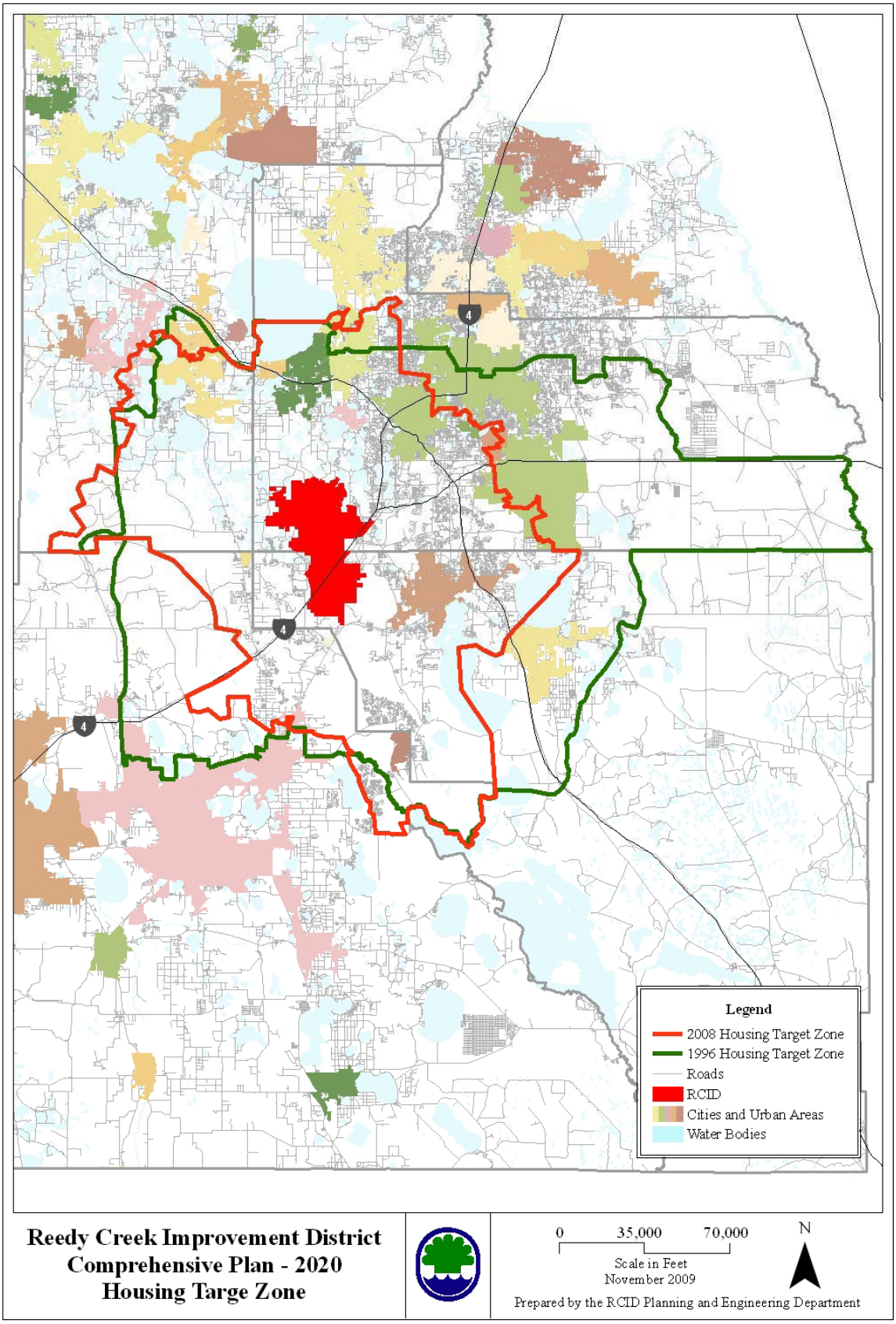
Housing Target Zone

The HTZ outlines the trade area within which the supply of affordable housing is inventoried. The HTZ represents the geographic boundary within which a new employee should expect to be able to find cost appropriate housing. The 2008 HTZ boundary was updated based on the housing profile of existing RCID employees which deviates from the ECFRPC affordable housing methodology which defines an appropriate HTZ boundary as the lesser of a 10-mile/20-minute drive time surrounding a site.

A geographical profile based on a breakdown of existing RCID employee housing by zip codes was generated which shows a large number of zip codes beyond the 10-mile/20-minute boundary that contain greater than 1,000 RCID employees. It appears reasonable to conclude that not all housing requirements and alternatives for RCID employees can be met within the 10-mile/20-minute boundary. Due to the sheer magnitude of employment within the RCID, the reliability of using the existing housing patterns to determine the appropriate HTZ boundary is very high. The existing housing patterns of RCID employees also takes into account the realistic transportation issues impacting the commutes of RCID employees. Over time it is natural for the existing employees to migrate to locations with more efficient access to the RCID and locations that are economically sufficient given the commuting cost / salary trade-off.

In defining the updated 2008 HTZ boundary only zip codes containing more than 967 employees were included. These zip codes represent the areas where a large enough number of employees are concentrated to conclude that these zip codes represent locations where the commuting / housing costs to salary trade-off is in equilibrium for RCID employees. The update 2008 HTZ boundary is shown in Figure 2-2.

Figure 4-2: 2008 Housing Target Zone



Housing Target Zone Demographic Profile

A detailed analysis of the demographics of the updated 2008 HTZ and the greater Orlando Metropolitan Statistical Area (MSA) was prepared and can be found in Appendix C – Reedy Creek Improvement District – Affordable Housing Study October 31, 2008. A summary is presented below.

Population, Gender, and Race – The HTZ boundary contains a population of just over 725,000 with roughly 266,000 households and an average number of persons per household of 2.73. In comparison the MSA has a population of over 2 million with almost 811,000 households and an average number of persons per household of 2.59. The split between males and females is more or less equivalent in each area at 50 percent male to 50 percent female. The race breakdown is also comparable for except for Hispanics which make up 31 percent of the population in the HTZ compared to 22 percent in the MSA.

Age – The median age of the residents within the MSA (37) is slightly higher than that of the HTZ (35). The overall distribution of residents by age bracket is almost identical for both areas with 35 percent under 25, 44 percent between 25 and 54, and 21 percent 55 and older.

Household Income – The median household income in the HTZ is 11 percent higher than in the MSA—$57,700 compared to $56, 200. The average household income of the HTZ is estimated to be just under $67,000 compared to just under $61,000 for the MSA. The income distribution by household is very comparable with over 50 percent making greater than $50,000 and 30 percent making less than $35,000.

Education – The overall distribution of education is both areas is very similar with nearly 24 percent having at least a bachelor's degree and less than 20 percent having no high school diploma.

Housing Units, Tenure, and Status – The HTZ contains about 303,000 housing units of which just over 265,000 occupied. In contrast, the MSA contains 923,000 housing units with 811,000 occupied. The occupancy rate for both is 88 percent. Within the HTZ, 64 percent of the housing units are owner occupied compared to 67 percent within the MSA.

Housing Year – On average, housing units within the HTZ are newer than those located within the MSA. Roughly 34 percent of all homes in the HTZ were built after 2000, while only 27 percent of homes build within the MSA were build after 2000.

Units in Structure – The breakdown of number of units in structure is nearly identical between the HTZ and the MSA. In both cases, 60 percent of the units are single family detached. In both the HTZ and the MSA, seven percent of housing units are located within structures containing 20 or more units.

Number of Bedrooms – Within both the HTZ and the MSA 66 percent of housing units contain 2 or 3 bedrooms. Housing units contain one bedroom are also identical in both areas at 10 percent.

Means of Transportation – The transportation base for the HTZ is 358,296 workers or 49 percent of the population. Of this group, 80 percent drive alone to their workplace and 14 percent carpool. Only two percent of working within the HTZ utilize public transportation and one percent either walk or bike to work. The MSA contains 1.15 million workers of which 81 percent drive alone to work and 12 percent carpool. As with the HTZ, only two percent of worker in the MSA utilize public transportation and two percent walk or bike to work.

Travel Time to Work – Within the HTZ, seven percent of workers travel less than 10 minutes to their place of

employment, while 26 percent travel between 10 and 19 minutes. Approximately 52 percent of workers in the HTZ travel between 20 and 44 minutes to work and only five percent travel more than one hour. The average travel times are comparable within the MSA.

RCID Affordable Housing Demand

Based on historical employment growth, the RCID is projected to add 1,105 new employees annually during the next five years. (In light of the current recession it should be noted that employment within the RCID has declined during 2009 and will most likely not increase during 2010.) Costar, an online comprehensive commercial real estate database, was used to distribute employees within the RCID by industry. ES-202 wage data provided by the Florida Agency of Workforce Innovation was used to assign an average wage to each employee category. Regional specific household headship rates and single versus multi worker household rates by income level were utilized to translate the annual employee growth into an annual demand for affordable housing by household income.

Affordable housing impact are evaluated based on the net demand for affordable housing created within three income categories: (1) very low, (2) low, and (3) moderate. The three income categories are based on multiples of the median household income for the Orlando MSA published by the U.S. Department of Housing and Urban Development (HUD). This figure is currently $59,000. Households in the very low income category are defined as having incomes of less than 50 percent of the median income or $29,500 or less. Households in the low category have incomes of between 50 and 80 percent of the median income or between $29,500 and $47,200. Households in the moderate income category have incomes of between 80 and 120 percent of the median income or between $47,200 and 70,800.

The ECFRPC produces an affordable housing model which contains all of the formulas and rates necessary to translate employee generation into affordable housing demand. This model was used for each of the 27 employee categories, and then the affordable housing totals were used to arrive at a total demand by income category.

All of the 1,105 employees the RCID is projected to add annually will earn salaries within the very low, low, and moderate categories. These employees will generate demand for 524 annual households, of which 464 annual households will fall within the very low, low, and moderate categories.

The average rental rate and home price that should be deemed as affordable to the households within each of the income categories was determined. Affordable rental rates are based on monthly rental rates of not more than 30 percent of a household's income adjusted for a $100 utility allowance. The establishment of an affordable housing price was established based on monthly payment of 30 percent of a household's income (including taxes and insurance). The total mortgage amount was calculated assuming a 7 percent interest rate, 30-year term, no points, and a 5 percent down payment.

A rent versus own split was determined using the Consumer Expenditure Survey (CES) created by the U.S. Department of Labor: Bureau of Labor Statistics adjusted to reflect the age make up of the RCID employment.

A similar analysis was conducted to determine the additional annual demand for affordable housing that will be generated by non-RCID employees within the HTZ.

Employment growth within the RCID is projected to generate on average demand for 464 affordable housing units each year over the next five years of which 268 are expected to be for-rent units and 196 are expected to

be for-sale units. The remainder of the HTZ is projected to generate demand for 3,299 affordable housing units of which 1,806 are expected to be for-rent units and 1,493 for-sale units. Total demand in the HTZ is projected to be for 2, 074 affordable for-rent units and 1,689 affordable for-sale units.

Housing Target Zone Affordable Housing Supply

An analysis of for-rent multi-family apartment complexes was made utilizing data provided by Charles Wayne Consulting to estimate the current supply of vacant apartments within the HTZ. Charles Wayne Consulting maintains a database of existing apartment complexes within Central Florida. The database includes information on vacancy rates, rental rates, unit count, etc. Since there are no update and accurate surveys of privately owned non-apartment rental units (single family, mobile home, condo, etc.), Census, BEBR, and CPI data were used to determine the supply of this type of rental housing.

According to Charles Wayne Consulting there are 199 apartment complexes within the HTZ that contain roughly 53,000 apartment units. The average vacancy rate across all 199 apartment complexes was shown to be eight percent. The ECFRPC affordable housing methodology states that the first five percent of vacant multi-family units must be removed to allow for transitional households leaving three percent of the roughly 53,000 apartment units or 1,586 vacant for-rent apartment units. Eight of these units were estimated to fall out of the affordable rental range threshold leaving 1,578 vacant for-rent apartment units available.

A Census based geographic modeling program, Isite by Geovue, was used to determine the number of renter occupied housing units within the HTZ in 2000. This number was then adjusted to account for growth between 2000 and 2008. Based on these calculations, there are 107,610 rental units within the HTZ from which 53,000 rental apartment units must be subtracted to arrive at 54,727 for-rent private residences the apartment units. Based on the 2006 Orlando MSA rental vacancy rate of 7.55 percent provided by the 2006 Census Bureau American Community Survey there are 4,132 vacant for-rent private residences within the HTZ. Rental rates were estimated based on the 2000 Census data adjusted for rental rate appreciation based on the Consumer Price Index for Rent of Primary Residences resulting 3,693 affordable private for-rent units.

In total, the 2008 Affordable Housing Study projects an annual supply of 5,271 for-rent units within the HTZ each year over the next five years. This includes 1,095 very low units, 2,850 low units, and 1,326 moderate units detailed in Table 4-2.

The evaluation of the affordable for-sale housing supply includes all parcel sales (single family, mobile home, and condominium) that occurred within the HTZ from January 1, 2007 to December 31, 2007 obtained from the Orange, Osceola, Polk, and Lake Counties' respective property appraisers. This one year snap shot is the basis for future supply for the next five years. The volume of sale at each price point within the three affordable income groups was calculated to determine that 6,355 home sales occurred within the HTZ during 2007 in which home prices fell within the very low, low, or moderate category as shown in Table 4-3. The aggregate affordable housing supply is presented in Table 4-4.

Table 4-2: Affordable Total For-Rent Affordable Housing Supply

Income Category	Income	Rental Rate	For-Rent Apartment	For-Rent Private	For-Rent Total
Very Low	$15,811	$295	0	155	155
Very Low	$18,750	$369	0	110	110
Very Low	$21,250	$431	1	157	158
Very Low	$23,750	$494	1	146	147
Very Low	$26,250	$556	19	263	282
Very Low	$28,550	$614	67	176	243
Low	$31,050	$676	195	272	467
Low	$33,750	$744	227	179	406
Low	$37,750	$837	343	367	710
Low	$42,500	$962	285	385	670
Low	$46,250	$1,056	155	442	597
Moderate	$50,000	$1,150	100	222	322
Moderate	$55,000	$1,275	74	369	443
Moderate	$60,000	$1,400	52	200	252
Moderate	$65,000	$1,525	38	160	198
Moderate	$70,000	$1,650	21	90	111
Total			1,578	3,693	5,271

Table 4-3: Affordable Total For-Sale Affordable Housing Supply

Income Category	Income	Home Price	Annual Supply
Very Low	$15,811	$46,905	60
Very Low	$18,750	$55,622	72
Very Low	$21,250	$63,039	45
Very Low	$23,750	$70,455	68
Very Low	$26,250	$77,872	44
Very Low	$28,550	$84,695	66
Low	$31,050	$92,111	88
Low	$33,750	$100,121	118
Low	$37,750	$111,246	173
Low	$42,500	$126,079	306
Low	$46,250	$137,204	414
Moderate	$50,000	$148,328	503
Moderate	$55,000	$163,161	873
Moderate	$60,000	$177,994	991
Moderate	$65,000	$192,827	1,244
Moderate	$70,000	$207,662	1,290
Total			6,355

Table 4-4: Aggregate Annual Affordable Housing Supply

Income Category	Income	Rental Rate	Home Price	For-Rent Total	For-Sale Total
Very Low	$15,811	$295	$46,905	155	60
Very Low	$18,750	$369	$55,622	110	72
Very Low	$21,250	$431	$63,039	158	45
Very Low	$23,750	$494	$70,455	147	68
Very Low	$26,250	$556	$77,872	282	44
Very Low	$28,550	$614	$84,695	243	66
Low	$31,050	$676	$92,111	467	88
Low	$33,750	$744	$100,121	406	118
Low	$37,750	$837	$111,246	710	173
Low	$42,500	$962	$126,079	670	306
Low	$46,250	$1,056	$137,204	597	414
Moderate	$50,000	$1,150	$148,328	322	503
Moderate	$55,000	$1,275	$163,161	443	873
Moderate	$60,000	$1,400	$177,994	252	991
Moderate	$65,000	$1,525	$192,827	198	1,244
Moderate	$70,000	$1,650	$207,662	111	1,290
Total				5,271	6,355

RCID Affordable Housing Impact

Based on the analysis of the affordable housing demand generated by RCID employment growth and the respective supply of affordable housing available within the updated HTZ boundary, there exists an adequate supply of affordable housing in the market to accommodate the annual demand for affordable housing generated by the RCID and all other affordable housing demand originating from within the HTZ. The affordable housing study completed in 2005 reached the same conclusion. Table 4-5 presents a summary of the projected annual supply and demand as shown in the 2008 study..

Table 4-5: Annual Affordable Housing Supply and Demand Summary

Income Category	Income	Rental Rate	Home Price	Annual Supply	Annual Demand	Net Surplus
Very Low	$15,811	$295	$46,905	215	200	15
Very Low	$18,750	$369	$55,622	182	105	77
Very Low	$21,250	$431	$63,039	203	132	71
Very Low	$23,750	$494	$70,455	215	149	66
Very Low	$26,250	$556	$77,872	326	156	170
Very Low	$28,550	$614	$84,695	309	277	32
Low	$31,050	$676	$92,111	555	163	392
Low	$33,750	$744	$100,121	524	204	320
Low	$37,750	$837	$111,246	883	363	520
Low	$42,500	$962	$126,079	976	356	620
Low	$46,250	$1,056	$137,204	1,011	239	772
Moderate	$50,000	$1,150	$148,328	825	296	529
Moderate	$55,000	$1,275	$163,161	1,316	345	971
Moderate	$60,000	$1,400	$177,994	1,243	239	1,004
Moderate	$65,000	$1,525	$192,827	1,442	192	1,250
Moderate	$70,000	$1,650	$207,662	1,401	347	1,054
Total				11,626	3,763	7,863

RCID HOUSING PROGRAMS

As required by Chapter 163, Part II, F.S., the District has facilitated the provision of affordable housing in the past and will continue to do so in the future. The overarching goal of the District's housing programs is to reduce the share of unmet affordable housing needs within the Housing Target Zone that is attributable to employment growth within the District. Policies in the Element provide specific direction on how this goal may be achieved. In addition, efforts have been directed toward increasing the availability of public transportation between the RCID and affordable housing projects elsewhere.

The most significant contribution made to address the affordable housing needs of persons employed within the District are three apartment complexes provided by the District's primary employer to serve the affordable housing needs of college and international students.

Vista Way – a 462-unit apartment complex was developed and owned by the District's primary employer on land formerly within RCID boundaries at the southwest corner of I-4 and SR 535. The parcel was deannexed from the District in 1990. The complex has 116 two bedroom units and 246 three bedroom units and houses up to 2,540 students working within the District. Utilities are included and free transportation is provided to and from work.

Chatham Square – a 448-unit apartment complex was developed and owned by a third party and leased to the District's primary employer on land formerly within RCID boundaries in the Little Lake Bryan development.

Little Lake Bryan was deannexed from the District in 1993. The complex has 164 one bedroom units, 144 two bedroom units, 84 three bedroom units, and 56 four bedroom units and houses up to 1,856 students working within the District. Utilities are included and free transportation is provided to and from work.

The Commons – a 280-unit apartment complex was also developed and owned by a third party and leased to the District's primary employer on land formerly within RCID boundaries in the Little Lake Bryan development. Little Lake Bryan was deannexed from the District in 1993. The complex has 104 one bedroom units, 120 two bedroom units, 40 three bedroom units, and 16 four bedroom units and houses up to 1,056 students working within the District. Utilities are included and free transportation is provided to and from work.

Orange County has approved an additional 288 unit apartment complex for student housing in the Little Lake Bryan area that is planned to house 1,296 students working within the District.

Reedy Creek Improvement District
Comprehensive Plan

INFRASTRUCTURE ELEMENT

Part A: Policies

INTRODUCTION

The Infrastructure Element addresses the provision of water, sewer, solid waste, and stormwater management services within the Reedy Creek Improvement District. It is divided into four "Subelements," corresponding to these topics. The element consists of a "Policies" component, which includes adopted goals, objectives, and policies for infrastructure, and a "Supporting Data and Analysis" component, which provides narrative text, tables, and maps describing existing and future conditions.

GOALS, OBJECTIVES, AND POLICIES

GOAL

It is the goal of the Reedy Creek Improvement District to provide water, sewer, solid waste, and stormwater management services to existing and future development within its boundaries in the most efficient, cost-effective, and environmentally sound manner possible.

POTABLE WATER

Objective 1

To extend and increase the capacity of central water facilities in a manner that meets future needs and maintains current levels of service.

Policy 1.1: The following level of service standards are adopted for the purposes of determining the adequacy and design capacity for potable water facilities:

Land Use	Unit	Gallons/Day
Residential	dwelling	350
Hotel (general)	keys	200
Luxury/Deluxe	keys	250
First Class	keys	200
Moderate/Economy	keys	150
Other Resort	keys	250
Convention Space	square foot	0.25
Support/ Office	square foot	0.25
Retail/General Commercial	square foot	0.30
Restaurant	seat	25
Theme Parks (general)	guest	50
Theme Parks (water)	guest	75

The Hotel and Other Resort standards listed above presume that reclaimed water is available for irrigation use. In the event that reclaimed water is not available, hotel and other resort standards shall be multiplied by 1.5.

(Amended by Ordinance/Resolution No. 510 adopted 07/28/2010 and Ordinance Nos. 128 and 125 adopted 07/14/2010)

Policy 1.2: The adopted level of service standards shall be used as the basis for replacing, expanding, or increasing the capacity of potable water facilities and potable water supplies. (Amended by Ordinance/Resolution No. 482 adopted 09/24/2008 and Ordinance Nos. 121 and 122 adopted 09/22/2008)

Policy 1.3: Development approvals shall be conditioned upon a specific finding that the increase in potable water demand resulting from the development can be met without a reduction in the adopted level of service no later than the date on which the District anticipates issuing a certificate of occupancy. (Amended by Ordinance/Resolution No. 482 adopted 09/24/2008 and Ordinance Nos. 121 and 122 adopted 09/22/2008)

Policy 1.4: Potable water system improvements shall be undertaken in accordance with the priority list identified in the Capital Improvements Element. This list shall be based on the following criteria:

(1) first priority shall be for correcting deficiencies in the system, should such deficiencies arise in the future, and for improvements that serve health and safety functions or maximize the efficiency of the existing system;

(2) second priority shall be for extensions to the system that accommodate development through 2015; and

(3) third priority shall be for extensions to the system that accommodate development beyond 2015.

(Amended by Ordinance/Resolution No. 510 adopted 07/28/2010 and Ordinance Nos. 128 and 125 adopted 07/14/2010)

Policy 1.5: All new development in the District shall continue to include a water system of sufficient size and design to supply water for fire protection within each building or structure to be erected within the development.

Policy 1.6: The potable water system shall have the following minimum design criteria:

(1) *Design Flow*: The greater of instantaneous peak demand or fire flow (3,500 gpm minimum) plus peak-day demand.

(2) *Storage Capacity*: Volume sufficient to meet peak firefighting demands, plus maximum day system demand, for a minimum four hours in duration and at least 25% of the peak day demand.

3) *Pressure:* Greater than or equal to 50 pounds per square inch at remote points in the system under normal operating conditions and greater than 30 psi under fire flow conditions.

(Amended by Ordinance/Resolution No. 482 adopted 09/24/2008 and Ordinance Nos. 121 and 122 adopted 09/22/2008)

Policy 1.7: All new development in the District shall continue to include a water system of sufficient size and design to supply water for fire protection within each building or structure to be erected within the development. (Added by Ordinance/Resolution No. 482 adopted 09/24/2008 and Ordinance Nos. 121 and 122 adopted 09/22/2008)

Objective 2

To ensure that groundwater resources are used efficiently and conservatively within the District and that their use results in no anthropogenic adverse impacts to surface waters and wetlands between 2008 and 2018. (Amended by Ordinance/Resolution No. 482 adopted 09/24/2008 and Ordinance Nos. 121 and 122 adopted 09/22/2008)

Policy 2.1: The RCID building and plumbing codes shall continue to require the use of water-saving showerheads, faucets, and other fixtures in new construction that minimize the consumption of water, consistent with the State Water Conservation Act (Section 553.14, Florida Statutes).

Policy 2.2: The District shall continue to promote educational programs that foster water conservation and reduction measures by collecting information from water control districts, publications, and other sources and making it available to current and future uses.

Policy 2.3: The District shall restrict irrigation to evenings, nights, and early morning hours, continually review and revise building codes to reflect new water conservation technology, comply with all water restrictions imposed by the Water Management District, and maintain an emergency water conservation plan that is consistent with Water Management District, standards. Consideration will be given to revising rate structures to provide incentives for water conservation. (Amended by Ordinance/Resolution No. 482 adopted 09/24/2008 and Ordinance Nos. 121 and 122 adopted 09/22/2008)

Policy 2.4: All landscaped areas within new development parcels shall be required to either connect to the water reuse system or use native plant material in accordance with the Xeriscaping Policy of the South Florida Water Management District (SFWMD). (Amended by Ordinance/Resolution No. 510 adopted 07/28/2010 and Ordinance Nos. 128 and 125 adopted 07/14/2010)

Policy 2.5: A continuing effort shall be made to reduce the use of potable water for irrigation and expand the reclaimed water system to serve older development areas within District boundaries. The success of this effort may be measured in part by the ratio of average day wastewater flows to average day potable water withdrawal (0.55 in 1991, 0.60 in 1997, and 0.78 in 2007). As the District shifts away from using potable water for irrigation, a larger volume of potable water will be returned to the treatment plant and this ratio will rise closer to the theoretical maximum of 1.0. (Amended by Ordinance/Resolution No. 482 adopted 09/24/2008 and Ordinance Nos. 121 and 122 adopted 09/22/2008)

Policy 2.6: The District shall continue to investigate feasible techniques for other applications of reclaimed and treated effluent which will result in the reduced use of potable water.

Policy 2.7 To ensure efficient use of reclaimed water, RCID shall require all new development and all conversions of existing irrigation systems from potable water to reclaimed water to be equipped with weather sensors that control the amount and rate of reclaimed water application to match the needs of the vegetation. Such weather sensors shall measure effective rainfall and calculate evapotranspiration rates to determine the optimum irrigation rate and duration. Overriding of the weather sensors for the purpose of increasing landscape irrigation shall not be permitted. (Added by Ordinance/Resolution No. 482 adopted 09/24/2008 and Ordinance Nos. 121 and 122 adopted 09/22/2008) (Amended by Ordinance/Resolution No. 510 adopted 07/28/2010 and Ordinance Nos. 128 and 125 adopted 07/14/2010)

Objective 3

To maintain levels of potable water quality that meet or exceed state and federal standards.

Policy 3.1: The District shall locate future wells in accordance with all appropriate SFWMD and FDEP regulations, and in compliance with its own Land Development Regulations (LDRs). The well protection standards given in the LDRs shall be updated as necessary to ensure that they meet or exceed state and federal standards.

Policy 3.2: The RCID shall not establish new wells in areas where the potential for unsuitable groundwater exists because of current or historic activities and land uses.

Policy 3.3 The RCID shall not establish new wells in areas where the groundwater withdrawal impacts may adversely affect surface waters or wetland. (Added by Ordinance/Resolution No. 482 adopted 09/24/2008 and Ordinance Nos. 121 and 122 adopted 09/22/2008)

Objective 4

To maintain an administrative system that ensures the efficient, safe, and reliable delivery of potable water services and ensures that land use and water facility planning are integrated.

Policy 4.1: The RCID shall continue to provide potable water services to customers within its boundaries.

Policy 4.2: The RCID shall continue to require new development within the current utility service area to be linked to the District's water system.

Policy 4.3: The RCID shall maintain a Master Utilities Plan which estimates potable and reclaimed water demand and identifies water and reclaimed water facility needs. The District shall update this Plan not less than once every five years.

Policy 4.4: The RCID shall continue to ensure compliance with standards in its Land Development

Regulations that specify the procedure for delivery of water services to new development.

Policy 4.5: The RCID shall continue its current program of preventive maintenance for the potable water system.

Policy 4.6: The RCID shall not extend water services to land outside its boundaries unless provided for by interlocal agreements. Water extensions beyond District boundaries may be considered appropriate if the area to be served will be developed with affordable housing or other uses providing local and regional benefits and consistent with the receiving jurisdiction's comprehensive plan.

Policy 4.7: The RCID shall meet with the major landowners as needed but not less than once a year to discuss pending development plans and their probable impacts on water facility needs.

Policy 4.8 The RCID shall strive to make additional interconnections with Orange County and Toho Water Authority to provide and receive supplies in time of emergency. (Added by Ordinance/Resolution No. 482 adopted 09/24/2008 and Ordinance Nos. 121 and 122 adopted 09/22/2008)

Policy 4.9 The RCID shall partner with neighboring local utilities and the water management districts in the development and regionalization of alternative water supply sources for future needs as identified in the Infrastructure Element, Part B: Supporting Data and Analysis Table 5-12 and Table 5-13. Partnering shall include:

1) The development and execution of an interlocal agreement with the STOPR group and the water management districts to implement a Central Florida regional water resources plan by 2009;

2) Funding the evaluation of the alternative water supply sources in Table 5-12 and Table 5-13 by the end of calendar 2010; and

3) Implementing selected alternative water supply sources to match future needs.

(Added by Ordinance/Resolution No. 482 adopted 09/24/2008 and Ordinance Nos. 121 and 122 adopted 09/22/2008)

Objective 5
(Added in its entirety by Ordinance/Resolution No. 482 adopted 09/24/2008 and Ordinance Nos. 121 and 122 adopted 09/22/2008)

To maintain a Water Supply Facilities Work Plan for at least a ten (10) year planning period for constructing the water supply facilities to serve existing and new development necessary to achieve and/or maintain the level of service standards adopted in this Element.

Policy 5.1 The conversion of non-potable uses of groundwater to reclaimed water has the greatest potential and appears to be the easiest and least costly for RCID and is the alternative water supply source selected by RCID to meet future water use demand.

Policy 5.2: The RCID shall convert all potable water irrigation and cooling towers to reclaimed water use as shown in Table 5-6 – Proposed Implementation Plan for Reclaimed Water Conversions as contained in the Infrastructure Element, Part B: Supporting Data and Analysis as necessary to achieve and maintain the level of service standards adopted in this Element.

Policy 5.3 All potable water irrigation within RCID shall be performed with reclaimed water and conversion of existing irrigation systems from potable water to reclaimed water needs to be completed no later than December 31, 2017.

Policy 5.4 All centralized RCID cooling towers shall be converted to reclaimed water no later than December 31, 2017.

Policy 5.5 The following Five-Year Schedule of Capital Improvements for water supply facilities is adopted:

Project Description	Source	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
1000 LF of 8-inch main on 7 Seas Dr 4-inch & 6-inch mains on Buena Vista Dr 4-inch main extensions on Buena Vista Dr 6-inch main extensions from World Dr 12-inch main along Epcot Resorts Blvd from World Dr 12-inch main along Epcot Resorts Blvd from World Dr 4-inch, 6-inch, & 8-inch main extensions on Hotel Plaza Blvd	Bond Funds (On Hand) or Net Revenues	$0	$370	$590	$1,090	$910	$0

Notes:

Funding Source: Net Revenues = consist of sewer and reclaimed water sales, investment income, and miscellaneous revenues net of operating and maintenance expenses, reserves and replacements, and debt service.

Estimates reflect 2008 costs and have not been inflated to year of construction

(Amended by Ordinance/Resolution No. 510 adopted 07/28/2010 and Ordinance Nos. 128 and 125 adopted 07/14/2010)

SANITARY SEWER

Objective 6

To extend and increase the capacity of sanitary sewer facilities in a manner that meets future needs and maintains current levels of service.

Policy 6.1: The following level of service standards are adopted for the purposes of determining the adequacy and design capacity for sanitary sewer facilities:

Land Use	Unit	Gallons/Day
Residential	dwelling	300
Hotel (general)	keys	180
Luxury/Deluxe	keys	230
First Class	keys	180
Moderate/Economy	keys	130
Other Resort	keys	230
Convention Space	square foot	0.20
Support/ Office	square foot	0.20
Retail/General Commercial	square foot	0.25
Restaurant	seat	20
Theme Parks (general)	guest	30
Theme Parks (water)	guest	50

(Amended by Ordinance/Resolution No. 510 adopted 07/28/2010 and Ordinance Nos. 128 and 125 adopted 07/14/2010)

Policy 62: The adopted level of service standards shall be used as the basis for replacing, expanding, or increasing the capacity of sanitary sewer facilities.

Policy 6.3: Development approvals shall be conditioned upon demonstration that the increase in sanitary sewer demand resulting from the development can be met at the time of its occupancy without a reduction in the adopted level of service.

Policy 6.4: Development in the RCID shall continue to require wastewater collection lines of sufficient size to receive and carry wastewater from all buildings and structures to the District's main system. Minimum gravity sanitary sewer size for lines maintained or owned by RCID will be eight inches in diameter. Non-RCID laterals may be less than eight inches in diameter but not less than four inches.

Policy 6.5: The District shall continue to maintain a treated effluent disposal system which minimizes the potential for surface water pollution. The disposal system should be designed so that a majority of the District's treated effluent can be disposed through the reclaimed water system during dry weather periods.

Objective 7

To maintain levels of effluent quality that meet or exceed state and federal standards.

Policy 7.1: The following annual average effluent quality standards shall be maintained at the RCID wastewater treatment plant:

1) 5 mg/l biochemical oxygen demand;
2) 5 mg/l total suspended solids;
3) 3 mg/l total nitrogen;
4) 1 mg/l total phosphorus; and
5) pH 6.0 to 8.5.

Policy 7.2: New technologies to improve the quality of wastewater effluent shall continue to be explored as they become available and economically feasible.

Objective 8

To maintain an administrative system that ensures the efficient, safe, and reliable delivery of sanitary sewer services, and ensures that land use and wastewater facility planning are integrated.

Policy 8.1: The RCID shall continue to provide sanitary sewer services to customers within its boundaries.

Policy 8.2: The RCID shall continue to require all new development to be linked to the central wastewater system. New, independent package plants and collection systems serving individual developments shall not be permitted, unless accompanied by a bona fide plan for feasible connection to the central system within five years. Independent package plants and circulation systems may be permitted to treat pools within animal related exhibits at theme parks, provided that their backwashings and other liquid wastestreams are discharged to the sanitary sewer.

Policy 8.3: The RCID shall maintain a Master Utilities Plan which estimates long-term wastewater demand and wastewater facility needs. The District shall update this plan not less than once every five years.

Policy 8.4: The RCID shall continue to ensure compliance with standards in its Land Development Regulations that specify the procedure for delivery of sanitary sewer services to new development.

Policy 8.5: The RCID shall continue its current program of preventive maintenance for the sanitary sewer system.

Policy 8.6: The RCID shall not extend sanitary sewer services to land outside its boundaries unless provided for by interlocal agreements. Wastewater extensions beyond District boundaries may be considered appropriate if the area to be served will be developed with affordable

housing or other uses providing local and regional benefits and consistent with that jurisdiction's comprehensive plan.

Policy 8.7: Septic tanks shall continue to be permitted only under the following circumstances:

1) residential development with an average gross density of one unit per acre or less, no central sewer available, and demonstration that soils are suitable for septic tank use; or

2) free-standing recreational or service buildings more than one-quarter mile from a developed area with average daily wastewater flow not to exceed 1,000 gpd, no central sewer available, and demonstration that soils are suitable for septic tank use.

Policy 8.8: The RCID shall meet with the major landowners as needed but not less than once a year to discuss pending development plans and their probable impacts on sanitary sewer facility needs.

SOLID WASTE

Objective 9

To increase the capacity of solid waste facilities in a manner that meets future needs and maintains current levels of service.

Policy 9.1: The following level of service standards are adopted for the purposes of determining the adequacy and design capacity of solid waste facilities:

Land Use	Unit	Lbs/Day
Residential	dwelling	11.5
Hotel (general)	keys	7.5
Luxury/Deluxe	keys	11.0
First Class	keys	7.5
Moderate/Economy	keys	6.0
Value	keys	3.5
Other Resort	keys	6.0
Convention Space	square foot	0.0325
Support/ Office	square foot	0.002
Retail/General Commercial/Restaurant	square foot	0.0325
Theme Parks (general)	park	10 to 20 tons*
Theme Parks (water)	park	0.5 to 1.0 tons*

*depending on size and amenities

(Amended by Ordinance/Resolution No. 510 adopted 07/28/2010 and Ordinance Nos. 128 and 125 adopted 07/14/2010)

Policy 9.2: The adopted levels of service standards shall be used as the basis for replacing, expanding, or increasing the capacity of solid waste facilities. The primary facility to which the level of service standards shall be applied will be the solid waste transfer station. The service standards may also be used to estimate vehicle fleet requirements and capacity requirements for recycling and processing facilities.

Policy 9.3: Development approvals shall be conditioned upon demonstration that the increase in demand for solid waste services resulting from the development can be met at the time of its occupancy without a reduction in the adopted level of service.

Policy 9.4: The RCID shall continue to transport its commercial and domestic solid wastes to permitted landfill facilities. The transfer of wastes to permitted facilities shall be governed by written service agreements.

Policy 9.5: Growth in solid waste volumes shall continue to be accommodated through expansion of the solid waste transfer station, addition of vehicles and equipment, and development of new facilities for processing, recycling and resource recovery. New landfills may not be established within the District.

Policy 9.6: Within new development, sites for solid waste compacting and collection equipment shall be

provided in an efficient and cost-effective manner.

Objective 10

To provide capacity to divert at least 50 percent of the Class I waste generated within District boundaries from landfill disposal.

Policy 10.1: The RCID shall maintain and expand its program for recycling newspaper, office paper, aluminum cans, glass, and plastics.

Policy 10.2: The RCID shall promote the processing of lawn and gardening waste, biosolids, food, and other materials.

Policy 10.3 All new development that employs or houses more than ten people shall be required to set aside areas for source separation of solid waste.

Policy 10.4: The RCID shall maintain an effective public awareness and information program to increase and maintain public participation in recycling and waste reduction programs.

Policy 10.5: The RCID shall continue to investigate and review the latest available technology for resource recovery and other alternative solid waste management technologies.

Policy 10.6: The RCID shall continue to encourage innovative and experimental plans and programs that maximize the efficient collection, storage, handling, disposal, and recovery of solid waste materials.

Policy 10.7: The RCID shall continue to explore options for reducing the percentage of construction debris requiring landfill disposal.

Policy 10.8: The RCID shall promote the application of new technologies, including waste pelletization, to reduce landfill disposal needs.

Objective 11

To ensure environmental safety in the collection, storage, handling, and disposal of all solid wastes, including hazardous materials.

Policy 11.1: The RCID shall prohibit the holding of hazardous materials, as defined by the Florida Substances list, within the 100-year flood plain, and within 200 feet of a designated Section 404 wetland.

Policy 11.2: The RCID shall maintain agreements with off-site landfills for the disposal of a majority of the non-recyclable Class III (construction) waste-stream. The existing construction landfill within District boundaries will not be expanded and will only be used for disposal of small quantities of non-recyclable construction and plant debris, or as a stockpiling area for materials to be recycled.

Objective 12

To maintain an administrative system that ensures the efficient, safe, and reliable delivery of solid waste services.

Policy 12.1: The District shall ensure that its waste collection, transfer, and landfill transportation system is economical, efficient, and environmentally sound. On-site collection and transfer services will be provided by a District vehicle fleet. Transfer to landfills may occur by third-party contractors, as provided by service agreements.

Policy 12: The RCID shall continue preparing regular reports indicating the amount of solid waste generated at each major collection point and the percentage of this waste diverted from landfills. This information shall be used to evaluate the need for additional collection and recycling vehicles. The tonnage of waste requiring handling at the transfer station shall be compared to transfer station capacity to determine if additional capacity is needed.

Policy 12.3: The RCID shall update its transfer station as needed to incorporate new technologies, particularly technologies which reduce the volume of waste requiring landfill disposal.

Policy 12.4: The RCID shall continue to ensure compliance with standards in its Land Development Regulations that specify the solid waste provisions that must be made in new developments.

Policy 12.5: The RCID shall meet with the major landowners as needed, but not less than once a year, to discuss pending development plans and their probable impacts on solid waste facility needs.

Policy 12.6: As needed but not less than once every two years, the District shall assess its waste disposal agreements and ensure that adequate long-range capacity exists at the landfills where its solid waste is disposed.

STORMWATER MANAGEMENT

Objective 13

To correct any stormwater management system deficiencies identified in this Plan, or identified in the future.

Policy 13.1: The following criteria shall be used for determining stormwater management system priorities:

1) Flooding projected to occur within existing developed areas in a 10-year storm event.

2) Flooding projected to occur within existing developed areas in a 50-year storm event.

3) Flooding projected to occur within vacant areas programmed for development in the Future Land Use Element in a 10-year storm event.

4) Flooding projected to occur within vacant areas programmed for development in the Future Land Use Element in a 50-year storm event.

Policy 13.2: The District shall, at least biennially, reassess stormwater management system conditions by running its drainage model.

Policy 13.3: The District shall continue to prepare an annual report assessing the operation of its stormwater management facilities and identifying capital improvement needs and operation and maintenance needs.

Objective 14

To achieve and maintain adopted level of service standards for stormwater management.

Policy 14.1: The following level-of-service standards shall be adopted:

1) The main District Drainage System shall convey the 50-year, 3-day storm event as determined by the RCID stormwater model.

2) The discharge at S-40 shall be limited to 3,282 cubic feet per second during a 10-year, 3-day storm event.

3) Arterial roadways shall remain above the 50-year, 3-day storm event elevation as determined by a stormwater model acceptable to the District.

4) The first floor of all habitable structures and public facilities shall be a minimum of one foot above the 100-year, 3-day storm event elevation, as determined by a stormwater model acceptable to the District.

5) In accordance with the SFWMD permit, all project sites shall retain the first one inch of runoff, or 2.5 times the site acreage times the percentage of impervious surface, whichever is greater, before discharge to the District's system.

Policy 14.2: In order to ensure that the level-of-service standards described in Policy 14.1 are maintained as new development occurs, the District shall annually assess the need for facility improvements and shall program capital improvements as required to maintain adopted level of service standards.

Policy 14.3: When new development is proposed, the District shall require an evaluation of the need for drainage improvements. These improvements may include, but shall not be limited to, construction of on-site detention ponds and modifications to canals and water control structures.

Policy 14.4: Any canal realignment or water control facility relocation proposed in conjunction with new development shall ensure that the adopted levels of service are maintained.

Policy 14.5: The District shall ensure that no development occurs within the 100-year floodplain, unless compensating storage is provided within the sub-basin, and the flood carrying capacity of the floodway is maintained.

Policy 14.6: In order to ensure that the level of service standards described in Policy 14.1 are achieved, all stormwater management permit applications proposing to use the benefits of the RCID Conceptual Stormwater Permit shall be approved by the District prior to submission to the South Florida Water Management District. The District shall require stormwater permit applications to include sufficient data and exhibits to ensure that the level of service standards are not exceeded. (Amended by Ordinance/Resolution No. 510 adopted 07/28/2010 and Ordinance Nos. 128 and 125 adopted 07/14/2010)

Policy 14.7: All stormwater discharges from sources outside the District shall limit their drainage contributions into the District to the amount contributed prior to development occurring on the parcel.

Policy 14.8: All stormwater discharges from sources outside the District shall meet the standards found in Chapter 62, Florida Administrative Code.

Policy 14.9: The District shall require a Drainage Agreement and collection of a use fee for any drainage entering the District in accordance with Circuit Court Order #66-1061, Section IV in Osceola County or Circuit Order #66-1061, Section V in Orange County, as is appropriate. In those cases where a SFWMD analysis is required a copy of the SFWMD permit shall be delivered to the District upon issuance by SFWMD, and in those cases where the SFWMD analysis is not required, the District shall require a report similar to that prepared by the SFWMD prior to executing a drainage agreement. (Amended by Ordinance/Resolution No. 510 adopted 07/28/2010 and Ordinance Nos. 128 and 125 adopted 07/14/2010)

Policy 14.10: All drainage within the District or contributing to the District's Drainage system shall be required to be consistent with the schedule of improvements in the *RCID Comprehensive*

Plan Capital Improvements Element; or meet pre-development stormwater discharge standards; or include total funding for the required improvements. The geographic area covered by Policies 14.7 through 14.11 is shown in Figure 5-5.

Policy 14.11: All requests for modifications to the SFWMD Surface Water Management Permit shall be submitted to the District for review and approval and shall be accompanied by appropriate text and drawings signed and sealed by a civil engineer registered in Florida.

Policy 14.12: The District's drainage model shall include a maximum area within District boundaries that may be covered by impervious surfaces. All new development shall be reviewed to ensure that it does not cause this maximum to be exceeded. The maximum may be modified in conjunction with the annual update of the District's drainage model.

Objective 15

To continue a maintenance and inspection program which ensures that existing stormwater management facilities are maintained.

Policy 15.1: Bridges over the RCID's waterways shall be inspected at least biennially to ensure that their structural integrity is maintained.

Policy 15.2: Drainage structures and levees shall be inspected at least semi-annually to guarantee proper maintenance and ensure that their structural integrity is maintained.

Policy 15.3: Any improvements necessitated by the inspections described in Policies 15.1 and 15.2 shall be included in the annual Capital Improvements Element, unless such improvements are regular maintenance or repair expenses.

Policy 15.4: The District shall conduct periodic major cleanouts of its canal system. Where warranted by the scale of the cleanout, these projects may be scheduled as capital improvements.

Objective 16

To retain the unimproved portion of Reedy Creek in its natural condition.

Policy 16.1: Except as required at roadway bridge crossings, there shall be no structural improvements made to the portion of Reedy Creek south of the L-410 Canal.

Policy 16.2: Any future crossings of Reedy Creek south of the L-410 canal, and any improvements to existing crossings in this area, shall be designed to minimize impacts to the creek and adjoining wetlands and shall not reduce the carrying capacity of the floodway.

(See Conservation Element Policy 7.2 for discussion of the wetland buffer zone along Reedy Creek)

Objective 17

To maintain stormwater pollution control measures which ensure compliance with state and federal pollution control standards.

Policy 17.1: The District shall ensure that Best Management Practices are used during construction to preclude degradation of the stormwater management system.

Policy 17.2: Any stormwater quality standards to be adopted by the RCID shall be at least as stringent as those identified in its National Pollution Discharge Elimination System (NPDES) permit, or the successor to this permit.

Reedy Creek Improvement District
Comprehensive Plan

INFRASTRUCTURE ELEMENT

Part B: Supporting Data and Analysis

PURPOSE

The Infrastructure Element of the Reedy Creek Improvement District Comprehensive Plan addresses the provision of potable water, wastewater, solid waste, and stormwater management services in the RCID.[1] This element is divided into four subelements, corresponding to the topic headings listed above. Each subelement includes an analysis of existing conditions, a projection of future conditions based on the development scenario described in the Future Land Use Element, and a description of needed capital improvements.

The data and analysis in this element focus on five-year (2015) and ten-year (2020) timeframes. The five-year timeframe coincides with the Capital Improvement Program (CIP) years (FY 2011 - FY 2015) for consistency. Future updates of the District's CIP may result in amendments to the Capital Improvements Element. In such cases, the Infrastructure Element will be updated for internal consistency, but the most current and comprehensive data on capital improvements will be found in the Capital Improvements Element.

POTABLE WATER

OVERVIEW

Note: In accordance with Section 119.071(3), Florida Statues, maps of the RCID water supply and distribution system are not provided herein due to the sensitive nature of these facilities and the security thereof.

Reedy Creek Improvement District is the sole provider of water services for the District. All of the District's water facilities are located within its boundaries and all development is connected to the central water system. As of 2008, the service area was contiguous with the District boundary, with the exception of the CrossRoads retail, dining, and entertainment center and the Vista Apartments, which were formerly within the District and then de-annexed. Some of the more remote and undeveloped portions of the District lack direct access to potable water infrastructure at this time.

The area receiving services contains two separate subdistricts. In general, Subdistrict I serves the City of Bay Lake and Subdistrict II serves the City of Lake Buena Vista. The central water system accounts for more than 99 percent of the pumping capacity in the RCID; the independent wells account for less than one percent. Additional water is provided for non-potable purposes through a reclaimed water system originating at the wastewater treatment plant. This system is described later in this element (see "Reclaimed Water System").

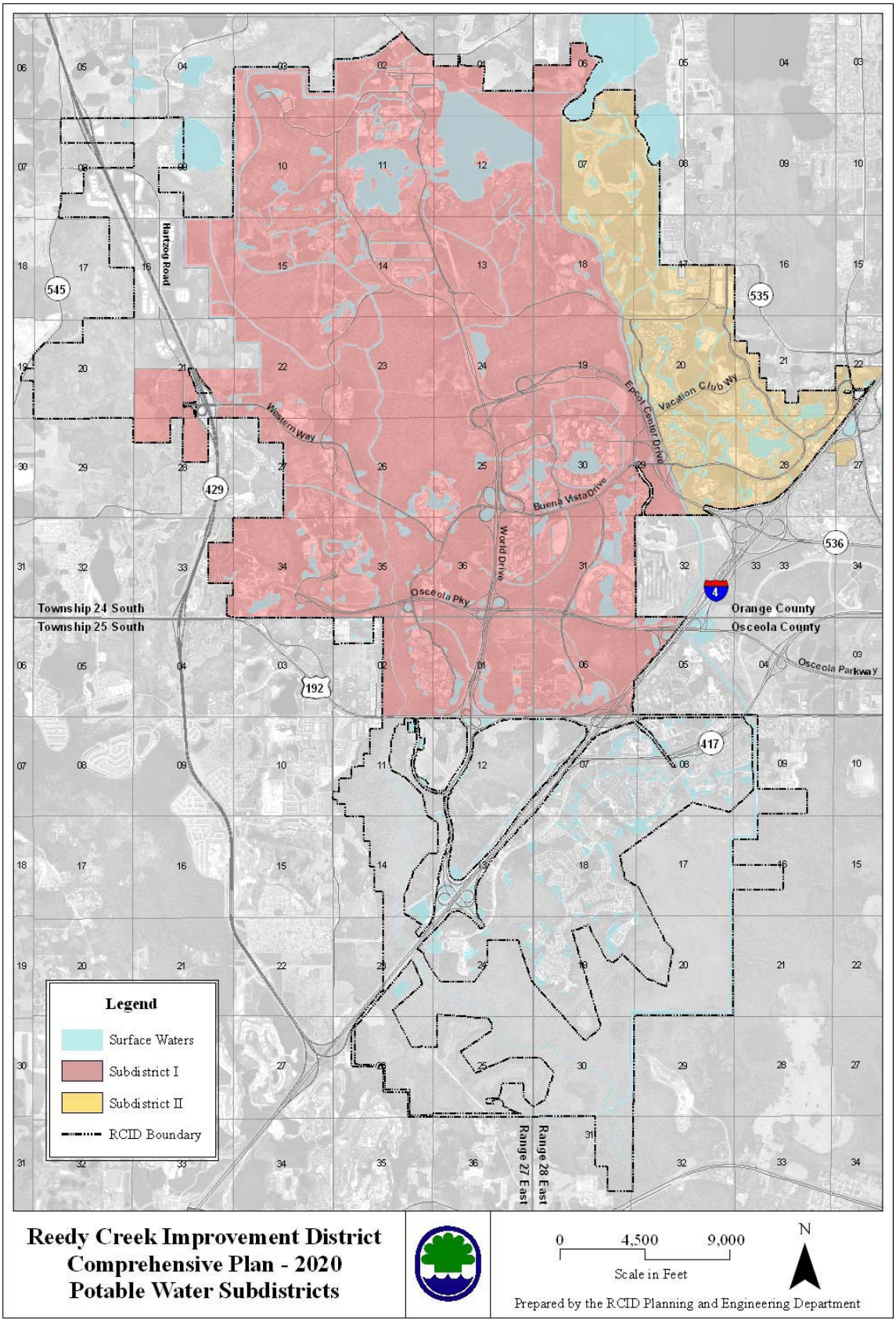
The predominant land uses served by potable water are similar in both subdistricts. These uses are characterized by large-scale resort and entertainment complexes and support service areas. There are no major residential, industrial or agricultural water users. Each subdistrict contains several areas of concentrated development, other areas that have yet to be developed, and areas reserved for long-term open space. Most of the service demand in Subdistrict I is associated with the four major theme parks and related

[1] *The Groundwater Recharge Subelement is contained within the Conservation Element.*

resorts. Water from the Subdistrict I system is also used at the service area north of the Magic Kingdom, the Fort Wilderness Resort and Campground, Disney's Wide World of Sports Complex, and Blizzard Beach Water Park.

Subdistrict II is about half as large as Subdistrict I and comprises fewer acres of developed land. It includes the Hotel Plaza Boulevard resorts, the Downtown Disney retail, dining, and entertainment complexes, office uses, the Administration Area, the Typhoon Lagoon Water Park, Old Key West Vacation Club, and the Saratoga Springs Vacation Club. Irrigation systems at the Lake Buena Vista golf courses have been converted from independent groundwater wells to the reclaimed water system. About 145,000 gallons a day from the Subdistrict II system are provided to Vista Way Apartments, an employee housing complex just outside District boundaries, and about 60,000 gpd to the CrossRoads, a retail, dining, and entertainment area just outside the District boundaries. All other Subdistrict II water users are within District boundaries. The boundaries of Subdistricts I and II are shown in Figure 5-2.

Figure 5-1: RCID Potable Water Subdistricts



REGULATORY FRAMEWORK

The federal Safe Drinking Water Act (Public Law 93-523) directed the U.S. Environmental Protection Agency (EPA) to establish minimum standards for potable water. These standards are divided into "primary" (required for public health) and "secondary" (recommended for aesthetic quality). Florida subsequently adopted the Florida Safe Drinking Water Act (403.850, Florida Statutes); the Florida Department of Environmental Protection (FDEP) is responsible for implementing this act. FDEP has promulgated rules classifying and regulating public water systems (Chapter 62-550, Florida Administrative Code). The South Florida Water Management District is responsible for managing water supplies to meet existing and future demands and issuing permits for consumptive use.

WATER SOURCES

Both subdistricts receive their water supply from the Upper Floridan aquifer. Groundwater is pumped to the central system by 11 wells, with depths varying from 200 to 900 feet. Water quality is excellent and requires only chlorination to meet state and federal drinking water standards. Extracted potable water is replenished principally by rainfall and by groundwater flow from recharge areas south and west of the District.

Subdistrict I

Subdistrict I is divided into northern and southern regions. Water is provided by Pump Station A in the north and by Pump Stations B and D in the south. The characteristics of the Subdistrict I wells are listed in Table 5-1.

Pump Station A, north of the Magic Kingdom, is fed by Wells 9 and 10. The wells have been operational since 1970. The two active wells have a combined capacity of 8,000 gallons per minute (gpm), while the pump station has a firm capacity of 12,000 gpm.

Table 5-1: Characteristics of Subdistrict I Potable Wells, 2008

Subdistrict I		
Well Number	**2008 Capacity (gpm)**	**Pump Station Served**
2	1,500	B
2A	3,000	B
9	4,000	A
10	4,000	A
17	3,500	B
18	4,000	D
19	4,000	D
21	4,000	D
Independent wells		
11	40	*Irrigation for Bay Court*
14	(*) *2000*	N/A
13	(*) *3000*	N/A
20	(**) 500	N/A

Notes:
(*) indicates reclaimed water augmentation well – back-up to reuse system only
(**) indicates irrigation well

Pump Stations B and D are located in the vicinity of Disney's Hollywood Studios and the All Star Resorts respectively. Pump Station B is fed by Wells 2, 2A, and 17 and has a firm capacity of 15,000 gpm. Wells 2 and 2A have been operational since 1982, and Well 17 became operational during 1989. Water is chlorinated at an adjacent ground storage reservoir and is boosted to system pressure (90+ psi) by high service pumps.

Wells 18 and 19 are located on the south side of Osceola Parkway west of World Drive. Well 19 feeds Pump Station D, and Well 18 can be routed to either Station B or D, depending on a valve choice. Well 21, serves Pump Station D exclusively.

With emergency and inactive wells excluded, the Subdistrict I wells have a combined pumping capacity of about 28,000gpm. Wells 13 and 14 serve as backup supplies to the reclaimed water system and cannot provide water to the potable system with the current piping arrangement.

Two independent wells (11 and 20) in Subdistrict I serve small areas not linked to the central water system. Well 11 provides irrigation for the mobile homes on the north shore of Bay Lake. Well 20 provides irrigation water to support facilities in the Bear Island Road area, including the tree farm, and is used as an indirect augmentation source to the reclaimed water system should demands exceed supplies. Well 20 is typically inactive since the area is serviced with reclaimed water.

Subdistrict II

Wells 5, 6, and 16 provide the major source of water in Subdistrict II. Wells 6 and 16, with a cumulative pumping capacity of 7,500 gpm, pump groundwater to Pump Station C. The Pump Station has a firm capacity of 10,200 gpm and is located on the east side of Buena Vista Drive near the Disney Institute. Well 5, with a capacity of 1,100 gpm, is located in the Administration Area. Well Number 7 was removed from the system in the 1980s and is now used for monitoring purposes associated with the District's water use permit.

With emergency and inactive wells excluded, wells in the Subdistrict II system have a cumulative pumping capacity of 8,600 gpm. Water is provided at a pressure of 65+ psi.

In addition to the wells listed above, irrigation water can be pumped from two independent wells (Wells 1 and 3) within this subdistrict; both serve as indirect back-up to the reclaimed water system for the golf course adjacent to the Disney Institute. These wells have remained inactive for the past fifteen years due to the reliability of the reclaimed water system. The characteristics of the Subdistrict I wells are listed in Table 5-2.

Table 5-2: Characteristics of Subdistrict II Potable Wells, 2008

Subdistrict II		
Well Number	**2008 Capacity (gpm)**	**Pump Station Served**
5	1,100	5
6	3,500	C
7	*Removed From System. For Monitoring Only.*	N/A
16	4,000	C
Independent wells		
1	(**) 600	N/A
3	(**) 600	N/A

Notes:
(*) indicates reclaimed water augmentation well
(**) indicates irrigation well

Surface Water Withdrawal

Until the mid 1990s, the District relied heavily on surface water to irrigate golf courses in the Magic Kingdom vicinity. The District's SFWMD permit allowed 5,500 gpm of surface water to be withdrawn via pumps on the L-405 canal. Approximately 389 million gallons of surface water were used during 1989. With the provision of reclaimed water service to this area, surface water use declined dramatically. In 1997, 50 million gallons were withdrawn for this purpose, less than one percent of total consumption. Since 1998, no surface water has been used for golf course irrigation and all irrigation needs have been met with reclaimed water.

STORAGE AND PRESSURE SYSTEMS

To augment the water production facilities during peak periods, there are five storage reservoirs (three in Subdistrict 1 and two in Subdistrict II) with a combined capacity of 7.75 million gallons. Subdistrict I has approximately 75 percent of the storage capacity, with the balance in Subdistrict II. Each reservoir is accompanied by pumping and booster stations for pressurization. With the exception of Pump Station “A” which is fed from two independent power sources, the pumps are equipped with emergency diesel-powered generators for system reliability.

Subdistrict I

Wells 2, 2A, and 17 (and sometimes 18) pump directly into a 2.0 million gallon concrete reservoir located adjacent to Pump Station "B." The pump station pressurizes the distribution system via six 3,000 gpm booster pumps. Wells 9 and 10 pump water to a 2.5 million gallon concrete reservoir located adjacent to Pump Station "A." The pump station provides pressure to the distribution system using five 3000 gpm high service pumps. Water from Wells 18, 19 and 21 is stored in a 1.25 million gallon reservoir at Pump Station “D.”

Subdistrict II

There are two reservoirs adjacent to Pump Station "C" (which is adjacent to Well 6), each with a capacity of one million gallons. Six booster pumps with a combined capacity of 10,200 gpm withdraw water from the reservoir and provide the operating pressure for the distribution system. These booster pumps provide the primary water supply for Subdistrict II.

DISTRIBUTION SYSTEMS

The distribution system consists of a looped network comprised predominantly of polyvinyl chloride (pvc), and ductile iron pipes ranging in size from 4 to 24 inches. The water system is equipped with valves that permit segments of the system to be isolated for repairs without disrupting service.

The northern and southern areas of Subdistrict I are connected by a 20-inch main along World Drive. In the northern area, Pump Station “A” delivers water through one loop serving the Magic Kingdom and another serving the surrounding resorts. The Fort Wilderness area is served by lines that branch off the second loop. In the southern area, Pump Stations B and D also deliver water to looped systems serving various activity areas. Subdistrict II uses two main loops to serve development in the Lake Buena Vista area.

The two subdistricts are interconnected at two points via 16-inch water mains and pressure regulating valves. Importation of water can occur from Subdistrict I to Subdistrict II under set loss-of-pressure conditions. The present water distribution system is sufficiently looped and pressurized to accommodate the level of projected development and fire protection needs during the next ten years. Extensions of both systems will be required to serve new development areas.

FIRE FLOWS

A major service provided by the distribution system is water for fire protection. In many cases, the demand imposed by fire protection dictates the design parameters for the system. A required fire flow of 3,500 gpm has been established for the RCID, based on Insurance Service Office (ISO) guidelines. The minimum acceptable system pressure during highest flow conditions has been established at 30 psi. Requirements for water storage are also related to fire flow needs. A four-hour duration for the needed fire flow plus net system demand has been established for each pump station. Most of the wells have emergency power supplies. Fire hydrants are located throughout the distribution network, providing sufficient coverage for fire protection.[2]

CAPACITY AND DEMAND

As previously noted, the data and analysis in this element utilize the planning horizons of 2015 and 2020 and Capital Improvement Program years (FY 2011 - FY2015). The CIP should be consulted for the most up-to-date and specific information about potable water projects planned within the District.

If all the wells connected to the central system were to operate concurrently at their maximum capacity, the system would produce 40,000 gpm, or 57.6 million gallons per day.[3] It is extremely unlikely that all wells and pump stations would ever operate at their design capacity simultaneously. However, even with several wells and a pump station out of service the system is capable of pumping a larger amount of water than what is permitted for withdrawal by the District's Consumptive Use Permit (CUP). The South Florida Water Management District (SFWMD) issued a renewed CUP to the District in June 2007, allowing a peak month withdrawal of 933.9 million gallons. The SFWMD further allows an annual withdrawal of 8.552 billion gallons of water, or 22.2 million gpd on an average day. Average-day withdrawal in 2009 was 16.23 mgd, up from 15.55 mgd for 2008.

Table 5-3 indicates the amount of water consumed on a yearly basis from 1990 through 2007. Table 5-3 also indicates the peak-month water demand during this time. Average daily water withdrawal actually declined slightly between 1990 and 1994 (although peak-day volumes increased). Increases occurred between 1994 and 1997, with a 27 percent increase in average-day use during this time. Consumption steadily increased from 1998 to 2000, then declined sharply in 2001. The decline is attributed to changes in the economy following 9/11, imposition of water restrictions due to drought, and conversion of additional areas to reclaimed water. Throughout most of the 2001-2007 timeframe, demand has been fairly constant, in the 14-16 MGD range. This is attributed to conservation measures and additional conversions to reclaimed water. During calendar year 2007, total consumptive use was 5.787 billion gallons, or about 71 percent of the amount permitted by SFWMD. Water use in the District exhibits significant seasonal variations. During 2007, the daily amount pumped during May was 37 percent greater than the daily amount pumped during February.

"Peaking factors" have been developed by the District to estimate water needs during periods of maximum

[2] *Wells 2, 2A, 6, 9, 10, 16, 17, 18, 19, and 21 have emergency power provisions*

[3] *The combined capacity of Pump Stations A, B, C, and D is about 43,000 gpm. The pump stations are designed for maximum fire flow needs, while the wells are designed for peak-day needs.*

demand. These factors reflect the ratio of water use during a peak day (or peak hour) to average day (or average hour) demand and are used for more detailed design studies of water infrastructure needs. Peak-day peaking factors range from 1.3 to 1.8, depending on land use; peak-hour peaking factors are as high as 6.0 for the water parks and are in the range of 2.0 to 3.0 for most uses.

Table 5-3: Annual Potable Water Use Characteristics: 1990 through 2007

Year	Average Daily Withdrawal (mgd)	Average Day in Peak Month (mgd)
1990	13.71	15.95
1991	13.33	14.05
1992	13.36	15.83
1993	13.17	15.72
1994	12.92	15.26
1995	14.16	16.84
1996	15.14	17.98
1997	16.48	18.40
1998	18.64	23.69
1999	19.18	22.10
2000	19.95	25.07
2001	14.61	16.56
2002	14.32	18.11
2003	13.47	14.89
2004	14.83	16.67
2005	15.39	17.87
2006	16.48	18.71
2007	15.85	17.53

Source: RCES, 2008

OPERATION AND MAINTENANCE

All water facilities in the District are maintained in excellent condition. Water quality is monitored regularly in accordance with state and federal procedures (the Conservation Element may be consulted for additional information on water quality). The District regulates land uses and activities in the vicinity of its wells to ensure that the potable water supply remains reliable. Conservation Element Policy 4.2 identifies basic use restrictions within a 200-feet radius, a 300-feet radius, and 400-feet radius of each potable water well.

WATER CONSERVATION MEASURES AND RECLAIMED WATER SYSTEM

Overview

Recognizing that groundwater is a limited resource, and one that is shared by other jurisdictions in Central Florida, the District has instituted a number of measures to reduce per capita water consumption. While the total volume of water consumed is projected to increase by the year 2013, the rate of increase is likely to drop as per capita use declines. The installation of water-saving plumbing fixtures, required by the RCID building and plumbing codes, will make an important contribution to conservation. Implementation of a drought management plan, continued development of the reclaimed water system, and increased emphasis on native vegetation in landscaping will also help mitigate future demands.

The District's 2006 application for renewal of its water use permit outlined the following conservation measures:

- Limitation of turf and ornamental irrigation hours (to night, when evaporation is lower).
- Use of Xeriscape principles (adopted in the District's Land Development Regulations).
- Requiring ultra-low volume plumbing in new construction.
- A preventative maintenance program that ensures leaks are detected and fixed.
- Requirements for rain-sensor overrides for new turf grass sprinkler systems.
- The use of reclaimed water for landscape irrigation, and for theme park wash-down.

The most significant conservation measure implemented during recent years is the development of a reclaimed water system, discussed below.

Reclaimed Water System

Construction of a reclaimed water system began in the early 1990s. Tertiary-quality effluent from the wastewater plant is distributed through a network of mains to irrigate turf grass, golf courses, and highway medians throughout the District. Reclaimed water in 2007 averaged 6.5 mgd; and has met almost 30% of the District's water resource needs for the past 10 years. Reclaimed water has completely eliminated the use of surface water withdrawn from canals for irrigation and has reduced potable water requirements for the resorts and theme parks constructed since 1995. The District expects to continue to rely on its reclaimed water system and anticipates it will provide over one-third of the District's future water resource needs.

The reclaimed water system consists of pumps and a network of distribution mains. Components of the system are illustrated in Figure 5-5. Storage is provided by three 5.0 million gallon tanks adjacent to the wastewater plant and by a privately-owned pond at the Bonnet Creek golf course. Additional storage capacity is planned. A pump station at the storage tanks delivers water to the distribution system and to the storage pond. A 42-inch line extends from the wastewater plant area east to World Drive, where it branches into several lines serving development areas.

The District has determined that existing demand for reclaimed water exceeds 7.0 mgd (annual average), and could potentially be as high as 11.0+ mgd upon "buildout" of future development areas. Extension of the system to established development areas will be required to realize this potential.

Reclaimed water use exhibits much greater seasonal variations than potable water use, since much more

irrigation water is required during hot and dry periods than during cool or wet periods. During periods of drought, less effluent is directed to the rapid infiltration basins and more is directed to the reuse system; conversely, during periods of wet weather, the rapid infiltration basins receive the larger share of water.

Potential Future Conservation Measures

The District continues to explore other methods of water reuse and conservation. These include the use of membrane treatment technologies at the treatment plant or within the distribution system to generate effluent of sufficient quality for higher end uses, such as cooling water for industrial processes, lake augmentation, wetlands augmentation, and possibly aquifer storage and recovery. Such improvements could further mitigate the impacts of groundwater withdrawals.

WATER DEMAND PROJECTIONS and the 10-YEAR WATER SUPPLY FACILITIES WORK PLAN

Introduction

In accordance with the requirements of Section 163.3177(6)(c), Florida Statutes, the Reedy Creek Improvement District (RCID) must include within the Infrastructure Element of its Comprehensive Plan a water supply facilities work plan for at least a 10-year planning period for constructing the necessary public, private, and regional water supply facilities to serve existing and new development. This plan must be coordinated with the Upper Kissimmee Basin Water Supply Plan (as prepared by South Florida Water Management District [SFWMD]).

This plan is intended to be one of many that will be generated by RCID over the coming decades and it is intended to provide flexibility and adaptability to the constantly changing water supply situation in the Central Florida area.

Background

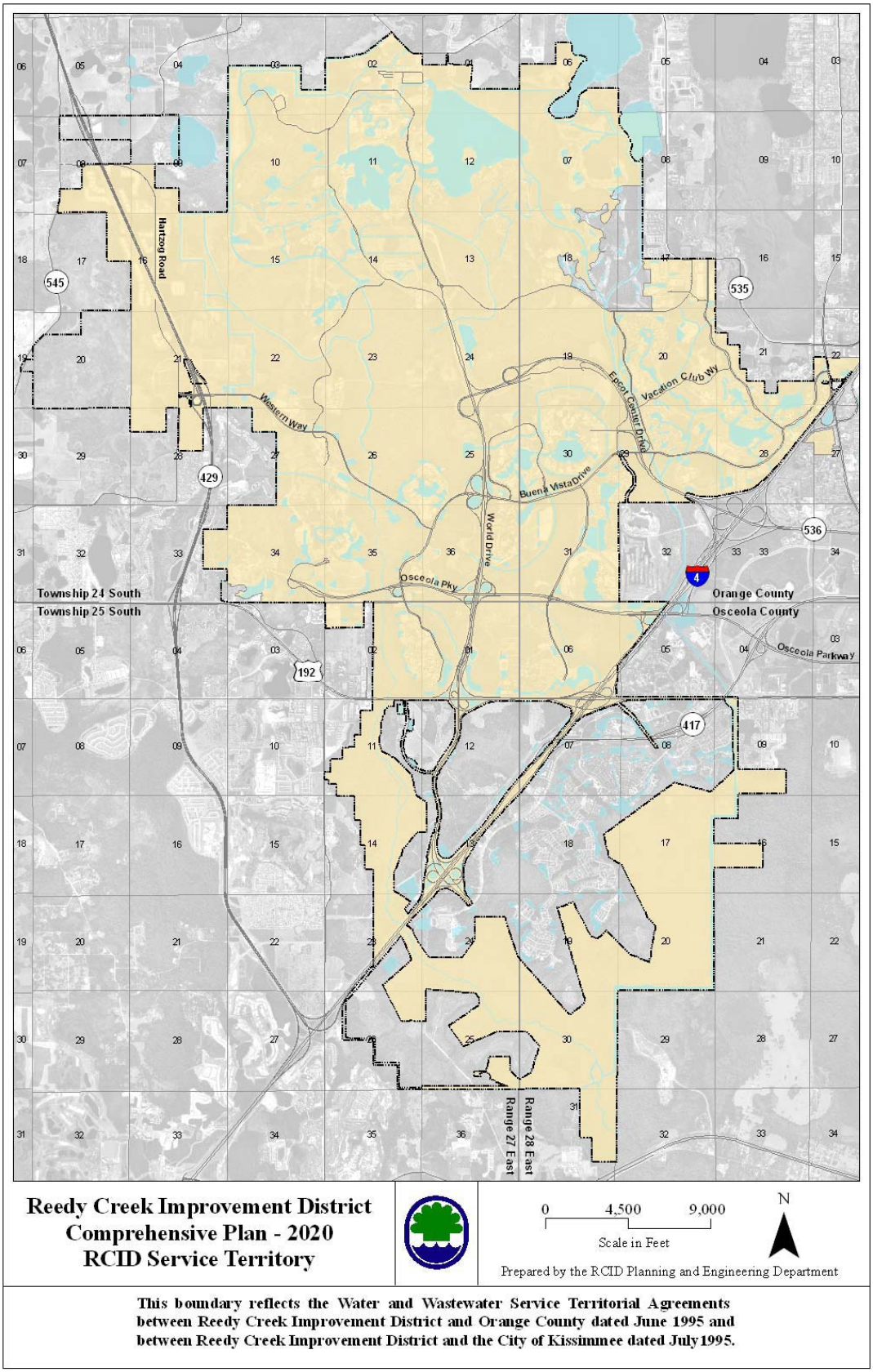
Potable Water

RCID was issued Water Use Permit, Number 48-00009-W, by the SFWMD in June 2007, which expires in May 2027. That permit has an annual allocation of 8,103 million gallons (MG) – which equates to an average day use of 22.2 MGD – and maximum monthly allocation of 933.888 MG (about 31 MGD average day flow for the maximum month). The permit contains a number of limiting conditions; one that specifically applies to water supply planning is Condition No. 25:

> Should the Permittee determine that the groundwater allocations in this permit are insufficient to meet its demands beyond 2013, the Permittee shall also develop, in partnership with other Permittees or by itself, one or more Alternative Water Supply (AWS) source(s) needed to meet all of the Permittee's public supply water demands through 2027 that are not met by the allocations authorized by the District.

RCID does not purchase water from other utilities and is entirely self sufficient in water supply and distribution. With just a few exceptions, RCID serves only those customers within its territorial boundary. Those exceptions are served under a territorial service agreement between RCID and Orange County.

Figure 5-2: RCID Water Service Territory



Reclaimed Water

By the early 1990's, discharge of treated wastewater to surface waters was on the decline in Central Florida due to permitting pressures. RCID was one of many utilities that began construction of zero-discharge types of wastewater reuse systems in response to the permitting constraints. The first of these for RCID was a groundwater recharge system that consisted of 85 Rapid Infiltration Basins (RIBs). These basins allow highly treated wastewater to percolate through surficial sands which overlay the UFA. This practice provides some return of the withdrawn groundwater to its source. Studies by the USGS (O'Reilly et al) demonstrated that approximately 70% of the applied water to the RCID RIBs reached the UFA as recharge. The balance recharges the surficial aquifer.

A second zero-discharge system was employed by RCID in 1993 – the reclaimed water distribution system, which provides water for non-potable purposes, principally irrigation of turf grass and landscaping. This system has grown annually in size and extent since the initial backbone of the piping was installed in the early 1990's. The reuse system, as it is commonly known, provides 25% to 30% of the District's water resource needs and is used by 80% of the irrigated areas throughout the District. The distribution system rivals that of the potable system in extent and line size and is operated at the same pressure. New development within RCID is required to connect to the system. Because of these attributes, the reuse system has become a second water supply source for RCID.

Level of Service Standards

Level of service standards for potable water are shown in Table 5-4. The level of service standards differentiate between the various classes of resort hotels (luxury/deluxe, first class, and moderate/economy), other resorts (interval ownership units and campground accommodations), and between theme parks and water parks. These standards are used when evaluating potable water use for all proposals for future development.

Table 5-4: Level of Service Standards for Potable Water

Land Use		Unit	Gallons per Day
Residential		Dwelling	350
Hotel (general)		Keys	200
	Luxury / Deluxe	Keys	250
	First Class	Keys	200
	Moderate / Economy	Keys	150
Other Resort		Keys	250
Convention Space		Square Foot	0.25
Support / Office		Square Foot	0.25
Retail / General Commercial		Square Foot	0.30
Restaurant		Seat	25
Theme Parks (general)		Guest	50
Theme Parks (water)		Guest	75

Demand Forecast – Potable Water

Means and methods for demand predictions with RCID are atypical. RCID's customer base is almost entirely commercial in nature (99+ %) and grows in response to planned developments by the principal landowners. There is virtually no residential development within RCID and the District has no plans for future residential service. The commercial development consists of guest accommodations (hotels and vacation ownership units), theme parks, water parks, support facilities, employee offices, as well as typical commercial activities such as restaurants, retail outlets and gas stations. Because of the nature of the customer base within RCID the normal methods of predicting demand from population growth by traffic zone does not apply to RCID. Instead, RCID has worked with the landowners to determine the appropriate pace of future development and predicted water supply needs on this basis.

For the recently issued Water Use Permit from SFWMD, RCID predicted a potable water demand of 23.8 MGD for the 2026 timeframe in the permit application. This demand was based on the summation of the planned and existing commercial development. RCID's Water Use Permit was issued based on the demand forecasts for the year 2013 - 22.2 MGD. Therefore it seems logical to assume that the demand for 2018 will be somewhere between these two figures (22.2 MGD and 23.8 MGD).

In the *Kissimmee Basin Water Supply Plan - Update 2005-2006*, groundwater demands for RCID were estimated at 23.4 MGD for the 2025 timeframe.

Table 5-5 below is a summary of the projected demands by development category for RCID for the2020 timeframe. The demand categories mimic those in the Water Use Permit application and subsequent re-submittal for the 2013 demand projections.

Table 5-5: Projected Maximum Potable Water Demand (million gallons per day)

Year		Average Day)	Gallons withdrawn per year (billions)	Peak-month factor	Average day in peak month
January 1, 2010		16.23	5,924	1.25	20.288
	Projects completed in 2009 or under construction in to date	0.117			
	Development 2010-2015)	2.700			
	Attendance Growth (2010-2015)	0.560			
January 1, 2016		19.607	7.157	1.25	24.509
	Development (2016-2020)	3.755			
	Attendance Growth (2016-2020)	0.560			
December 31, 2020		23.922	8.732	1.25	29.903
Permitted Withdrawal (SFWMD)		22.20	8.100		30.125
Projected 2020 Deficit		1.722			

Note
Figures do not reflect potential reduced withdrawal due to implementation of the Districts 10-Year Water Supply Facilities Work Plan program which is projected to reduce withdrawals by 1.772 MGD by 2018, thus keeping the District in compliance with its permitted withdrawal.

Groundwater demands for RCID averaged 16.23 MGD in 2009. Adding the projected demand from the above table to this figure results in a total projected demand for 2020 of 23.922 MGD as indicated in Table 5-5 above. This value is about 1.722 MGD above the current groundwater allocation of 22.2 MGD and therefore a slight deficit is predicted for 2020 for RCID.

Of course, should development within RCID proceed at a different pace than projected herein, the deficit could shrink or expand. The above is based on a fairly aggressive development plan and therefore RCID believes the prediction of a deficit is conservative, yet prudent for planning purposes.

Demand Forecast – Reclaimed Water

Because reclaimed water plays such a vital role in the water resources of the District, it is prudent that the supply and demand forecast for this resource be included in the analysis.

For more than 10 years, reclaimed water has met over 25% of the total water resource demands of the District, and closer to 30% for the past 7 years. Table 5-6 below indicates the historic consumption of reclaimed water to meet non-potable purposes, and the amount of water discharged to the RIBs. Table 5-6 also indicates the contribution that reclaimed water makes to the total water resource picture for RCID.

The last column of the table indicates the percentage of wastewater generated from the consumed potable water. The overall trend in percent returned wastewater is increasing because of the RCID policy that requires new development to use reclaimed water for non-potable purposes. This trend is expected to continue to increase in the future until a maximum of about 85%-90% of non-potable needs will be met with reclaimed

water.

Table 5-6: Historic Use of Reclaimed Water

Year	Volume to Reuse (MGD AADF)	Volume to RIBs (MGD AADF)	Total Wastewater Volume (MGD AADF)	Total Potable or Groundwater Volume (MGD AADF)	Percent of Total Demand Met by Reuse System	Percent of Wastewater Returned from Potable Water Consumed
1998	4.933	5.781	10.714	18.132	21.4	59.1
1999	5.294	5.614	10.908	19.175	21.6	56.9
2000	6.186	4.577	10.763	20.008	23.6	53.8
2001	5.923	3.973	9.896	14.614	28.8	67.7
2002	5.842	4.307	10.149	14.318	29.0	70.9
2003	5.207	5.101	10.308	13.466	27.9	76.5
2004	5.903	5.575	11.478	14.871	28.4	77.2
2005	5.749	5.417	11.166	15.392	27.2	72.2
2006	6.420	4.716	11.136	16.300	28.3	68.3
2007	6.529	5.891	12.420	15.850	29.2	78.4
Averages	**5.799**	**5.095**	**10.894**	**16.213**	**26.3**	**67.2**

Demand forecasting for reclaimed water within RCID is somewhat like the potable water forecasting and is a function of the planned development and the associated irrigated area. Based on historical development, RCID has typically irrigated 22% of its developed acreage. Average application rates have been 0.75 to 0.80 inches per week. The development outlined in Table 5-5 is estimated to have a total area of roughly 2,688 acres and therefore the irrigation demand is estimated to be about 1.77 MGD, based on 591 irrigated acres (22%) and an application rate of 0.775 inches per week. The development proposed in Table 5-5 will demand an estimated 7.692 MGD of water that has the potential to be returned to the sewer system. If we conservatively assume that 80% of this water will be returned to the sewer system and hence made suitable for reuse purposes, then the proposed development will generate an estimated 6.154 MGD of additional wastewater. Thus new development will generate 4.384 MGD of reclaimed water in excess of what is needed for landscaping irrigation.

By 2020, potable water demand is expected to be 23.9 MGD; wastewater generation is expected to be 18.3 MGD with reclaimed water demands in the 8 to 9 MGD range, depending on weather and other factors. This means that 9.3 to 10.3 MGD of reclaimed water will be available for RIB recharge of the aquifers or for other purposes.

In the RCID Water Use Permit, condition number 28 requires that RCID use at least 30% of its treated wastewater for aquifer recharge via the RIBs. Therefore by 2020, if wastewater volumes are at 18.3 MGD, then at least 5.5 MGD will be required for discharge to the RIBs to meet this condition. The balance of the water destined for RIB recharge could be used for other purposes, including irrigation and other non-potable demands, and the volume should range between 3.8 and 4.8 MGD. This “discretionary” reclaimed water could be used to offset the forecasted water supply deficit for 2020.

Supply Deficit Planning

There are numerous ways for RCID to plan for meeting the forecast supply deficit for 2018. These include:

- Seeking additional groundwater allocation from the UFA
- Seeking additional groundwater from the Lower Floridan Aquifer (LFA)
- Conservation and demand reduction
- Conversion of non-potable uses to reclaimed water
- Development of alternative surface water supplies (Kissimmee River or St. Johns River)
- Brackish and salt water sources
- Purchase water from a neighboring utility

For the past 5+ years, RCID has been evaluating these options and discovered the following:

- It is unlikely that the UFA will be allocated for any additional withdrawals, since modeling results indicate that impacts to wetlands and surface waters will not be acceptable for volumes beyond the 2013 allocations currently permitted.

- The LFA is not well confined within the RCID and therefore withdrawals from this source would likely result in similar wetland and surface water impacts. Permitting this source will therefore be difficult and unlikely.

- Conservation is a viable and easily implemented option and will continue to be a mechanism and practice for RCID. However, RCID has had conservation measures in place for over a decade and believes that most of the gains have been realized. A summary of the key changes are as follows:

    - The RCID *Epcot Plumbing Code*, Section 604.4, requires the use of low water using plumbing fixtures in new construction.

    - Per RCID Resolution 370, irrigation with potable water is not allowed between the hours of 10:00 AM and 4:00 PM. This was subsequently modified by RCID Resolution 479 to also limit irrigation to two (2) days per week in accordance with SFWMD Order 2007-870-DAO-WS.

    - RCID Land Development Regulation 4-50.4 requires all new irrigation systems to use reclaimed water for irrigation if available or use native plant material in accordance with Xeriscaping policy of the SFWMD.

    - As a result of the 2000-2001 drought, the theme parks within RCID stopped using potable water for hardscape wash-down and converted to reclaimed water. Also, all non-recirculating fountains /water features within RCID were converted to re-circulating or were discontinued. These practices have continued since the end of the drought.

    - The bulk of the irrigation within RCID, including reclaimed irrigation, is controlled by a computerized system that only applies that amount of water necessary to meet the plant requirements. This helps ensures that irrigation is as efficient as possible.

Due to the extent of the above measures, it is believed that future additional conservation measures will have minimal impact on new and future development. Future goals to significantly enhance conservation would require the retrofitting of all existing facilities with low water use fixtures and requiring all irrigation to be computer controlled.

- Conversion of non-potable uses of groundwater to reclaimed water has a high potential for RCID and appears to be the easiest and least costly to implement. An estimated 350 to 400 acres of irrigated land exists as candidate sites for conversion; additionally, up to 0.75 MGD of cooling tower makeup water (for evaporative losses) is available for conversion, most of which exists at four large centralized facilities owned by RCID.

- RCID believes that surface water sources, such as the Kissimmee River, may play a role in providing some future water supply. Consequently RCID intends to become a partner in the regional water supply plan for the development of the Kissimmee River. This is expected to be a joint effort between the Water Management Districts and the large local utilities in the Orange, Polk and Osceola County areas. However, the quantity of water available from this source is currently undefined and there is competition for this water from the Lake Okeechobee and Everglades Restoration efforts.

- Brackish and salt water sources are not readily available to RCID and would require large and lengthy transmission mains as well as expensive treatment requirements (even if used only for reclaimed water augmentation). Disposal of the brine from the desalting process will also pose a significant challenge. All of the known groundwater under RCID is non-brackish and the nearest source is at least 40 miles distant. While brackish and salt water sources may be an ultimate answer for RCID and Central Florida, these sources do not appear to be likely candidates within the 10 year planning horizon.

- Purchasing water from the nearby local utilities is a viable option and RCID currently has interconnections with Orange County Utilities and Toho Water Authority. Additional interconnection sites with these utilities are under consideration. However, these utilities face the same water supply challenges as RCID, and perhaps more acutely. Therefore the quantity of water that may be available for purchase from these entities will likely be limited in both volume and duration.

Reclaimed Water Conversions

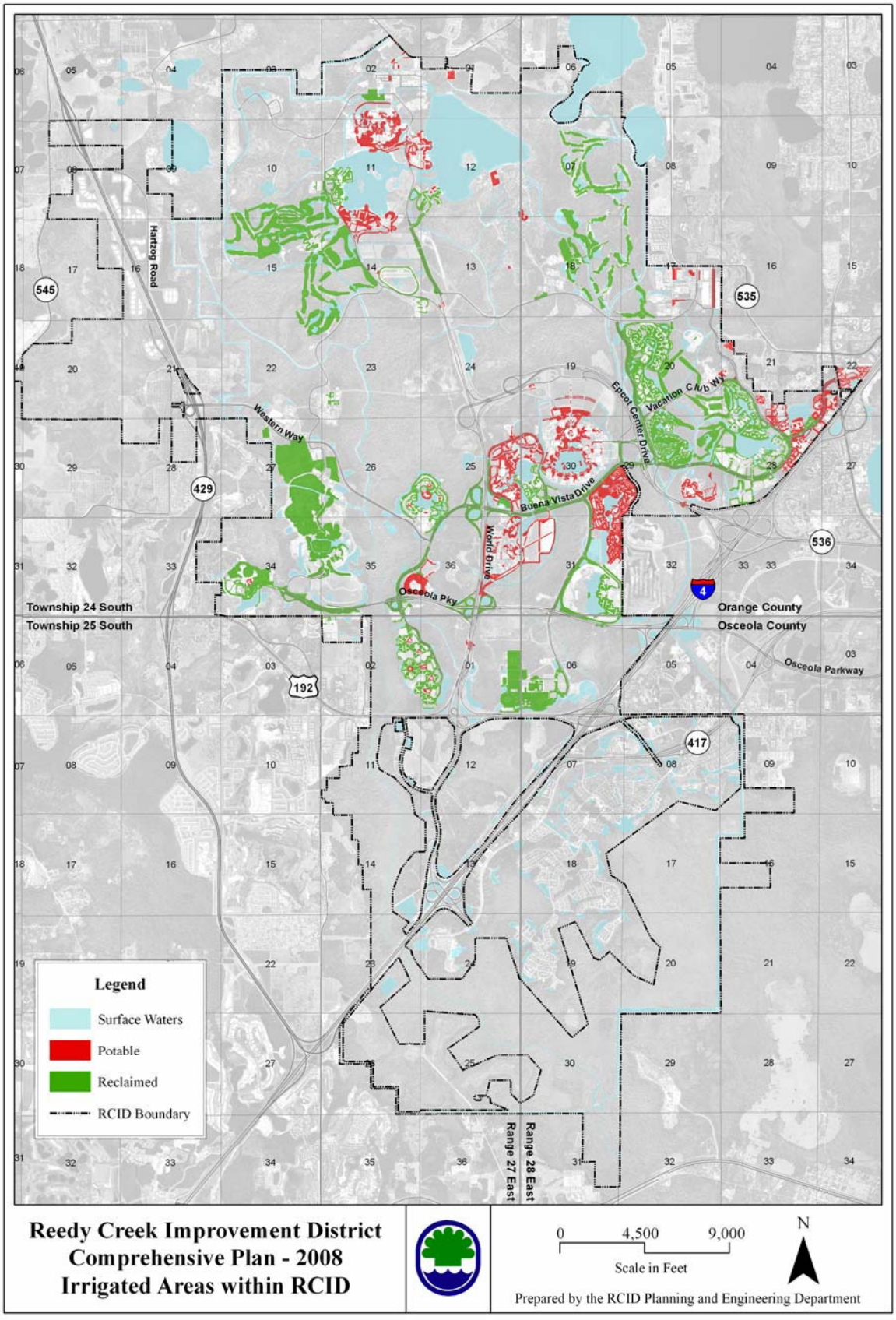
RCID developed a master plan for conversion of the older irrigated portions of the property to reclaimed water in 2002. This plan was reviewed and updated for this analysis. The candidate properties have not changed and the estimated reduction in potable water demand resulting in the conversions has likewise remained about the same.

Table 5-7 below presents the candidate sites, a brief description of the project scope, the estimated irrigated area and the estimated annual average irrigation demand. Table 5-7 is an edited version of all of the parcels within RCID using groundwater for irrigation. Some sites were deemed too small or too remote or a combination of both to warrant extension of reclaimed mains for service. The excluded sites constituted a total of only 16 acres. If RCID is successful in converting all candidate sites listed below, then over 99% of the irrigated areas would be serviced with reclaimed water. Figure 5-4 immediately following is a map that depicts the irrigated areas within RCID and distinguishes those sites irrigated with reclaimed water in purple and those with potable groundwater in blue. Blue colored sites are candidates for conversion to reclaimed water.

Table 5-7: Candidate Irrigation Sites for Conversion to Reclaimed Water

Site Name	Irrigated Acres	Project Description	Estimated Volume (gpd AADF)
Administration Area	12	Extend pipeline from Vista Blvd.	37,200
Buena Vista Palace Hotel	7	6-inch pipeline across Buena Vista Drive	21,700
RCID Fire Station No. 4	1.8	4-inch pipeline up Buena Vista Dr.	5,580
Blizzard Beach Water Park	19.5	On-Site pipeline extensions	60,450
Caribbean Beach Resort	69.8	On-Site pipeline extensions	216,380
Contemporary Hotel	12.6	Main extension down World Drive	39,060
Studio Theme Park	32	Main extensions from World Drive & Buena Vista Drive	99,200
Epcot Theme Park	44	Main extension from World Drive	136,400
Magic Kingdom Theme Park	40	Pipeline extensions on east & west sides	124,000
Magic Kingdom Cast Parking	1.2	Line extensions from Floridian Way	3,720
Magic Kingdom Toll Plaza	0.3	Line extensions from World Drive	930
Magic Kingdom Main Parking Lot	1.8	Line extensions from World Drive	5,580
Polynesian Resort	21.2	Extend 8-inch main along 7 Seas Drive	65,720
Ticket & Transportation Center	5.6	Extend 8-inch main along 7 Seas Drive	17,360
Swan Hotel	8.1	Extend main from World Drive	25,110
Dolphin Hotel	11.1	Extend main from World Drive	34,410
Yacht & Beach Club Resorts	17.5	Concurrent with main for EPCOT west side	54,250
Typhoon Lagoon	7.8	On-site pipeline extensions	24,180
AAU on Hotel Plaza Blvd.	1.9	Extend pipeline up Hotel Plaza Blvd.	5,890
Best Western	2.8	Extend pipeline up Hotel Plaza Blvd.	8,680
DoubleTree Guest Suites	5.1	Extend pipeline up Hotel Plaza Blvd.	15,810
Regal Sun Hotel	4	Extend pipeline up Hotel Plaza Blvd.	12,400
Holiday Inn	1.5	Extend pipeline up Hotel Plaza Blvd.	4,650
Hilton Hotel	5.5	Extend pipeline up Hotel Plaza Blvd.	17,050
Hotel Royal Plaza	1.4	Extend pipeline up Hotel Plaza Blvd.	4,340
Casting Building	2.5	Extend 4” pipe across Buena Vista Dr.	7,750
SunTrust Building	2.1	Extend 4” pipe across Buena Vista Dr.	6,510
WDW & RCID Roadways	8.1	Various line extensions	25,110
Totals	**343.6**		**1,079,420**

Figure 5-3: Irrigated Areas within RCID



The irrigated areas listed in Table 5-7 were derived from a review of aerial photography, local knowledge of the irrigation systems and their coverage, and GIS software that was used to determine polygons and calculate areas of each. The estimated annual irrigation volume was based on an average application rate of 0.8 inches per week, which is the historic average rate for irrigation systems at RCID. The above volumetric total was cross-checked against 2007 actual irrigation volumes (metered values) and a good correlation was found.

Nearly all Walt Disney Company and RCID irrigation systems are computer controlled with a weather driven system that takes into account evapotranspiration (calculated using temperature, relative humidity, solar radiation, and wind run), rain fall, vegetation type, soil type, slope, aspect, etc. This system allows the exact amount of irrigation to be applied for the given conditions and ensures the resource is conserved. Both potable and reclaimed water sourced irrigation systems employ the same control mechanism. All Walt Disney Company and RCID developments and road rights-of-way since 1989 utilize a computerized, weather driven irrigation system. All new development within RICD, regardless of ownership, will be required to utilize a weather driven irrigation system as will all existing developments at the time of conversion from potable water irrigation to reclaimed water irrigation.

Many of the irrigation system conversions to reclaimed water proposed herein will require a joint effort between the various landowners/lease holders and RCID for them to become effective.

As Table 5.7 above indicates, conversion of the almost 350 acres of landscape irrigation to reclaimed water will reduce groundwater withdrawals by over 1 MGD on average. Of course, during dry years, the volume will increase and during wet years, it will decrease. But on average, RCID believes that reduction in over 1 MGD of groundwater withdrawal can be realized if the above conversions are accomplished.

The second group of candidate conversions to reclaimed water is the RCID cooling towers. RCID owns and operates centralized cooling facilities at four locations: the North Service Area, Epcot and Studio Theme Parks and a satellite facility located near the Contemporary Hotel. Review of the metered data for the make-up water consumed by these facilities to off-set evaporative losses shows a potential demand reduction of about 0.72 MGD exists if all of the facilities were converted to reclaimed water. Table 5-8 below provides some details.

Table 5-8: RCID Cooling Tower Conversions

Location	Project Description	Makeup Demand (gpd AADF)
North Service Area Central Energy Plant	Install pipe section, manipulate valves	300,000
Contemporary Hotel	New main down World Drive from Floridian Way	50,000
Epcot Central Energy Plant	Install pipe section, manipulate valves	250,000
Studios Central Energy Plant	New main from World Drive to Studios CEP	120,000
Total		**720,000**

Evaporative losses vary greatly with the seasons and cooling load and will peak in the summer period as much as three times the average, and may be nearly non-existent on cold winter days. The above figures were

derived from metered data and are intended to represent annual average conditions. Cooling tower conversions are mostly the responsibility of RCID, but coordination with the various landowners is expected.

Between the cooling tower conversions and the irrigation system conversions, RCID believes it has the potential to reduce groundwater withdrawals by 1.9 +/- MGD. This exceeds the forecast deficit by about 0.6 MGD and provides some cushion for extreme weather events and to counter any estimating errors. As indicated above, RCID should have between 3.8 and 4.8 MGD of reclaimed water available to meet this additional demand.

Reclaimed Conversions Implementation Plan

The majority of the conversion projects involve extension of the reclaimed water distribution system to the various customer points of connection. Many of these involve a single pipeline. A few will benefit from economies of scale where a single pipeline extension will serve multiple customers. For example, a pipeline extension from World Drive to the west side of the Epcot Theme Park will provide conversion for the Yacht & Beach Resorts and associated vacation ownership units, as well as the Epcot Theme Park. Similarly, a pipeline extension from Floridian Way to the Contemporary Hotel Satellite Chiller facility would provide service to the cooling towers, the Contemporary Hotel and the east side of the Magic Kingdom Theme Park.

With a deficit of about 1.3 MGD AADF to make up in the period 2015 to 2020, the rate of conversion from potable water irrigation to reclaimed water irrigation plus cooling tower conversions needs to, at a minimum, average 0.26 MGD AADF per year for the period 2014 to 2019. This assumes a linear rate of development from 2015 to 2020. It is recommended that the goal be in the range of 0.30 to 0.40 MGD per year as development isn't always linear.

5-96 below provides a proposed implementation plan for the identified conversions. It is the intention of RCID to accomplish these conversions in a steady and consistent pace over the course of the next 8-10 years. With the exception of Caribbean Beach, most of the identified locations have a single point of connection per named entity, which will facilitate connection and minimize the cost of the effort.

Table 5-9: Proposed Implementation Plan for Reclaimed Water Conversions

Project Description	Locations to be Converted	Conversion (mgd AADF)	Cumulative Conversion (mgd AADF)
North Service Area Central Energy Plant	Chilled Water & Co-Gen Cooing Towers	0.300	0.300
1000 LF of 8-inch main on 7 Seas Drive.	Ticket & Transportation Center & Polynesian Resort	0.066	0.366
4-inch & 6-inch mains on Buena Vista Dr.	Buena Vista Palace Hotel & Fire Station No. 4	0.027	0.393
4-inch main extensions on Buena Vista Dr.	SunTrust & Casting Buildings	0.014	0.407
6-inch main extensions from World Dr.	Swan & Dolphin Hotels	0.060	0.467
12-inch main along Epcot Resorts Blvd from World Dr	Epcot, ECEP Cooling Towers, Yacht & Beach Club Resort & DVC	0.431	0.898
4-inch, 6-inch & 8-inch main extensions on Hotel Plaza Blvd.	AAU, Best Western, DoubleTree, Holiday Inn, Regal Sun, Hilton, Royal Plaza	0.069	0.967
8-inch & 10-inch main extensions from World Dr. & Buena Vista Dr.	Studio Theme Park & Studio Cooling Towers	0.219	1.186
4-inch & 6-inch on-site mains	Caribbean Beach Resort	0.216	1.402
12-inch main extension on World Dr. from Floridian Way/Center Dr.	Contemporary Hotel, Magic Kingdom, Contemporary Hotel Cooling Towers	0.213	1.615
2-inch main from World Dr.	Magic Kingdom Toll Plaza	0.001	1.616
2-inch, 4-inch & 6-inch on-site line extensions	Blizzard Beach & Typhoon Lagoon	0.085	1.701
2-inch & 3-inch main extensions from World Dr. and Floridian Way	Magic Kingdom Cast Parking & Magic Kingdom Main Parking Lots	0.009	1.710
6-inch & 8-inch main extension on Vista Blvd.	Administration Area	0.037	1.747
2-inch and 4-inch mains at various locations	RCID and WDW roadways	0.025	1.772

The above plan could be accelerated or delayed depending on circumstances and actual demands experienced during the course of the planning period.

Five-Year Schedule of Capital Improvements

Table 5-10 below provides the Five-Year Schedule of Capital Improvements to be implemented in the 2015 timeframe.

Table 5-10: Capital Improvement Schedule for Reclaimed Water Conversions (in thousands)

Project Description	Source	2011	2012	2013	2014	2015
1000 LF of 8-inch main on 7 Seas Dr 4-inch & 6-inch mains on Buena Vista Dr 4-inch main extensions on Buena Vista Dr 6-inch main extensions from World Dr 12-inch main along Epcot Resorts Blvd from World Dr 12-inch main along Epcot Resorts Blvd from World Dr 4-inch, 6-inch, & 8-inch main extensions on Hotel Plaza Blvd	Bond Funds (On Hand) or Net Revenues	$370	$590	$1,090	$910	$0

Notes:

Funding Source: Net Revenues = consist of sewer and reclaimed water sales, investment income, and miscellaneous revenues net of operating and maintenance expenses, reserves and replacements, and debt service.

Estimates reflect 2009 costs and have not been inflated to year of construction

Table 5-11 shows the financial capacity of the Utility Enterprise Fund to fund the programmed capital projects for all concurrency utilities. Sufficient bond proceeds are on hand to fund a portion of the potable and reuse water and sanitary sewer projects detailed in the Capital Improvements Element. Sufficient net revenues are projected to be generated from operations to fund all of the programmed improvements except for the expansion of the wastewater treatment plant and an under consideration biosolids / food waste to energy facility. The District anticipates issuing bonds to finance the expansion of the wastewater treatment plant and the biosolids / food waste to energy facility.. Sufficient bonding capacity is available to fund all capital costs as indicated in Table 5-11. Historically revenue transfers from the non-concurrency utilities have been used to cover any shortfall in revenues for bonding purposes and will be in the future if revenues fall short.

Table 5-11: Capital Costs versus Available Revenues – Utility Enterprise Fund (in thousands)

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Total Revenues	$42,170	$43,108	$46,060	$47,367	$48,626	$48,626
Total Operating Expenditures	23,165	24,656	25,821	27,834	28,842	28,967
Current Debt Service	17,024	17,575	18,961	18,961	18,962	18,962
Balance – Net Revenues	1,981	877	1,278	572	822	697
Prior Year Balance	0	1,981	2,858	4,136	4,708	5,530
Transfer from Other Utilities	0	0	0	0	0	0
Net Revenues Available for New Debt Service or Capital Outlays	**$1,981**	**$2,858**	**$4,136**	**$4,708**	**$5,530**	**$6,227**
Capital Costs – Potable and Reuse Water, Sanitary Sewer, and Solid Waste	$2,801	$920	$5,194	$8,090	$15,590	$3,230
Currently Available Bond Proceeds	8,169	5,368	4,448	0	0	0
(Net Capital Costs Requiring Funding) or Net Currently Available Bond Proceeds	**$5,368**	**$4,448**	**$(746)**	**$(8,836)**	**$(24,426)**	**$(27,656)**
Net Revenues Available for New Debt Service or Capital Outlays	**$1,981**	**$2,858**	**$4,136**	**$4,708**	**$5,530**	**$6,227**
Bonding Capacity	**$23,000**	**$34,000**	**$47,000**	**$46,000**	**$40,000**	**$45,000**

Additional Planning Efforts – *Kissimmee Basin Regional Water Supply Plan Update*

While it appears that RCID can meet its projected deficit in supply by completing the proposed conversions to reclaimed water, the current groundwater allocation is not guaranteed and therefore some uncertainty exists. Consequently, RCID intends to participate in and become a partner with the other local utilities in pursuing water from the alternative sources identified in the *Kissimmee Basin Regional Water Supply Plan Update* (KBRWSP) and other alternative sources under development by various regional groups. RCID may elect to pursue an allocation of 2 to 3 MGD from these alternative sources (if this quantity is available) as a means to secure its longer term future water supply and as insurance against the possibility of reductions in groundwater allocation.

The CROT group referred to in the KBRWSP has been supplanted by the STOPR group [City of St Cloud, Tohopekaliga Water Authority (TWA), Orange County Utilities (OCU), Polk County Utilities (PCU) and RCID]. This group has been working cooperatively on water supply projects and water use permitting issues for about three years. (The group successfully renewed their collective water use permits in June 2007). It meets at least weekly and has executed a number of agreements and memorandums of understanding to pursue alternative water supplies, conduct coordination with the water management districts, and to ensure water use permit compliance and reporting requirements are met and on schedule. The STOPR Group has also recently developed a set of alternative projects (about 20) to provide for their collective water supply needs beyond the 2013 timeframe. This list of alternatives was developed when the group learned of the results of the work conducted by SFWMD on the Kissimmee River Restoration and the Kissimmee Basin Modeling and

Operational Study (KBMOS). The findings showed that there would be inadequate and unreliable water supply available from the Kissimmee River. This finding was contrary to the KBRWSP direction, which focused much of the alternative water supply effort on obtaining water from the Kissimmee River. Consequently, much of the KBRWSP is in need of revision and updating.

The quantity of water available from the Kissimmee River and the location of the availability are currently unknown. SFWMD is currently evaluating the potential of the source and possible withdrawal locations. RCID is collaborating with the SFWMD and the other local utilities to develop a plan for the use of this resource once the evaluation of quantity and location is complete. If this project moves forward, it is expected that TWA will become the lead agency and that water made available from its source would be transported through the TWA distribution systems. It is currently unknown if the water would be raw, potable, or reclaimed quality.

The water supply alternatives list currently under development by STOPR and SFWMD is shown in Table 5-13. A status report on the projects included in Table 1, Appendix A of the KBRWSP is presented in Table 5-12. As indicated in the status column of Table 5-12, RCID is participating with its neighboring utilities (TWA and OCU) to develop the interconnections of our respective potable and reclaimed water systems, as mentioned in the KBRWSP. The reclaimed water projects involve interconnections between the various utilities' systems and the steps to move forward are just beginning with the negotiation and execution of interlocal agreements. The reclaimed water projects do not produce any additional water; they simply make each utility's existing reclaimed water available to neighboring utilities which may reduce the demands on groundwater sources by augmenting the total water supplies available to each separate utility. For example, during May and June when RCID landscape irrigation demands exceed its supply of reclaimed water, RCID could augment its irrigation demands with reclaimed water from OCU or TWA and not have to augment with groundwater as it does currently assuming OCU and TWA have surplus reclaimed water. Since the STOPR utilities all have a common groundwater source, anything that might reduce the withdrawals from that source is good for the group as well as for each individual utility.

Table 5-12: ***Kissimmee Basin Regional Water Supply Plan Update – Appendix A, Table 1***

County	Utility/Entity	Project	Water Source	Status
Orange	CROT Regional	South Bermuda – Osceola Pkwy Reclaimed Water Transmission Main	Reclaimed	**No direct RCID involvement.** Toho Water Authority has the lead in this project.
Orange	CROT Regional	Osceola Pkwy Reclaimed Water Transmission Main	Reclaimed	Toho Water Authority has the lead initiative; RCID intends to make an interconnection to this main when it is built.
Orange	CROT Regional	Osceola Pkwy Reclaimed Water Extension (TWA-RCID East)	Reclaimed	Toho Water Authority has the lead initiative; RCID intends to make an interconnection to this main when it is built.
Orange	CROT Regional	Osceola Pkwy Reclaimed Water Extension (TWA-RCID West)	Reclaimed	Toho Water Authority has the lead initiative; RCID intends to make an interconnection to this main when it is built.
Orange	CROT Regional	Buenaventura Lakes Wetland Impoundment	Reclaimed	**No RCID involvement;** mainly Toho Water Auth. and maybe St Cloud.
Orange	CROT Regional	Reedy Creek Augmentation System	Reclaimed	Initial analysis indicates that there is not enough volume and this is not a reliable source to make it a worthy pursuit for AWS
Orange	CROT Regional	Highway 532 Reclaimed Water Transmission Main	Reclaimed	**No direct RCID involvement**
Orange	CROT Regional	Vistana – RCID Reclaimed Water Transmission Main	Reclaimed	Under evaluation with OCU. RCID and OCU have finalized an interlocal agreement to allow this project and other similar projects to proceed
Orange	CROT Regional	RCID – Water Conserv II/Horizon West Reclaimed Water Transmission Main	Reclaimed	Under evaluation with OCU. RCID and OCU have finalized an interlocal agreement to allow this project and other similar projects to proceed
Orange	CROT Regional	WEDS – Osceola Pkwy Reclaimed Water Transmission Main	Reclaimed	**No direct RCID involvement**
Orange	CROT Regional	St Cloud Wholesale	Reclaimed	**No direct RCID involvement**
Orange	CROT Regional	WEDS Impoundment	Reclaimed	**No direct RCID involvement**
Orange	CROT Regional	Partin Ranch Impoundment (Kings Hwy)	Surface Supplies	**No direct RCID involvement**
Orange	CROT Regional	Shingle Creek Augmentation System Expansion	Surface Supplies	**No direct RCID involvement;** Toho Water Auth. Has implemented first phase for 4.0 MGD of augmentation to their system
Orange	CROT Regional	RCID Surface Water Impoundment # 1	Surface Supplies	Involves the use of Lake Norbow (entirely within RCID) for augmenting reclaimed water supply for RCID. Conceptual stage effort determined that it will require a pumping station. The need for this is not envisioned until 2018 or later.
Orange	CROT Regional	RCID Surface Water Impoundment # 2	Surface Supplies	Involves the use of Reedy Lake or select stormwater retention basins to be used to augment reclaimed water supplies for RCID. The need for this is not envisioned until 2018 or later.
Orange	CROT Regional	St Johns River at State Road 50 Water Supply Project	Surface Supplies	**No RCID involvement**
Orange	CROT Regional	St Johns River/Taylor Creek Reservoir Water Supply Project	Surface Supplies	**No RCID involvement**
Osceola	CROT Regional	Bull Creek Nonpotable Groundwater Supply	Brackish	**No direct RCID involvement**
Osceola	CROT Regional	Lake Tohopekaliga Nonpotable Water Supply	Surface Supplies	RCID working and cooperating with STOPR and WMDs to investigate and evaluate this source.
Osceola	CROT Regional	Lake Tohopekaliga Potable Water Supply	Surface Supplies	RCID working and cooperating with STOPR and WMDs to investigate and evaluate this source

Table 5-13: Alternative Water Supply Projects Currently Under Development by STOPR and SFWMD

Alt No.	Tier Rank	Water Supply Alternative	Source		Intended Use			Storage		Con-junc-tive Use	Other Comments
			SW	GW	Pot-able	Non Pot	Re-Chrg	Re-ser-voir	ASR/ GRD		
1	1	Cypress Lake Wellfield								Yes	Lower Floridan Aquifer source APT Test to be completed October 2008
2	1	Stormwater Capture						Poss-ibly		Yes	Revise state stormwater rule. Mostly new development, although retro possible. Could send to RIBs
3	1	Water Conservation								Yes	Depends on level of conservation. Utilities prefer a goal-based BMP basis. Separate residential and other uses.
4	1	Taylor Creek Reservoir								Yes	Inter-district transfer. Preliminary design phase
5	1	Permit Conversions								Yes	Regulation change needed. Entire region. CFCA component. Policy change similar to SWFWMD
6	2	South Osceola County Wellfield								Yes	CFCA southern boundary amendment needed.
7	2	Polk County S.E. Wellfield								Yes	CFCA southern boundary amended
8	2	Lake Kissimmee Surface Water								Yes	Lower volume may prove uneconomical. Reliability depends on size
9	2	Lake Hatchineha surface Water						Limit-ed		Yes	South to S-65, focus on northern areas
10	2	KBMOS+ (Potable)								Yes	Back-pumping and possibly in conjunction with structural changes in UKCOL. Modeling with SFWMD
11	2	KBMOS+ (Reclaimed & Recharge)								Yes	Back-pumping and possibly in conjunction with structural changes in UKCOL. Modeling with SFWMD
12	2	RIB Groundwater Recharge								Yes	Need certainty that recharge water can be credited to the re-charger. District transfer. WMD rule revision needed.
13	2	Wellfield Optimization								Yes	CFCA rule change needed. Increase pumpage, but keep impact same, or less.
14	2	Backpump South of Kissimmee River Restoration								Yes	Pipe north to Lake Kissimmee or a reservoir. Can pump from the river or a reservoir north of Lake Okeechobee
15	2	Polk County – Lower Floridan Ground Water								Yes	Needs rule modification
16	3	Brackish Aquifer Ground Water								Yes	
17	3	Desalination – Ground Water								Yes	
18	3	Agricultural Optimization								Yes	In conjunction with Permit Conversions
19	4	Desalination – Ocean								Yes	
20	none	Haines City – Sand Mine Conversion								Yes	72-acre reservoir
21	none	Polk County – Scan America								Yes	512 acres of interconnected lakes.

RCID intends to continue to be an active member in the STOPR Group and to collectively seek alternative water supplies through this cooperative effort. In addition to STOPR participation, RCID is working with the Central Florida Water Planning Group, which has a similar but slightly different agenda to develop alternative water supplies. This group includes the STOPR members, Orlando Utilities Commission, and the City of Cocoa. The CFWPG is developing an interlocal agreement and a scope of work from which it will hire consultant(s) to pursue water supply planning tasks.

Due to the infant nature of the CFWPG and the current lack of an executed agreement between STOPR and the water management districts for the attached list of alternative water supply projects, it is premature to identify the specific parties who will be responsible for the funding and construction of the proposed projects. Additionally, the quantity of water that may be available and its timing are also currently unknown. As RCID has indicated in its Ten Year Water Supply Plan, its permitted groundwater supply and its proposed conservation efforts via conversions to reclaimed water will provide it adequate water supply to meet all anticipated growth within the next ten years (thru 2020). In the interim time frame, RCID intends to work cooperatively with the STOPR group, the CFWPG and other organizations as may be developed, to pursue alternative water supplies for the local region to meet the regional needs beyond 2013.

Additional Planning Efforts – RCID

Conservation will continue to play a role in the water resources of RCID and the District will continue to pursue this through building codes, enforcement and periodic updates to the codes. Additional conservation may result in some demand reduction, but since the majority of the customer base is commercial, it is believed that the potential reduction will be minor, probably no greater than 2 to 3%. Because of the uncertainties in forecasting conservation measures, RCID does not intend to rely on conservation measures for significant demand reductions and therefore they have no quantification herein.

Future Goals and Objectives

In looking beyond 2020, it is apparent that any additional water demands beyond 24.1 MGD (22.2 MGD per Water Use Permit plus 1.9 MGD from reclaimed conversions) will have to be met with more strict conservation methods and/or water from an alternative water source. The simplest method to start with would be to adopt the following conservation objectives:

- All existing facilities within RCID shall convert to low water use plumbing fixtures that meet the maximum flow rate and consumption requirements of the RCID *Epcot Plumbing Code* prior to the time that RCID's total water demand reaches 24.1 MGD.

- All irrigation systems within RCID shall be equipped, maintained and operated with a rain sensor device or switch that overrides the irrigation system when adequate rainfall has occurred.

Summary

The most promising option for RCID to meet the demand deficit projected for the 2020 planning horizon is to convert irrigation and cooling tower makeup systems to reclaimed water. All other options have constraints, limitations and uncertainties associated with them that increase their risk. It appears that adequate reclaimed water will be available to meet the additional demand required of the proposed conversions.

RCID will continue to cooperate on a regional planning basis to develop additional alternative water supplies to

ensure its longer term resource needs are met and will continue to practice conservation.

SANITARY SEWER

OVERVIEW

Note: In accordance with Section 119.071(3), Florida Statues, maps of the RCID wastewater collection and treatment system are not provided herein due to the sensitive nature of these facilities and the security thereof.

The RCID is the primary purveyor of sanitary sewer services within the District boundaries and serves all development within the District except the support service complex south of the Animal Kingdom.[4] The District also provides wastewater services to an apartment complex in unincorporated Orange County (Vista Way) on a site formerly within District boundaries, to the CrossRoads commercial area (also formerly within District boundaries), and to a portion of Orange County's service area known as Horizon's West. All of the RCID's wastewater treatment and disposal facilities lie within District boundaries.

The predominant land uses in the service area are described in the Potable Water Subelement. Nearly all development is connected to the centralized wastewater system. There are a few exceptions where isolated development operates on septic systems (about four of the golf course comfort stations utilize septic tank systems).

Independent package plants and circulation systems are generally discouraged in the District but may be permitted within animal-related exhibits at the theme parks. This is necessary because the attributes of effluent from such exhibits differs from those for which the District's treatment plant was engineered. One such example serves a petting farm in the Magic Kingdom; another serves the hippo tank at the Animal Kingdom. These independent package plants are not permitted to treat human waste.

The District's initial wastewater treatment needs were met by a 3.3 mgd facility constructed on a 25-acre site in the west-central part of the District off of Bear Island Road. When it opened in 1970, that system served the Magic Kingdom theme park, the Bay Lake resorts, and the Lake Buena Vista hotels. Since that time, wastewater treatment needs have increased dramatically as a result of growth. The treatment plant was expanded to 6.0 mgd in 1981 to accommodate EPCOT Center and again in 1989 to 9.0 mgd to accommodate the Disney's Hollywood Studios and other new development. Capacity was increased to 15.0 mgd in 1993 to accommodate resorts and anticipated theme park and commercial development. The facility will undergo another expansion to 20 mgd within the next three years. A portion of this expansion has already been completed with the addition of new head-works, a third 3mm screen, and the addition of a grit removal process. These improvements were completed in 2007

In addition to capacity expansions, the system has been regularly upgraded in response to state and federal requirements for effluent quality. Several innovative measures have been used to comply with these requirements. During the last fifteen years, effluent disposal has shifted from a system which relied on wetlands for nutrient removal to a system which uses rapid infiltration basins and reclaimed water lines for treated wastewater percolation and irrigation. This system results in complete reuse of the treated effluent.

[4] *The support service area along Backstage Road south of the Animal Kingdom receives sewer services from the City of Kissimmee.*

REGULATORY FRAMEWORK

The Federal Water Pollution Control Act (PL 92-500) is the primary federal legislation relating to sanitary sewer service. The US Environmental Protection Agency (EPA) has responsibility for implementing this act. Florida has adopted legislation entitled Sewage Disposal Facilities: Advanced and Secondary Waste Treatment (Chapter 403.086) that implements the federal law on the state level. The Florida Department of Environmental Protection (FDEP) has the responsibility for implementing the state legislation and has adopted rules for the regulation of wastewater facilities (Chapter 62-600, Florida Administrative Code). The Florida Department of Health and Rehabilitation Services has adopted rules for septic tank and drainfield installations (Chapter 10D-6, Florida Administrative Code). The SFWMD is charged with implementing the FDEP rules as they apply to stormwater management. Within the RCID, the Planning and Engineering Department is responsible for ensuring compliance with state and federal standards.

WASTEWATER COLLECTION AND TRANSMISSION SYSTEM

The District's wastewater collection and transmission system consists of gravity sewers, lift stations, and force mains. The existing collection system connects the primary development areas with more than 85 principal and secondary lift stations. Each of the major activity areas in the District has a master pump station for pressurization of wastewater and delivery to the wastewater treatment plant via force main. Each station has between two and eight pumps for system reliability. Three major transmission systems convey wastewater to the treatment plant. One system serves the Magic Kingdom area and resorts, the second serves the Epcot/ Hollywood Studios area and Lake Buena Vista, and the third serves the Animal Kingdom part and associated resorts.

TREATMENT FACILITIES

Raw sewage enters the wastewater treatment plant and is treated through a series of physical, chemical and biological processes. The products of this process are reclaimed water and biosolids (sludge). The District uses a biological nutrient removal process for the liquid portion of the facility. Effluent (a clear liquid that may be returned to existing water bodies) from the RCID system meets the state's standards for tertiary treatment facilities. Biosolids (sludge) disposal is accomplished through an aerated static pile composting system, which generates a Class AA quality product (highest quality) as defined by FDEP.

Over the past two decades, the District has received numerous awards from the FDEP and the US Environmental Protection Agency for its wastewater plant operation and reuse system. Improvements to the plant during the early 1980s substantially reduced the nitrogen and phosphorus levels in treated effluent. Subsequent improvements during the 1990s allowed the District to switch from a wetlands disposal system to a rapid infiltration disposal system, discussed below. These improvements also facilitated the use of treated effluent for landscape irrigation through a reclaimed water system.

The FDEP issued a permit in 2007 for continued operation and expansion of the plant. The current permit expires on June 18, 2012. Effluent quality standards, as permitted by the FDEP and EPA, are shown in Table 5-14.

Table 5-14: Wastewater Treatment Plant Characteristics

Attributes		Standards
Plant Capacity		15.0
Type		Tertiary (Nutrient Removal)
Effluent Standards		
	5-Day $CBOD_5$	5 mg/l (*)
	Total Suspended Solids	5 mg/l (*)
	Total Nitrogen	6 mg/l (*)
	Total Phosphorus	1 mg/l (*)
	Fecal Coliform	High level disinfection as defined in 62-600 F.A.C.
	pH	6.0-8.5

Notes:
Standards are for effluent exiting the treatment plant. Standards for CBOD-5, TSS, and fecal coliform are based on monthly averages
(*) Standards vary depending on the period of record evaluated.

As mentioned above, the District allows septic tanks in remote areas; only four septic tank systems are in service within the District today. All existing septic tanks have been approved by the Orange County Health Department. At the time new permits are issued, the County conducts tests to determine soil suitability and predict drain field functionality. Septic tanks are not allowed in areas of unsuitable soils unless appropriate approved modifications of soils are completed.

EFFLUENT DISPOSAL SYSTEM

Once the physical, biological and chemical processes have been completed, reclaimed water is utilized through two primary methods. On average, about 45 percent of the reclaimed water is directed to a rapid infiltration basin (RIB) system in the northwest part of the District. The RIBs consist of 85 one-acre ponds with lined sides and sandy bottoms. A rotational cycle is used to balance the flow of reclaimed water to each pond and ensure that sufficient time is provided for percolation. The balance of the reclaimed water is utilized in the District's reclaimed water distribution system (or reuse system). As discussed earlier in this element, reclaimed water is directed to a network of distribution mains which irrigates the tree farm, medians and rights of way, golf courses, and landscaping in all new development areas, in most of the developments constructed since 1990, and n many of the older developed areas.

The proportion of wastewater directed to the rapid infiltration basins versus the reclaimed water distribution system varies seasonally. Reclaimed water flows are highest during hot, dry periods, when a large amount of water is needed for irrigation. As of 2009, flows to the basins averaged about 5.684 mgd while flows to the reclaimed system averaged about 5.949 mgd.

The RIBs are permitted to accept 12.5 mgd, but were designed and modeled to accept 17.5 mgd. Actual flows are not expected to reach these volumes since the reuse system will be handling a growing share of the effluent as new development comes on line. The District's operating permit allows the reclaimed water

system to carry an average annual flow of 10.0 mgd. Due to economic and practical considerations, it is unlikely that this quantity will be reached in the foreseeable future.

CAPACITY AND DEMAND

As previously noted, this element focuses on five- and ten-year planning horizons. Future updates of the Capital Improvements Element may result in changes to the descriptions of proposed projects. Although this element will be updated for internal consistency, the Capital Improvements Element should be consulted for the most comprehensive data on future wastewater improvements.

The wastewater treatment plant presently has a capacity of 15.0 mgd, or 5.48 billion gallons per year. Because of projected future flows, modifications to the plant and various components of the collection system (i.e., lift stations) are planned. These modifications will increase plant capacity 20.0 mgd and will be undertaken once demand dictates the need for the additional capacity. The permit from FDEP for these improvements is currently in-hand.

Wastewater flows during the 1990s and 2000s are shown in Table 5-15. The volume treated at the plant grew at a fairly steady rate for the first ten years of this period, averaging about 6 percent a year. Flows during the current decade have been fairly flat. Peak-month flows fluctuated similarly over the period.

Table 5-15: Wastewater Flow Characteristics:

Year	Average Daily Flow (mgd)	Average Day during Peak Month (mgd)
1991	7.335	8.134
1992	7.488	8.408
1993	8.095	8.795
1994	8.425	9.454
1995	9.226	10.555
1996	9.611	10.563
1997	9.873	11.071
1998	10.714	12.028
1999	10.929	12.071
2000	11.078	12.562
2001	9.890	11.436
2002	10.149	11.545
2003	10.308	12.229
2004	11.538	12.728
2005	11.166	12.467
2006	11.067	12.375
2007	12.467	13.904

In 2007, average-day wastewater flows were about 79 percent of potable water flows. This is about the same or slightly lower than the percentage in most cities with separated sewer systems, in part due to the use of potable water for irrigation , but also because of the relatively low incidence of infiltration and inflow on District sewer mains. The gap between potable water and wastewater flow volumes should become narrower as more of the District is connected to the reclaimed water system.

OPERATION AND MAINTENANCE

The wastewater collection, treatment, and disposal system is in good to excellent condition. All components of the system are less than 36 years old. A preventive maintenance program ensures the continued reliability of the collection lines and lift stations. Force mains and lift stations are regularly serviced and operate satisfactorily. The District recently conducted exploratory videotaping of its sewer mains and continues to videotape a percentage of its system annually, with follow-up repairs accomplished as required.

Operations at the treatment plant and disposal facilities are continuously monitored in accordance with state and federal regulations. All testing is done to regulatory standards. Additional sampling, monitoring, and reporting are required at the rapid infiltration basins and on the reclaimed water system.

SANITARY SEWER DEMAND PROJECTIONS

Level of Service Standards

Level of service standards for sanitary sewer are shown in Table 5-16. As with potable water, the level of service standards differentiate between the various classes of resort hotels, other resorts, and between the theme parks and water parks. These standards are used when evaluating sanitary sewer generation for all proposals for future development.

Table 5-16: Level of Service Standards for Sanitary Sewer

Land Use	Unit	Gallons per Day
Residential	Dwelling	300
Hotel (general)	Keys	180
Luxury / Deluxe	Keys	230
First Class	Keys	180
Moderate/ Economy	Keys	130
Other Resort	Keys	230
Convention Space	Square Foot	0.20
Support / Office	Square Foot	0.20
Retail / General Commercial	Square Foot	0.25
Restaurant	Seat	20
Theme Parks (general)	Guest	30
Theme Parks (water)	Guest	50

Current Conditions

Based on the current quantity of development in the District and the amount of wastewater treated, the service levels shown in Table 5-16 are presently being met. The average daily wastewater flow was 11.89 mgd in 2008, a decrease from 12.47 mgd in 2007. As with potable water, the amount of wastewater treated in 2007 is being used as the basis for January 1, 2009 due to the uncertainty of knowing how much of the decrease resulted from conservation or the effects of the recession.

Future Conditions

The approach used to project future sanitary sewer demand taken in this element is similar to that used for potable water. The levels of service for the various uses listed in Table 5-16 have been applied to the quantities of projected development identified in the Future Land Use Element. Wastewater flow projections for 2015 and 2020 have been developed in this manner. The projections are given in Table 5-17.

Table 5-17: Projected Maximum Wastewater Flows

Year		Average Day	Plant Capacity	Surplus (Deficit)	Peak-month factor	Average day in peak month
January 1, 2010		11.641	15.0	3.359	1.121	13.050
	Projects completed in 2009 or under construction in to date	0.104				
	Development (2010-2015)	2.178				
	Attendance Growth (2010-2015)	0.475				
January 1, 2016		14.398	20.0	5.602	1.121	16.140
	Development (2016-2020)	3.390				
	Attendance Growth (2016-2020)	0.475				
December 31, 2020		18.263	20.0	1.737	1.121	20.473

Note

Plant capacity is based on annual average daily flows which accounts for variations above this figure to accommodate peak month and day conditions. Peak month can exceed annual average daily flows by 10 to 15 percent and peak day can exceed annual average daily flows by 20 to 25 percent.

FACILITY NEEDS

Wastewater facilities may be divided into the following categories: (1) collection and transmission facilities, including lift stations; (2) treatment facilities; and (3) reuse facilities. Major facility needs in each category are discussed below. The District has prepared a Master Utilities Plan which provides more specific guidance in the design and engineering criteria for these facilities. The Plan is periodically updated in response to changes in the major landowners' development program.

Collection and Transmission

New sanitary sewer collection lines will be added to accommodate development during upcoming years. These are identified in the District's Master Utilities Plan. Projects planned for the 2011-2015 period are listed in the Capital Improvements Element.

Treatment

Based on the revised wastewater flow projections identified above, expansion of the wastewater treatment plant to 20.0 mgd will be deferred until demand necessitates the plant expansion. The expansion is included in the CIE for FY 2012 and FY 2013 The District has completed plans for the expansion of the facility to 20 mgd and has obtained the permit for the work from FDEP.

Reuse System

The District's future effluent disposal needs will be adequately met through the continued development of the treated effluent reuse system and continued use of the rapid infiltration basins. Based on projected flows, the rapid infiltration basins may never require expansion due to the increasing demands of the reuse system. As mentioned in the Potable Water Subelement, extension of the reclaimed water system into previously developed areas will further increase the demand for reclaimed water and reduce the need for the RIBs.

Problems and Opportunities for Replacing, Expanding or Adding New Facilities

At this time, no major wastewater collection, treatment, or disposal problems exist within the District. The District recently entered into an agreement to extend its collection system outside its boundaries to facilitate housing development in the Horizons West area. An interlocal agreement executed during 1998 allocates 750,000 gpd of wastewater capacity to Horizons West for a 15-year period, and flows averaged about 600,000 gpd in 2007. The first project to use this capacity included about 250 affordable rental housing units geared towards persons employed within the District. This capacity is not currently being utilized.

Operation of sanitary sewer facilities will continue to be monitored regularly to protect public health and safety and ensure the conservation of the natural environment. The District will continue to investigate technologies that improve the quality of treated effluent and facilitate its reuse. At this point, no water quality problems have been reported or are anticipated.

The District's priorities for the coming years are: (1) to maintain adequate wastewater plant capacity to accommodate planned development through 2018, and (2) to expand the reclaimed water system to serve both new development areas and areas that were developed prior to the system's construction.

SOLID WASTE

OVERVIEW

Solid waste in the RCID may be broadly categorized as either Class I, Class III, or hazardous wastes. Class I waste consists primarily of materials disposed by visitors to the major activity centers and is ultimately recycled or directed to landfills. Class III waste consists of inert materials, such as construction debris and yard trimmings. Construction debris is disposed at privately operated landfills, while some yard waste is processed for compost amendment. Hazardous wastes are temporarily held in specially designated areas and are then transported by licensed carriers to disposal sites around the United States. Hazardous wastes are distinguished from other types of solid waste by their propensity for causing health or environmental hazards if improperly managed.

REGULATORY FRAMEWORK

The Federal Resource Conservation and Recovery Act (PL-580) established resource recovery as a national priority. The EPA reviews the impacts of solid waste disposal on air and water quality, while the U.S. Army Corps of Engineers monitors dredge and fill impacts. The Florida Resource Recovery and Management Act (Chapter 403.706, Florida Statutes) required each county to prepare a solid waste management plan. The FDEP has adopted rules dealing with solid waste handling and disposal (Chapter 62-701, Florida Administrative Code (F.A.C.)) and composting (Chapter 62-709, F.A.C.). The SFWMD provides review of water quality and quantity impacts associated with runoff from waste disposal and storage sites. Facility siting also is subject to appeal by the SFWMD. Actual construction and operation of solid waste facilities requires permits and review by the FDEP.

Hazardous wastes also are regulated by the U.S. Resource Conservation and Recovery Act and the Florida Resource Recovery and Management Act. The latter act directed the FDEP to develop and implement a hazardous waste management program. Florida also has passed the Solid Waste Management and Reduction Act (Chapter 403, Part IV, Florida Statutes), which is designed to reduce the amount of solid waste going to landfills. Within the RCID, the Planning and Engineering Department is responsible for ensuring compliance with applicable state and federal standards.

Within District boundaries, the Reedy Creek Improvement District provides solid waste and recycling collection and transfer and recycling services to customers. Orange and Osceola Counties regulate solid waste services through their public utilities divisions. Although the counties operate and maintain the region's principal refuse disposal facilities and ensure their compliance with state and federal regulations, local governments are not obligated to use these facilities. Most of the District’s Class I waste is actually hauled to a private landfill in Okeechobee County.

COLLECTION SYSTEM

The RCID Solid Waste Department maintains a fleet of collection trucks, including tilt-frame roll-off trucks, front-end loaders, side loaders, one rear loader, and a service truck. These include the fleet of vehicles that collect recyclable materials. Each facility in the District is equipped with dumpsters and, where warranted, all-

in-one compactors for special handling of wet refuse and collection of recyclable materials. In the Magic Kingdom, collection capabilities are augmented by a privately operated Automated Vacuum Collection system that channels solid waste from 15 collection points via 20-inch vacuum mains.

Solid waste collection services are provided seven days a week, with most customers receiving service once or twice weekly. Collection vehicles operate about 22 hours a day. All areas are served according to need. Frequent collection at the major hotels and attractions prevents the overloading of containers, vandalism, and the negative effects of inclement weather. The permanent residential units receive service twice a week, but generate a very small portion of the total waste.

TRANSFER SYSTEM

The District operates its own transfer station where non-recycled Class I wastes are emptied into a 350 cubic yard collection pit, compacted, and transferred to larger vehicles for landfill hauling. The station is located just north of the Magic Kingdom. The system is in fair operating condition and is planned to be replaced by a privately owned and operated facility in the south central portion of the District by 2011.

The transfer station processed 71,607 tons of solid waste during 2008, down from 74,641 tons of solid waste during 2007. This equates to approximately 196 tons on an average day. The volume increases about 10 percent during the peak month. Yearly tonnage sent to landfills since 1991 is shown in Table 5-18. Solid waste tonnage at the transfer station increased 26 percent between 1998 and 2007, a relatively slow rate of growth considering the large amount of development that occurred during the period. The tonnage would have increased much more rapidly if the District had not initiated an aggressive recycling program in the early 1990s. The total amount of Class I solid waste recycled in the RCID increased from five percent in 1990 to more than 33 percent in 1997. The rate has declined in percentage since, with diminished markets for certain recycles products as a major reason for the decline.

DISPOSAL

In January 2001, the District signed a five-year contract for Class I solid waste disposal with Okeechobee Landfill, a privately operated landfill located about 90 miles south of the District in Okeechobee County.

The 348-acre Okeechobee Landfill has a projected life of 75 years and a permitted average daily capacity of 10,000 tons per day. The District's waste-stream represents about 4 percent of the 6,000 tons per day currently received at the landfill. Whereas the RCID previously used its own fleet to haul waste from its transfer station to the County landfills, this service is now provided by a private franchise and is included in the fee paid to the Okeechobee Landfill.

Most construction materials are hauled to a privately owned and operated Class C & D (Construction and Demolition debris) landfill located about seven miles north of District boundaries. There is also a privately operated 55-acre Class III landfill located within District boundaries in Bay Lake to the west of the Magic Kingdom. This landfill is occasionally used for the disposal and processing of C & D and other Class III debris although its use is minimized to preserve its remaining capacity. Class III materials are delivered to the Bay Lake landfill where recyclable wood, landscape waste, and metals are recovered for recycling; the remaining Class III waste is then loaded into trailers and hauled to an off-site landfill.

The amount of construction waste disposed in landfills varies from year to year depending on the amount of construction taking place in the District and the types of wastes being generated. Some types of construction waste are more conducive to recycling than others. The total tonnage of Class III waste generated in the District has been surpassed by Class I waste during recent years due to the smaller amount of construction occurring with the District and the improvements made in waste reduction at construction projects. Total Class III waste sent to the landfill in 2008 was about 44,455 tons, down from 50,380 tons in 2007.

Table 5-18: Solid Waste Trends

Year	Class I Tons		Class III Tons	
	Landfilled	Recycled (%)	Landfilled	Recycled (%)
1991	43,864	3,567 (7.5%)	98,248	39 (0.04%)
1992	45,274	6,610 (12.7%)	76,836	27,860 (26.6%)
1993	45,104	13,373 (22.9%)	59,557	76,541 (56.2)%
1994	41,555	17,419 (29.5%)	126,864	53,094 (29.5%)
1995	45,909	22,369 (32.8%)	46,266	51,076 (52.5%)
1996	50,392	24,081 (32.3%)	139,851	25,889 (15.6%)
1997	51,068	25,769 (33.5%)	70,618	20,177 (22.2%)
1998	66,555	17,944 (21.2%)	59,190	31,029 (34.4%)
1999	76,891	Unavailable	Unavailable	Unavailable
2000	82,761	Unavailable	Unavailable	Unavailable
2001	Unavailable	Unavailable	Unavailable	Unavailable
2002	60,823	14,915 (19.7%)	47,780	6,754 (12.4%)
2003	59,993	17,003 (22.1%)	57,365	4,758 (7.7%)
2004	68,871	14,918 (17.8%)	62,239	7,728 (11.0%)
2005	72,590	15,860 (17.9%)	50,908	4,210 (7.6%)
2006	79,595	15,893 (16.6%)	43,468	2,505 (5.4%)
2007	83,689	20,361 (14.9%)	50,380	3,619 (6.7%)
2008	72,470	20,361 (21.9%)	44,455	2,728 (5.8%)

SPECIAL PROGRAMS

Resource Recovery

The District has maintained a fleet of collection vehicles for recyclables since the early 1990s and has expanded collection capacity as demand has increased. There are now six vehicles providing daily collection service to more than 80 repositories. A recycled materials recovery facility (RMRF) was established in a portion of the ASP Composting facility in 2003. Aluminum, steel, plastic, newspaper, cardboard, glass, office paper, and other miscellaneous items are transported there on an average day. Materials are stored, loaded and transported from the facility to a centralized material recovery facility owned by Orange County and operated by a private corporation.

In 2002 the composting of food waste was initiated with completion of an in-vessel system constructed at the wastewater treatment plant site. The collection of food waste has been an important part of the District's recycling program and has substantially enhanced recycling efforts. In 2007 more that 12,000 tons of food waste were collected, making food waste the single biggest component of the District's recycling program. In 2007 food waste represented about one-half of the Class I recyclable tonnage.

Hazardous Wastes

Hazardous wastes in the RCID are collected, held, and transported by the private sector in accordance with state and federal regulations. There were approximately 172 tons of hazardous waste generated in the District during 2007, or less than one percent of the Class I solid waste generated that year. Hazardous wastes are held in 32 designated accumulation areas, each engineered for safety and security. Typically the accumulation areas consist of a poured monolithic slab with curbs, a roof, and perimeter fencing; two of the areas are fully enclosed. Each area usually contains two drums, with a capacity of eight to 12 drums. Drums are regularly collected on a weekly basis and transported to a central compound near the wastewater treatment plan. From there all wastes go to EPA-approved sites via licensed haulers. The receiving sites are visited at least once a year by a representative of the Walt Disney World Company to ensure that wastes are being properly disposed of and the facilities are in compliance.

All generators of and persons working with hazardous materials are trained to properly handle these materials. All wastes are labeled, sealed, and separated by type to prevent additional hazards that could result from mixing, in the event of a leak or spill. Paints and solvents are the most common hazardous wastes generated in the District.

OPERATION AND MAINTENANCE

The District's transfer station and recycled materials staging facility are in fair and excellent operating condition, respectively. There are no reported operational or maintenance problems at this time. The fleet of collection vehicles are regularly serviced and maintained, with new vehicles added to the fleet as needed.

CAPACITY AND DEMAND

Class I solid waste tonnage between 1991 and 2007 is shown in Table 5-18 above. Solid waste tonnage at the transfer station has almost doubled during the past 16 years and the current transfer station is handling on average 200 tons per day. The transfer facility has a permitted capacity of 275 tons per day.

Landfill disposal capacity is adequate to handle committed and anticipated future growth. Assuming the District's arrangement with the Okeechobee Landfill continues, the District has a viable long-term location for landfill disposal. The District's recycling facilities have sufficient capacity to accommodate increased volumes of recyclable products. The greater challenge is anticipating market conditions for recyclables and ensuring that recycling certain products remains economically viable. The District also faces the challenge of processing 100 percent of its collected food waste and reaching a 50 percent landfill diversion rate for all solid wastes. This is discussed later in this element.

The quantity of construction debris has been lower in the past seven years than that experienced in the early 1990s. This is most likely due to improved construction and recycling techniques and less aggressive development experienced throughout the District. Based on past trends, Class III debris during the coming years is projected to be between 50,000 and 75,000 tons per year. The percentage recycled will depend on the market for the recycled products (particularly concrete and asphalt), but will probably range from 20 to 50 percent. If current trends continue, the landfills to which construction debris is hauled have the capacity to meet the District's needs for the ten year planning horizon

SOLID WASTE DEMAND PROJECTIONS

Level of Service Standards

Level of service standards for solid waste are shown in Table 5-19. The standards are based on the actual quantities of waste disposed at the residential units, hotels and resorts, theme parks, offices, and commercial uses within the District during 2007. The District tracks solid waste disposal and recycling volumes at each of the major resorts and attractions on a monthly basis. An annual report is published at year's end.

Table 5-19: Level of Service Standards for Solid Waste

Land Use		Unit	Pounds per Day
Residential		Dwelling	11.5
Hotel (general)		Keys	7.5
	Luxury / Deluxe	Keys	11.0
	First Class	Keys	8.5
	Moderate/ Economy	Keys	6.0
	Value	Keys	3.5
Other Resort		Keys	6.0
Convention Space		Square Foot	0.0325
Support/Office		Square Foot	0.002
Retail/General Commercial/Restaurant		Square Foot	0.0325
Theme Parks (general)		Park	10 to 20 Tons
Theme Parks (water)		Park	0.5 to 1.0 Tons

Current Conditions

Based on the current quantity of development in the District and the amount of solid wasted disposed of, the service levels shown in Table 5-19 are presently being met. On average 196 tons of solid waste were generated per day in 2008, a decrease from 205 tons in 2007.

Future Conditions

The projections in this sub-element have been developed by applying level of service standards to the various land uses in the ten-year development mix shown in the Future Land Use Element. Table 5-20 indicates projected solid waste tonnage for 2015 and 2020. These numbers assume recycling rates remain at current levels.

Table 5-20: Projected Class I Solid Waste Generation to Landfill

Year		Average Day (Tons)
January 1, 2010		177
	Projects completed in 2009 or under construction in 2010	4
	Development (2010-2015)	41
	Attendance Growth (2010-2015)	2
January 1, 2016		224
	Development (2016-2020)	45
	Attendance Growth (2016-2020)	5
December 31, 2020		274

FACILITY NEEDS

Facilities for solid waste disposal may be categorized in the following categories: (1) Transfer stations; (2) Landfill facilities, including construction landfills; (3) Resource Recovery and Recycling Facilities (including composting facilities); and (4) Hazardous waste storage and disposal facilities. The need for each facility type during the next 10 years is discussed below. In addition to the facilities listed below, the District will expand its collection fleet and collection receptacles (dumpsters, etc.) as demand warrants.

Transfer Stations

The need for additional transfer station capacity will depend on how successful the District is in increasing its landfill diversion rate. The District has already attained the 15 to 20 percent diversion rate and has set a Comprehensive Plan objective of increasing landfill diversion to 50. The higher rate would enable the existing transfer station to remain without expansion through 2018. However, at the current diversion rate of 15 to 20 percent a new transfer station will be required between 2016 and 2020. The District has programmed a new transfer station in its CIE in 2011.

Landfill Facilities

The District maintains a service agreement with the Okeechobee Landfill. As mentioned earlier, the facility has ample capacity to meet the District's disposal needs for the next ten years and beyond.

The District will continue to use a private off-site construction landfill for disposal of Class III waste. The existing on-site landfill will continue to be used for specialty and sensitive items only. No new facilities, other than the transfer station, are projected to be required during the next ten years.

Resource Recovery and Recycling Facilities

The existing recovered materials recycling facility (RMRF) has a capacity of about 100 tons per day. The projections indicate that this capacity could be reached by 2018 if the landfill diversion rate is increased to 50 percent.

Hazardous Waste Facilities

No new RCID hazardous waste facilities are proposed at this time. The private sector will continue to operate a centrally located accumulation area near the wastewater treatment plant. Although additional small accumulation areas may be proposed by the private sector in conjunction with new development, no major changes or facilities are anticipated.

Problems and Opportunities

At present there are no significant solid waste service problems in the RCID.

The District is in the process of improving its food waste recycling program by experimenting with a desiccation system and the use of inoculants. The District is also exploring new markets for its recycled products, particularly those which have been historically weak or difficult to capture (plastics, glass, and concrete).

STORMWATER MANAGEMENT

INTRODUCTION

The Stormwater Management Subelement of the RCID Comprehensive Plan describes the regulatory environment, stormwater control facilities, levels of service, and facility needs for stormwater control. The ultimate objective of the subelement is to ensure flood protection for developed areas, water conservation within designated wetland and flood-prone areas, and stormwater quality treatment to meet clean water requirements. Stormwater management has been one of the primary functions of the District since its inception. Since the mid-1960s, the District has constantly made improvements so that the current system is capable of accommodating a 50-year storm.

The District is responsible for approval, operation, and maintenance of all public drainage facilities within its boundaries. The planning, construction, operation, and maintenance of stormwater control facilities in each development project is the responsibility of the owner/developer unless the facilities are dedicated to the District.

REGULATORY FRAMEWORK

The construction and operation of stormwater management facilities within the District is subject to regulation at the federal, state, and local levels. State and federal legislation addresses the management of flood waters, drainage modifications impacting wetlands, and the use of land in flood plain areas. The Federal Water Pollution Control Act (PL 92-500) is the primary law dealing with quality of stormwater runoff. The EPA is responsible for implementing this act. The Florida Water Resources Act (Chapter 403, Florida Statutes) provides the FDEP with the authority to establish water quality guidelines and recognizes stormwater runoff as an important resource. The FDEP has adopted a Stormwater Rule to fulfill part of the state's responsibilities under Section 208 of the federal act.

Stormwater management facilities are also subject to permitting and monitoring requirements by the South Florida Water Management District (SFWMD). The District was issued an SFWMD permit for operation of its stormwater management system in 1979; the permit was revised in 1992. The development parameters established by the permit are discussed later in this chapter.

Presently, the RCID coordinates its stormwater management activities with Orange and Osceola Counties by reviewing development proposals upstream of District boundaries but within the Reedy and Bonnet Creek watersheds. The Counties may withhold development approval until developers and the RCID reach agreement on the mitigation of drainage impacts. The RCID currently reviews outside proposals only for consistency with the South Florida Water Management District permit requirements.

SERVICE AREAS

The District's Reclamation Plan, approved by the State of Florida in 1966, provided for a system of water control that permitted maximum beneficial use of District lands, contributed to the preservation of natural resources, and facilitated the conservation of water. Provisions for the increased drainage requirements to

accommodate new development were included. The Plan of Reclamation incorporated inflows of runoff from tributary lands to the District in Orange and Osceola Counties.

The service area includes all land within the Reedy Creek Improvement District and approximately three times that acreage in contributory peak-lands. A total of 108,000 acres are included. Within the District, the predominant land uses are theme parks, resort hotels, associated support uses, and open space.

EXISTING CONDITIONS

Natural Drainage Features

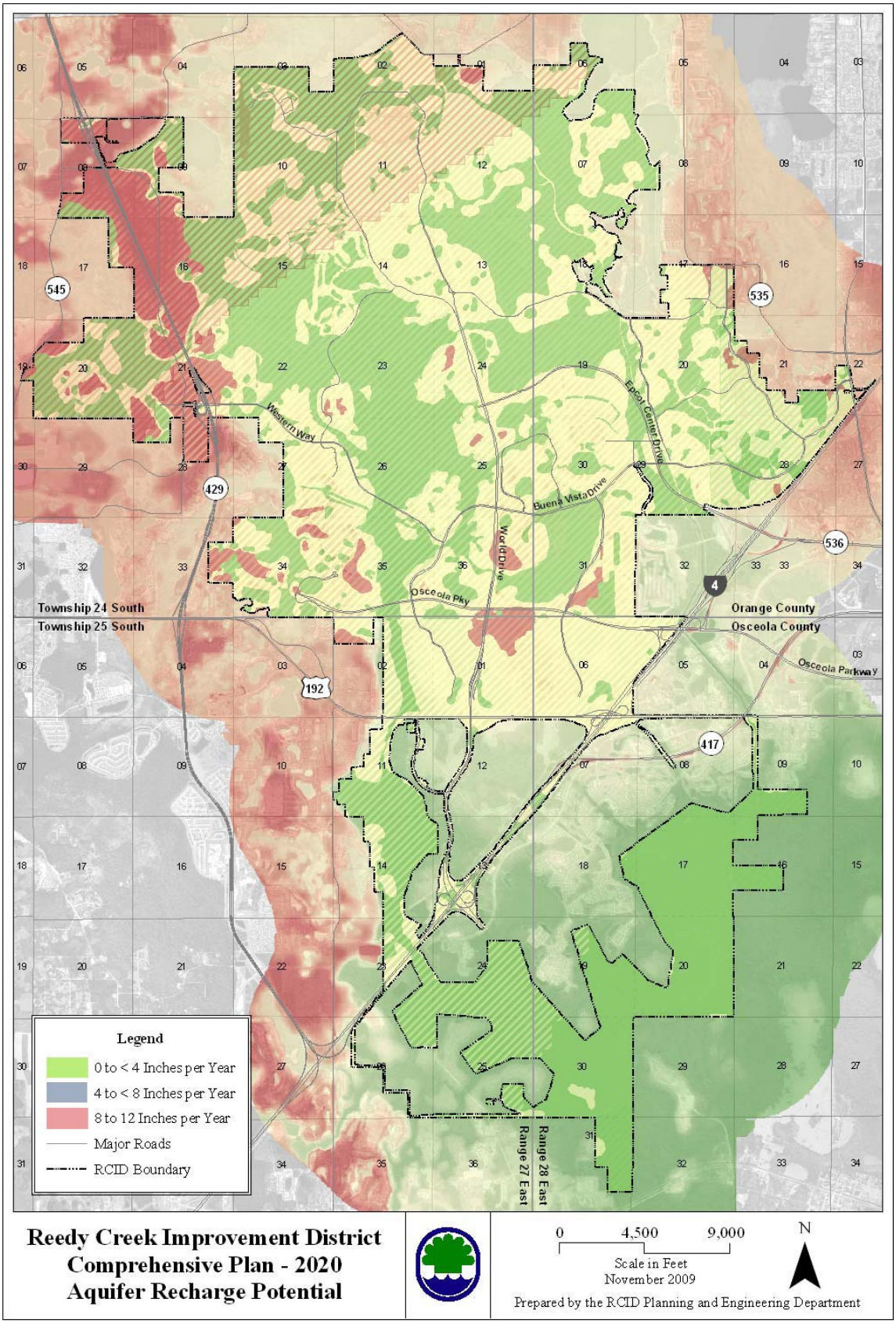
Drainage patterns in the RCID are shaped by topography, soils, and vegetation, as well as buildings and man-made drainage improvements. Topography ranges from about 150 feet elevation in the northwest part of the District to about 70 feet at the point where Reedy Creek leaves the southern boundary. A low ridge extends from Bay Lake southward through the EPCOT Center area, across US 192, and then southeasterly to the District boundary. The ridge provides a natural drainage divide between Reedy and Bonnet Creeks, the District's two main natural drainageways. Runoff from the west side of this ridge and from the rolling areas along Hartzog Road flows to the low-lying areas along Reedy Creek and ultimately to Reedy Creek itself. North of the Bear Island Road bridge, most of Reedy Creek has been channelized with earthen berms. South of this bridge, the creek is in its natural banks and is adjoined by wetlands on either side. South of I-4, the creek is adjoined by a broad flood plain and conservation area that is saturated most of the year.

Drainage from lands lying east of the ridge and in the City of Lake Buena Vista flows to Bonnet Creek. The Creek has been channelized and is now contained within an earthen berm canal (C-1) for most of its length within the District. Through man-made improvements, both the Reedy Creek and Bonnet Creek watersheds have been subdivided into many small sub-basins. The topographic features are shown in Figures 5-4.

Drainage is also a function of soil and vegetative characteristics. As the Conservation Element indicates, the loose sandy soils typical of the District's higher elevations have the ability to absorb more runoff than the lower areas. The saturated soils or clay soils generally found in the Reedy Creek flood plain and in the wetland areas have a much slower rate of absorption and a much higher water table. The higher areas are managed to prevent erosion, while the emphasis in the low-lying areas is on flood protection and conservation.

Most rainfall in the RCID vicinity falls during the summer months; some summer thunderstorms may exceed four inches of precipitation. Because the most extreme storms have the capability to overload the natural drainage system, the District has implemented an extensive stormwater conveyance system to avoid flood hazards.

Figure 5-4: Topography



Man-made Drainage Features

Man-made alterations affecting drainage include canals, storm sewers, culverts, inlets, lakes, basins, and grading changes that affect the topography and direction of runoff. The initial stormwater control plan was developed and implemented between 1966 and 1979. As additional areas within the District have been developed, new stormwater control measures have been implemented and new facilities have been added. Drainage permits are periodically reviewed and modified as land use and hydrologic conditions change.

With current drainage improvements, the District still consists of two major watersheds. The western half of the District still drains to Reedy Creek, while the eastern half drains to Bonnet Creek. There are 66 linear miles of man-made canals and natural creek, and 23 gated control structures. Weir and gate structures are used to maintain surface elevations in the canals and to link some of the canals to nearby lakes. Water storage recorders have been placed at ten separate locations within RCID boundaries and at a number of peak- locations both upstream and downstream.

Both sub-basins discharge stormwater into the designated Conservation Area at the south end of the District. The South Florida Water Management District has limited the discharge from the District to 3,282 cubic feet per second (cfs) in a ten year/three day storm event. The design capacity of the control structure at the discharge point is estimated to be 2,984 cfs, based on the District's drainage model.

Runoff hydrographs were developed using a combination of the Soil Conservation Service Unit Hydrograph Method and the Santa Barbara Urban Hydrograph Method. The hydrographs provide criteria for assessing existing stormwater management facilities and designing new facilities. Channel performance is evaluated based on a computer program that simulates storm conditions throughout the system.

New primary facilities are typically designed to accommodate a three-day storm producing 12.91 inches of rain. Such a storm has a 1 in 50 chance of occurring in any given year (a "50-year return frequency" or "50-year storm event"). Stormwater facilities are also checked for their performance in a three-day storm producing 14.27 inches of rain; such a storm has a return frequency of 100 years. Secondary stormwater management facilities are sized in accordance with a 10-year return frequency, 72-hour duration storm.

The District's drainage model uses runoff coefficients based on the amount of impervious surface that is estimated to be in place when the District is fully built out. The following acreage parameters are used by the model and are included in the District's 1992 SFWMD permit:

	Acres
Water:	1,641 acres
Pavement (roads, parking, walkways, etc.)	6,134 acres
Building Coverage (footprints)	2,629 acres
Preserved Areas (primarily wetlands)	9,215 acres
Other Pervious Areas (golf courses, turf grass, landscaping, medians, etc.)	7,467 acres
Total Acres	**27,086 acres**

The SFWMD permit includes portions of Celebration, a planned community that was deannexed from the District in 1992. Although land use on the Celebration site is under Osceola County's jurisdiction, its water management areas remain subject to RCID stormwater management jurisdiction.

Approximately 10,800 acres in the District are used for the storage of runoff, either in surface water bodies or wetland areas. The wetlands and lakes retard the flow of surplus waters, thereby reducing the peak flow discharged from the District at the south boundary through the S-40 water control structure.

Tributary lands outside the District have been considered in the design of primary channel and structural improvements. Hydrologic characteristics of the tributary lands were obtained from U.S. Geological Survey (USGS) Quadrangle Maps, Soil Conservation Service soils maps, and U.S. Weather Bureau statistical rainfall data. Runoff from the tributaries enters through 12 inflow points along the District perimeter, shown in Figure 5-1 (see Policies).

Water Quality

In addition to flood protection, the District's stormwater management system provides surface water quality treatment. Stormwater runoff becomes a pollution source when materials such as oil, grease, fertilizer, and heavy metals are washed into the drainage system by rainfall. Provisions to divert or screen runoff prior to its discharge to natural surface waters are an important part of the District's drainage plan. Surface water quality in the District is monitored continuously by the RCID's Environmental Protection Department at various locations in the Reedy Creek and Bonnet Creek watersheds. In accordance with the National Pollution Discharge Elimination System (NPDES) program, the District conducts biosampling of stormwater impact. Sample results from two monitoring stations are reported to the EPA on an annual basis.

OPERATION AND MAINTENANCE

Operation and maintenance of water control works is provided by District personnel. Maintenance is performed on a regularly scheduled basis and includes monthly and semi-annual inspection of water control facilities, periodic water quality monitoring, monthly mowing and erosion control, canal clearing, and structure repair, as required. Surface inspections of the control gates are performed biennially and underwater inspections of the control structures are performed periodically. As needed the District rip-raps control structures to abate bank erosion, repaints control structures, removed earth plugs and vegetation on canals, and rebuilds sections of the levee system. These types of activities ensure that the water control facilities can operate at their design capacities and effectively prevent flooding during extreme rainfall.

Since the water control facilities of the District are essentially in place and have been planned with future development in mind, future improvements will consist primarily of expansion and maintenance of existing facilities. The District reviews the water control facilities annually to prioritize modifications and improvements.

NEEDS ASSESSMENT

Level of Service Standards

Levels of service for stormwater management facilities are based on the level of protection provided during storms of varying intensity. The standards for the Reedy Creek Improvement District are given below:

- development in the 100-year flood plain must provide compensating storage and may not increase the 100-year flood elevation or reduce the base carrying capacity of the floodway;

- the first floor of all habitable structures and public facilities shall be a minimum of one foot above the 100-year, 3-day storm event elevation, as determined by a stormwater model acceptable to the District;

- arterial roadways shall remain above the 50-year, 3-day storm elevation as determined by a stormwater model acceptable to the District;

- the main District Stormwater Management System shall convey the 50-year, 3-day storm event as determined by the RCID stormwater model;

- the secondary District Stormwater Management System shall convey the 10-year, 3-day storm event as determined by the RCID stormwater model;

- the discharge at S-40 shall be limited to 3,282 cfs during a 10-year, 3-day storm event; and

- in accordance with the 1992 SFWMD permit, all project sites shall retain the first one-inch of runoff on-site before discharge to the District's system, or retain 2.5 inches times the percentage of impervious surface area on the site, whichever is greater.

Performance Assessment

The general performance and condition of existing facilities of the District have been favorable because of regular inspections and maintenance. Records of canal water levels in the District, maintained by Reedy Creek Energy Services, are published weekly and indicate that design water surface elevations have not been exceeded. Appreciable *reduction* of water surface levels below those maintained by primary control structures also has not been detected since monitoring was initiated in 1982. Consequently, the water control facilities have helped maintain groundwater levels adjacent to the canal system.

The structural facilities of the District are in good condition. The original culverts were installed in the 1970s and most of the water control gates were installed between 1969 and 1985. With continued proper maintenance, these structures should have an expected life of 50 to 75 years.

In accordance with its SFWMD permit, the District is required to complete an annual analysis of its stormwater management system. The analysis is submitted to the SFWMD prior to March 30th each year and the findings are used as the basis for designing improvements to the system. The drainage analysis also includes mapping of the flood plain, including elevations at various cross-sections. A current flood plain map may be found in the Conservation Element of this Plan.

The District had previously established a three-tiered system of priorities for stormwater management improvements. “Priority One” improvements were those that would prevent the flooding of existing developed areas in a ten-year and 50-year storm event. “Priority Two” improvements were those that would prevent 10-year and 50-year intensity flooding in areas where development was projected during the next five years. “Priority Three” improvements were those that would prevent 10-year and 50-year intensity flooding in areas projected to develop beyond a five year time horizon. *At this point in time, all Priority One improvements have been completed and no Priority Two or Three improvements have been identified.* The District’s single priority is to maintain the existing stormwater management system and provide improvements as needed for specific future development areas.

When the District instituted the three-tiered priority system in the early 1990s, the drainage model indicated a 10-year frequency storm could trigger flooding in portions of Fort Wilderness campground, the area northwest of the Magic Kingdom, and the undeveloped area west of the wastewater treatment plant. The model further indicated that a 50-year frequency storm could cause flooding in parts of Walt Disney World Village (now Downtown Disney). The Fort Wilderness and Disney Village flood hazards were identified as Priority One and were programmed for correction. Flood improvements in the area northwest of the Magic Kingdom were considered, but were later determined to be infeasible because of potential wetland impacts. Moreover, a subsequent drainage study determined the L-407 canal had greater storage capacity than the 1991 drainage study had indicated. Consequently, flood hazards in this area were less serious than originally suspected.

Most of the improvements constructed during the early and mid 1990s involved replacement of control structures and widening of culverts. The S-404B, S-404D, and S-404E culverts on the L-404 canal were enlarged and the S-14A was enlarged. At the S-101 control structure, capacity was increased using a bypass pipe and weir system. As a result of these improvements, only the wetland and lakeshore areas at Downtown Disney would be subject to flooding in a 100-year storm. Flooding at the Fort Wilderness campground would be minor and would be due to a secondary, privately-owned drainage system rather than the RCID system.

FACILITY NEEDS

With the completion of several capital improvement projects during the early and mid-1990s, the District has largely corrected flooding problems and constructed the facilities necessary to ensure that existing developed areas are safe from future flood hazards. The priority at this time is to maintain components of the existing system. This requires periodic cleanout of the canals, maintenance of levees, and replacement of storm-water control structures as needed.

Within future development areas, the District will require modeling of drainage impacts and construction of appropriate improvements to mitigate flood hazards on- and off-site. This may require on-site detention ponds in some instances. It may also require specific on-site and peak-period improvements to the canal and weir system. No specific improvements have been identified at this time.

Reedy Creek Improvement District
Comprehensive Plan

CONSERVATION ELEMENT

Part A: Policies

INTRODUCTION

The Conservation Element addresses the management of natural resources in the District, including groundwater and surface water, soil and minerals, air, and plant and animal life. The element begins with adopted goals, objectives, and policies (the "Policies" component) addressing conservation issues. The second part of the element is a "Supporting Data and Analysis" component which provides background data on current conditions, and discussions of issues and future conditions.

GOALS, OBJECTIVES, AND POLICIES

GOAL

It is the goal of the Reedy Creek Improvement District to protect and conserve the natural resources of the District.

Objective 1

To maintain the quantity and quality of local groundwater resources.

Policy 1.1: The District will encourage research and analysis of groundwater recharge conditions in the region. The findings of such research, including the ongoing USGS groundwater study, will be considered in future land use and development decisions. Until more current groundwater maps are available, the District will rely on the most current maps available from the SFWMD or otherwise deemed acceptable by the SFWMD to identify recharge areas.

Policy 1.2: The RCID shall continue to ensure compliance with Land Development Regulations which specify conditions for construction and development in high recharge areas. These conditions include provisions to minimize impervious surface cover in recharge areas so that recharge potential is maximized, and to regulate land uses within recharge areas.

Policy 1.3: The RCID shall continue to ensure compliance with Land Development Regulations which specify measures for maintaining water quality in the District's potable water wells.

Policy 1.4: Prior to the development of any site larger than five acres, the RCID shall make a determination of the site's recharge potential and shall specify appropriate measures to minimize the loss of that potential.

Policy 1.5: The RCID shall continue to cooperate and coordinate with the SFWMD and other agencies and jurisdictions in their efforts to protect groundwater resources in Central Florida.

Policy 1.6: The RCID shall continue to use locally derived water supplies wherever possible and shall avoid the importation of water from other jurisdictions or watersheds.

Policy 1.7: The RCID shall maintain standards which require the containment of sludge and hazardous materials so that there will be no impact on groundwater quality.

Objective 2

To protect groundwater recharge functions through the designation of extensive public and private open space areas within the District.

Policy 2.1: The RCID shall continue to maintain stormwater retention requirements for new development areas and ensure that all retention structures in developed areas are maintained.

Policy 2.2: The District shall continue to construct capital improvements such as rapid infiltration basins, canals, and reclaimed water mains which provide opportunities for aquifer recharge and help maintain groundwater elevations.

Policy 2.3: The District shall continue to support the designation of high recharge areas for Public Facility, Conservation, or Resource Management/ Recreation uses on the Future Land Use Map.

Objective 3

To ensure that adopted surface water quality standards are enforced.

Policy 3.1: The District shall limit the introduction of nutrients into District waterways; establish minimum criteria for surface water discharges; classify receiving waters according to their uses; and prohibit surface water discharges which constitute human health hazards.

Policy 3.2: All District surface waters and their related improvement programs shall continue to meet the Class III surface water quality standards promulgated in Chapter 62, Florida Administrative Code in effect at the time of Plan adoption.

Policy 3.3: The District shall continue to maintain a surface water quality sampling program that monitors dissolved oxygen, Ph, total nitrogen, and total phosphorus at least monthly and heavy metals, pesticides, and herbicides at least semi-annually.

Objective 4

To protect potable water wellfields in the RCID from contamination by harmful land uses and to limit potable water withdrawal to 8.103 billion gallons per year unless changed through the plan amendment process.

Policy 4.1 Potable groundwater withdrawal shall be limited to a peak-month flow of 933.9 million gallons.

Policy 4.2: The District shall use the following protection criteria around existing and proposed well sites as set forth in the RCID Land Development Regulations:

(1) *Restrictions Within 200 Feet*. All new development other than water pumping facilities, roads, and parking shall be prohibited within two-hundred (200) feet of a potable water well. Roads and parking may be allowed only if they are more than fifty (50) feet from the well and the drainage is directed away from the well.

(2) *Restrictions Within 300 Feet*. Wet retention/detention areas shall be prohibited within three hundred (300) feet of each potable water well.

(3) *Restrictions Within 400 Feet*. The following new development shall be prohibited within four hundred (400) feet of each potable water well:
   (a) Landfills;
   (b) Bulk storage of materials on the Florida Substance List;
   (c) Any activities that require the storage, use, or handling of agricultural chemicals or hazardous wastes;
   (d) Wastewater treatment plants and facilities, including the disposition of sludge; and
   (e) Septic tanks.

Policy 4.3: The District shall continue to maintain a groundwater sampling program which, at a minimum includes quarterly sampling of nutrients, metals, and organic compounds.

Policy 4.4: In accordance with Chapter 62 of the Florida Administrative Code, groundwater quality shall continue to be monitored to determine the effect of treated effluent discharge and other activities on the potable water supply.

Policies on water conservation are contained in the Potable Water Subelement of this Plan.

Objective 5

To conserve soil and mineral resources through implementation of the policies shown below.

Policy 5.1: Best Management Practices shall be required for soil erosion and sedimentation control along District canals and lakes.

Policy 5.2: No mineral extraction, other than that needed on a temporary basis during construction or landscaping, shall be permitted in areas designated on the Future Land Use Map as Conservation, Resource Management/Recreation, or Public Facilities.

Policy 5.3: All new construction sites shall ensure that the turbidity of the receiving water body does not exceed the current state standards as found in Chapter 62, F.A.C.

Policy 5.4: Mitigation of any violations that may result from the implementation of Policy 5.3 shall be completed prior to continuing construction on those portions of the project generating the violation.

Objective 6

To implement programs, collaboratively with other jurisdictions and agencies in Central Florida, which ensure that the region's Air Quality Index does not exceed 100, i.e., the top of the moderate range, except during the most extreme atmospheric conditions (such as thermal inversions).

Policy 6.1: The RCID shall encourage the Florida Department of Environmental Protection to establish air quality monitoring stations in the District in the event that regional air quality conditions deteriorate.

Policy 6.2: The RCID shall work with its major landowners to promote the use of alternative forms of transportation in the District, such as bike paths, watercraft, monorails, and buses.

Policy 6.3: The RCID shall require the major landowners to continue the use of parking technologies which minimize carbon monoxide, lead, and nitrogen emissions from idling automobiles.

Objective 7

To ensure the protection of wetlands within the District by maintaining a wetland classification system which establishes appropriate regulations for each class of wetlands.

Policy 7.1: The RCID Land Development Regulations shall ensure the protection and conservation of all wetlands within its jurisdiction not identified for impact by Long Term Permits (LTPs). Wetlands shall be designated as Class I areas or Class II areas based on the following criteria:

(1) *Class I Criteria*
   (a) Any functional wetland currently protected by a conservation easement within the Reedy Creek Improvement District.
   (b) Any area included within the Wildlife Management/Conservation Area (WMCA) as defined by SFWMD.
   (c) Any wetland identified by the Florida Game & Fresh Water Fish Commission or U.S. Fish & Wildlife Service as providing critical and essential habitat for species on either the federal or state list of threatened or endangered species.

(2) *Class II Criteria*. All wetlands within the District which do not meet the criteria as a Class I wetland and which are not identified for impact by LTPs.

Class I and Class II wetlands are depicted on Figure 6-1.

Policy 7.2: The RCID shall continue to maintain a conservation easement over an undisturbed buffer area along Reedy Creek. The existing buffer area, known as the Wildlife Management Conservation Area (WMCA), extends not less than 550 feet on either side of the centerline of the creek, or 50 feet landward of the jurisdictional wetland boundary, whichever is greater.

Policy 7.3: The protection, conservation, and continued viability of wetlands shall be the principal consideration in the review of all projects affecting wetlands. Development within Class I wetlands shall be prohibited. Removal, encroachment or alteration of Class II wetlands will be allowed only when deemed appropriate and necessary, when the type, extent, and location of an impact is minimized to the maximum extent feasible, when consistent with Future Land Use Policies 3.11 and 3.12, and when all required State and federal permits are obtained.

Policy 7.4: Roadways and utility corridors may be permitted in a Class II area if no other alternatives are feasible and the pre-development hydroperiod is maintained after the completion of construction. In such instances, the provisions of Policy 7.3 and Future Land Use Element Policies 3.11 and 3.12 shall continue to apply.

Policy 7.5: Mitigation shall be required for unavoidable losses of Class II areas. The mitigation must be in accordance with Future Land Use Element Policies 3.11 and 3.12 and may occur anywhere within the Reedy Creek Watershed, within or outside of the District.

Objective 8

To ensure that sufficient habitat within the District is conserved to sustain wildlife, particularly rare, endangered, and threatened species.

Policy 8.1: The District shall designate the most environmentally sensitive areas within its boundaries for Conservation and Resource Management/ Recreation land uses. The boundaries of these areas should be defined in a manner which preserves natural resource corridors within and across the District. Except as provided for in Future Land Use Policies 1.7 and 1.8, development shall be prohibited in the Conservation area and shall be limited to low intensity recreational uses in the Resource Management/ Recreation areas.

Policy 8.2: The District shall require the conservation of plant and animal habitat within the designated Conservation Area and shall encourage the enhancement of this habitat to sustain wildlife populations.

Policy 8.3: The District shall continue its program of stocking native game fish in the lakes and limiting fishing to ensure continued species development.

Policy 8.4: The District shall ensure that, at a minimum, the requirements of the following laws are met:

(1) The Bald Eagle Protection Act (16 USC 688-668d) and (50 CRFR 22)

(2) Section 9 of the Endangered Species Act of 1973 (16 USC 1531)

(3) The Migratory Bird Treaty Act (16 USC 703-711)

Policy 8.5: Although the gopher tortoise has been permitted for taking within the District, relocation of the species to sites designated for Conservation, Resource Management/ Recreation, or Public

Facility uses is encouraged in the event gopher tortoises are discovered on future development sites.

Policy 8.6: In the event that significant populations of the Florida Scrub Jay are determined to be present on future development sites, the District shall require compliance with Florida Game and Freshwater Fish Commission mitigation requirements if impacts to a scrub jay nest are deemed unavoidable.

Objective 9

To ensure the conservation of natural vegetation and energy resources.

Policy 9.1 Existing natural vegetation and ecological communities shall be preserved and integrated into landscape plantings where appropriate and feasible.

Policy 9.2 The District shall encourage the use of renewable or alternative energy resources.

Policy 9.3 The District shall encourage participation in the Florida Department of Environmental Protection's Florida Green Lodging Program.

Policy 9.4 The District shall explore the feasibility of using renewable or alternative energy resources in its utility operation.

(Added by Ordinance/Resolution No. 510 adopted 07/28/2010 and Ordinance Nos. 128 and 125 adopted 07/14/2010)

Rule 9J-5 Objectives Discussed in Other Elements

Rule 9J-5.005(2)(b)10 is addressed in the Solid Waste Subelement: *Management of hazardous wastes to protect natural resources.*

Reedy Creek Improvement District
Comprehensive Plan

CONSERVATION ELEMENT

Part B: Supporting Data and Analysis

PURPOSE

The purpose of the RCID Conservation Element is to:

- identify and analyze the District's natural and man-made environmental resources; and
- promote the conservation, use, and protection of these resources.

The Conservation Element demonstrates the District's intent to continue using natural resources as a foundation for planning and a basis for future land use decisions. It is based on in-depth studies pertaining to water resources, geology, soils, air and water quality, flora, and fauna within and around the District.

This element promotes the protection of the area's natural environment to ensure the health, safety, and welfare of the District's residents, employees, and visitors. In addition to the area's abundant natural resources, the RCID and the major landowners have created environmental features, such as wetlands and lakes that emulate the function and value of existing natural systems. The continued use of such features in new development areas is encouraged in this element. The element includes an inventory, description, and analysis of the RCID's natural systems. The “Policies” component which precedes this section presents goals, objectives, and policies for effectively managing the ecological balance that must be maintained in the overall planning of the District.

GROUNDWATER AQUIFER RECHARGE

INTRODUCTION

This section of the Comprehensive Plan meets the Florida requirement for a Natural Groundwater Aquifer Recharge Subelement. It addresses the management of subsurface water resources within the District.

The quantity and quality of groundwater are directly influenced by the activities that occur on the ground surface. Thus, land use and development must be regulated in a manner which ensures that groundwater is conserved and protected. Groundwater pollution can be avoided through careful planning of land uses in areas with high recharge potential, management of wastewater and runoff, and regular monitoring to detect potential problem areas.

REGULATORY FRAMEWORK

The Federal Safe Drinking Water Act (PL-523), as amended, sets chemical standards for potable water and requires states to ensure the safety of public water supplies. States are required to work with local governments to map well field areas and develop land use controls to provide long-term protection from contamination in these areas. The federal Environmental Protection Agency (EPA) is required to develop criteria for selecting critical aquifer protection areas; state and local governments are to map the areas and develop protection plans. Upon approval of the plan, the EPA may enter into an agreement with the local government to implement it.

Pursuant to the Florida Safe Drinking Water Act (Chapter 403, Florida Statutes), the Florida Department of Environmental Protection (FDEP) has developed rules classifying aquifers and regulating their use. The FDEP also has established regulatory requirements for facilities that discharge to groundwater and inject materials directly underground. In 1995, the FDEP adopted an aquifer protection rule which limits activities within 500 feet of a potable water well. RCID's standards are stricter than the FDEP standards.

The South Florida Water Management District (SFWMD) is responsible for defining and inventorying groundwater resources and levels, identifying prime recharge areas, and assisting the RCID in aquifer protection. The SFWMD issues permits for wells and other water facilities; manages surface water storage; and regulates withdrawal, discharge, and injection. The RCID Planning and Engineering Department is responsible for ensuring compliance with state and federal regulations.

Orange and Osceola Counties have initiated a number of programs to protect groundwater. Orange County can require that recharge facilities be incorporated in projects located in high recharge areas. These facilities may retain runoff on-site for percolation to the aquifer. Osceola County has been divided into four water districts that regulate the supply and distribution of water and the construction of new water facilities. Each county monitors water quality near landfills, drainage wells, and other areas where the potential for groundwater contamination exists. The RCID conducts groundwater monitoring in areas adjacent to hazardous waste-holding areas and effluent disposal sites, and around potable water wells. There are 10 groundwater monitoring wells at the rapid infiltration basins, and six wells located at various points where treated effluent is used for irrigation. Quarterly monitoring reports are prepared demonstrating compliance with FDEP standards.

RECHARGE CHARACTERISTICS

Characteristics of the Aquifer

There are two main aquifers in the RCID vicinity: a surficial aquifer and the Floridan Aquifer. The two aquifers are usually separated by clayey sands known as the Hawthorne Formation, which ranges from zero to 200 feet in thickness. Some parts of the Hawthorne Formation contain limestone and provide secondary aquifers.

The surficial aquifer lies just below the ground and is contained within the Recent, Pleistocene, and Pliocene rock system. This aquifer may be at or near the surface in wetland areas but is well below ground in the higher elevation areas. It may extend to depths of 200 feet. Because the surficial aquifer is not capped by impermeable rock, its upper level (also called the water table) fluctuates with precipitation. The surficial aquifer is primarily composed of quartz sands, depending on its clay content. It is relatively porous and can store water prior to infiltration to the Floridan Aquifer.

The Floridan Aquifer underlies much of Central Florida, including the District. This aquifer is a formation of permeable rock that absorbs and retains large quantities of water. The Floridan Aquifer provides the agricultural, commercial, and domestic water supply for all of Orange and Osceola counties. Although it contains an abundant quantity of water, the supply is finite and must be constantly replenished. This occurs either naturally through precipitation, or artificially through injection wells or percolation.

The Floridan Aquifer is confined by an impermeable layer that naturally pressurizes water. In some cases, the pressurization is sufficient to bring water to the surface without pumping when wells are drilled. Such wells are classified as "artesian" (the elevation to which water is naturally drawn by a well is called the potentiometric

surface). Within the Floridan Aquifer, there are two limestone formations that are separated by a semi-permeable layer. The Avon Park Formation is the upper producing zone that lies about 150 to 600 feet below the ground surface and is between 400 and 600 feet thick. The Lake City Formation, the lower producing zone, lies 1,100 to 1,500 feet below the ground surface and may be as thick as 2,000 feet.

The Floridan Aquifer contains numerous cavities, permitting high transmission of water within the system. Water flows continuously throughout the cavities and moves from formation to formation as water is withdrawn and recharged. Water quality in the aquifer is good; in the District only chlorination is required prior to domestic consumption.

The surficial aquifer generally produces water under non-artesian conditions. These conditions occur where the upper surface of the zone of saturation is not confined and water is free to rise and fall directly in response to variations in recharge and discharge. The water is contained in sediments of quartz sand and the aquifer is irregular in thickness and composition. Wells 20 to 40 feet deep may yield five to ten gallons per minute (gpm) of water. By contrast, wells in the Floridan Aquifer yield up to 3,500 gpm. The surficial aquifer generally is not used for potable water supply.

Several artesian aquifers may exist 40 to 90 feet below the ground surface within the confining beds of the Hawthorne Geologic Formation. In the District, the Hawthorne forms a somewhat impervious barrier between groundwater and the Floridan Aquifer. It may contain pockets of porous materials from which limited supplies of water could be obtained.

Factors Affecting Recharge

Recharge potential is based on the amount of rainfall that occurs in an area; the conductivity, size, and extent of the surficial aquifer; the height difference between the water table of the surficial aquifer and the potentiometric surface of the Floridan Aquifer; the number and extent of sinkholes breaching the Hawthorne Formation; and the conductivity of the Floridan Aquifer. Soil and topographic surveys provide the best indicator of these characteristics and provide much of the basis for distinguishing areas with high recharge potential. High recharge areas include areas of coarse, sandy soils, and sinkholes, with water tables well below the surface. Recharge in the high areas may be up to 20 inches a year.

Recharge may also occur artificially, through injection wells. Artificial recharge also occurs through rapid infiltration basins, which allow highly treated effluent to percolate back to the aquifer from man-made ponds. Although artificial recharge replenishes the aquifer, its downside is the increased risk of groundwater contamination, particularly where stormwater runoff is injected directly into the Floridan Aquifer.

Sinkhole Potential

A summary of sinkhole potential at the District was performed as part of the application for renewal of the SFWMD Consumptive Use Permit in 1996. The potential for sinkhole formation within the RCID is described in that application as low, and the likelihood that groundwater withdrawal will induce sinkholes is also described as low. No sinkholes have been observed within the RCID during recent years. The rapid infiltration basins are visually inspected weekly for evidence of sinkhole activity.

Recharge Characteristics of the RCID

Although portions of the District have potentially high recharge characteristics, there are no areas within the RCID that have been designated by the South Florida Water Management District (SFWMD) as prime recharge areas. The SFWMD published a groundwater recharge potential map for Central Florida in 1996; recharge potential in the District as shown on the SFWMD map is displayed in Figure 6-1. Because of the large-scale nature and numerous assumptions inherent within the data bases employed for completion of the recharge potential mapping project, the resulting map product is intended to be used only as a regional groundwater management planning aid. District specific data and knowledge of soil types, land use and cover, and elevation confirm the limitations of the SFWMD map. Figure 6-2 uses soils, land use and cover, and to a lesser extent elevation, to show areas within the District with the highest recharge potential.

The potential for recharge is highest in the District's sandy, well-drained soils, which are concentrated in the area along SR 429 Road. This area also contains the highest surface elevations in the District and has characteristics that allow surface water to percolate to the aquifer. The balance of the District, including the theme parks and resort areas, are dominated by poorly drained soils that have low recharge characteristics. Recharge areas must be sufficiently high in elevation so that surface water can infiltrate against its upward-tending groundwater pressure.

Stormwater retention facilities are also used to accomplish groundwater recharge. The District's entire system of water control structures is designed to retain and maintain shallow groundwater elevations similar to those that existed in pre-development times, while at the same time providing a conveyance and flood control mechanism. In 1991, the District completed 85 rapid infiltration basins on the western side of the District. The basins are located in the area identified on Figure 6-1 and Figure 6-2 as having the highest recharge potential. A site specific analysis of groundwater recharge potential is required for all development projects five acres or greater.

Figure 6-1: Recharge Potential – SFWMD Map

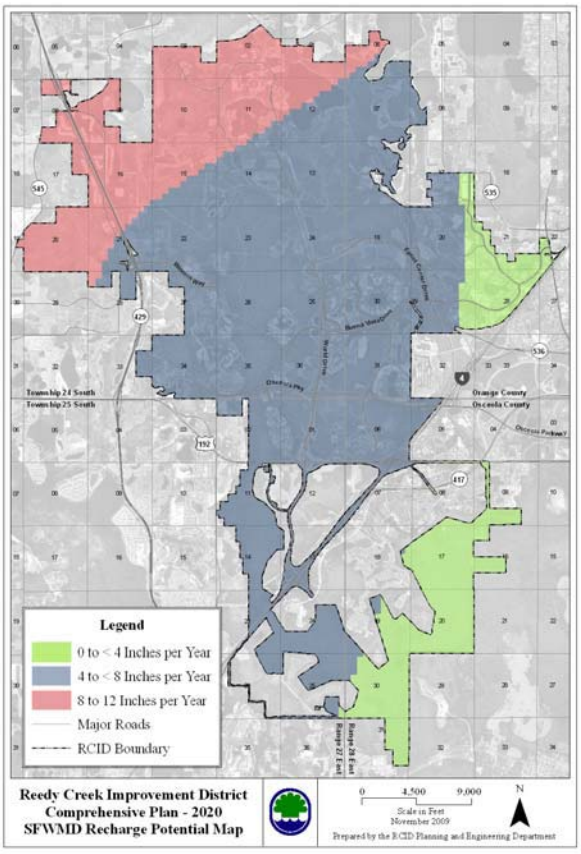
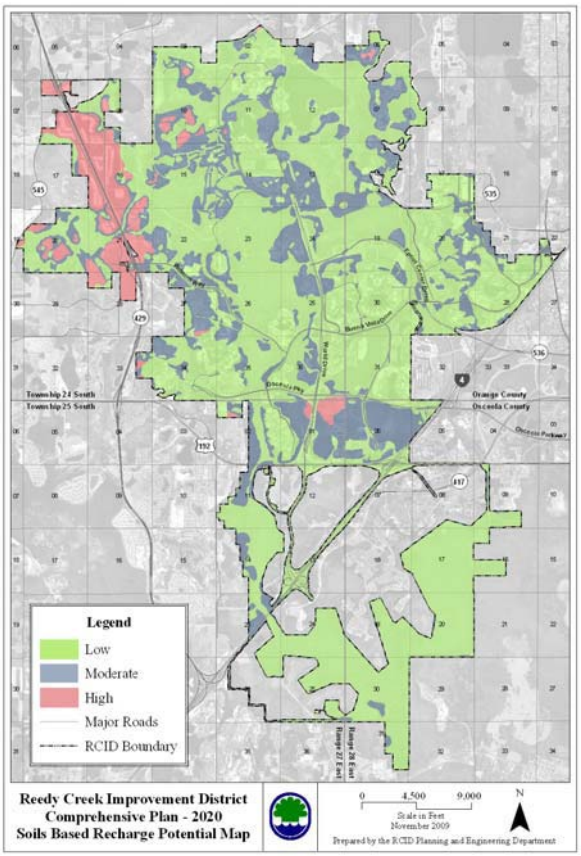


Figure 6-2: Recharge Potential Map – Soil Based



WITHDRAWAL CHARACTERISTICS

In Central Florida, groundwater withdrawal is regulated through consumptive use permits from the St. Johns or South Florida Water Management Districts. The RCID is permitted to withdraw up to 8.552 billion gallons annually, or 22.2 million gallons per average day. Actual withdrawal in 2008 was 5.962 billion gallons or about 15.55 million gallons per average day. This represents about 70 percent of the permitted amount. Additional information on the District's wells and withdrawal patterns is contained in the Potable Water Subelement of the Comprehensive Plan.

As a result of rapid development, groundwater withdrawal has increased both in the District and in the surrounding region. In the RCID, annual consumption rose about 5.0 billion gallons in 1990 to over 7 billion gallons in 2000. Since peaking in 2000, the annual consumption in the District has declined to between 5.5 billions gallons and 5.8 billion gallons. The RCID has taken a number of proactive measures to reduce the rate of withdrawal and increase the rate of recharge. Implementation of the treated effluent reuse program, described in the Potable Water Subelement, has resulted in the reduction in potable water requirements for new development some existing development and has reduced the rate of growth in groundwater withdrawal. At the same time, the rate of recharge has been augmented as a result of the rapid infiltration basins. The RCID basins are located in an area with high recharge potential and offer significant environmental benefits. Extensive hydrological and geological tests have been carried out to ensure that treated effluent is sufficiently filtered by the time it reaches the aquifer. Groundwater monitoring wells have been drilled in this area to ensure that aquifer water quality is maintained in the vicinity of the basins.

WATER QUALITY CONSIDERATIONS

Certain land uses and activities are potential sources of contamination and can pose a threat to groundwater under certain conditions. Industrial uses, such as manufacturing and processing plants, may use liquids and solids that can mix with water if not properly disposed of or contained. Percolation from retention ponds or borrow pits adjacent to these uses may transport diluted hazardous wastes to the aquifer. Similarly, absorption of pesticides in agricultural areas may result in groundwater contamination. Both kinds of risks can be minimized through sound land use planning and management guidelines defined by the U.S. Soil Conservation Service (Best Management Practices).

Groundwater problems have been rare in the Orlando metropolitan area, but increased urbanization creates potential new risks. The potential sources of groundwater pollution in the RCID, namely the construction landfill, underground storage tanks, septic tanks, hazardous waste holding areas, and industrial (support service) areas, are all managed in a manner that minimizes potential risks. The District's development has generally occurred in areas with low recharge potential. The semi-confining sedimentary formation between the surficial aquifer and Floridan Aquifer further reduces the potential for contamination.

As development continues in the District and the surrounding area, conservation of groundwater and protection of groundwater quality will remain an important priority of the RCID. The District has defined cones of influence around its wells and its land development regulations ensure that the activities that occur in these areas do not conflict with water quality objectives. All development except water pumping facilities, roads, and parking are prohibited within a 200-foot radius of potable water wells. Retention and detention ponds are prohibited within a 300-foot radius and septic tanks, landfills, hazardous materials, and wastewater plants/ sludge are prohibited within a 400-foot radius. Variances from these standards are only permitted if appropriate mitigation measures (such as underdrains and concrete berms) are implemented.

Groundwater quality will continue to be monitored at various locations around the District to guarantee the safety of the local drinking water supply and ensure that groundwater levels are maintained. Finally, the District's continued efforts toward improving surface water quality (through advanced wastewater treatment and retention ponds) will provide groundwater quality benefits because of the high transmissivity between surface water bodies and the aquifers.

SURFACE WATER AND WATER QUALITY

SURFACE WATER CHARACTERISTICS

The RCID lies in the northern tributary sub-basin of Reedy Creek, which is part of the Kissimmee River Drainage Basin. Major tributaries to Reedy Creek are Whittenhorse, Davenport, and Bonnet Creeks. Cypress Creek is a northern tributary to Bonnet Creek. Within the District, Bonnet Creek (C-1 Canal) and Reedy Creek are the major drainage basins (see Figure 6-3). These sub-basins collect stormwater runoff from the eastern and western portions of the District, respectively.

The Reedy Creek Basin is characterized by low, undulating hills; relatively flat uplands; wide, swampy valleys; man-made canals; and lakes. The lakes and swamps retain large quantities of runoff, overflowing across wide, shallow marshes during the normally wet summer months and other periods of heavy rainfall. The Bonnet Creek Basin is characterized by similar upland terrain, but has less water entering the wetlands and more diverted into canals. The Bonnet Creek system is controlled at several locations by man-made structures, whereas the Reedy Creek system uses the natural characteristics of the existing riverine section south of the L-405 Canal to control flow.

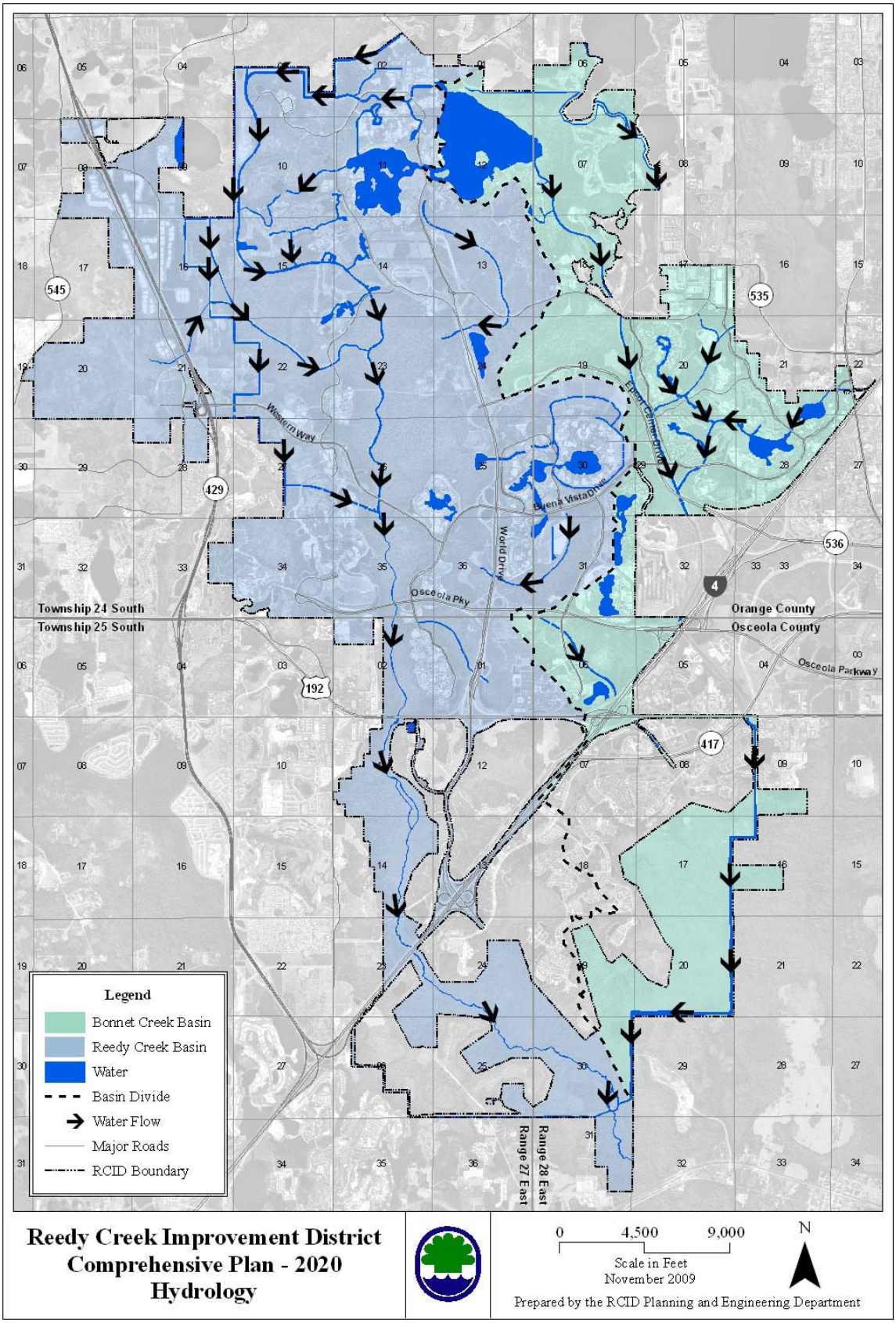
Since 1967, drainage in the District has been improved with the use of canals, levees, culverts, and automatic flow-control structures. Drainage is characterized by relatively slow runoff rates and a high proportion of storage in lakes, ponds, and wetlands. The stormwater storage capacity in the District includes a portion of the Conservation area located along Reedy Creek north and south of Interstate-4. The RCID operates water-control structures designed to simulate the actual hydrologic conditions that would occur without these structures. Other surface water features in the District are listed in Table 6-2 and include Bay Lake, Seven Seas Lagoon, World Showcase Lagoon, Village Lake, Lake Buena Vista, Club Lake, and ponds and borrow pits. There are approximately 1,346 acres of surface waters in the RCID.

Table 6-2: Major RCID Surface Waters

Name	Surface Area (acres)	Surface Elevation
Bay Lake	406	94.5
Seven Seas Lagoon	185	94.5
World Showcase Lagoon	40	94.0
Village Lake	35	90.0
Lake Buena Vista	23	94.3
Club Lake	12	90.0
Magic Kingdom Waterways	12	94.0
Reedy Lake (part)	5	94.0
Canals, ponds, borrow pits, creeks, etc.	809	67.0—94.5
TOTAL	1,527	

The water levels of the Magic Kingdom waterways, Bay Lake, Seven Seas Lagoon, Club Lake, Village Lake, and Lake Buena Vista are regulated by water-control structures. Bay Lake, which is connected to Seven Seas Lagoon, has controlled outlets to the headwaters of both Bonnet and Reedy Creeks. Lakes tributary to Bonnet Creek include South Lake, Lake Mabel, Village Lake, Club Lake, and Lake Buena Vista. An extensive canal network provides conveyance of excess flow from these lakes to both Reedy and Bonnet Creeks. Lake Buena Vista supplies surplus water to Club and Village Lakes. Lake Buena Vista is a natural lake with fluctuations in water level dependent on rainfall, evapotranspiration, and groundwater inflow.

Figure 6-3: Hydrology



Reedy Creek's existing natural drainage systems require continued maintenance. Clearing and snagging of debris in streambeds, in lieu of channelization, is used wherever possible by the District to increase the flow rate. At the inception of the District, a reclamation plan was developed to maintain, as nearly as possible, natural ground and surface water levels within the framework of flood protection during periods of extreme rainfall. To accomplish this, a system of canals, water-control structures, and levees was designed in accordance with state laws governing water control plans.

The RCID Plan of Reclamation was approved in 1966, and a major portion of the improvements were constructed and in operation by 1971. The South Florida Water Management District periodically issues permits for the continued operation of water control facilities.

Previous studies by the RCID have documented the quantity and quality characteristics of incoming surface water and the surface water discharged downstream, together with intensive investigations of shallow and deep water aquifers. Because these studies are expected to continue in the future, the District will be able to effectively plan its water related facilities to avoid or mitigate adverse impacts on the environment. Furthermore, the reports provide valuable data relative to the effects of growth and development on water resources.

WATER QUALITY

The District maintains water quality in its surface waters to meet Class III (Recreational Use) standards. Most of the recreational lakes are of higher quality than the Class III criteria. The District has a state-of-the-art environmental laboratory, the staff of which regularly monitors surface water and groundwater quality conditions. The monitoring program for drinking water has been certified by the Florida Department of Environmental Protection. Monitoring is done by District's Environmental Services Department, in coordination with the Planning and Engineering Department. An annual report summarizing water quality data is submitted to the RCID Board of Supervisors.

Reedy Creek is sampled weekly for measurements of dissolved oxygen, Ph, total phosphorus, and total nitrogen. Heavy metals, pesticides, and herbicide conditions are sampled semiannually at various locations throughout the District. Macro-invertebrates are sampled quarterly in Reedy Creek and in other locations as needed.

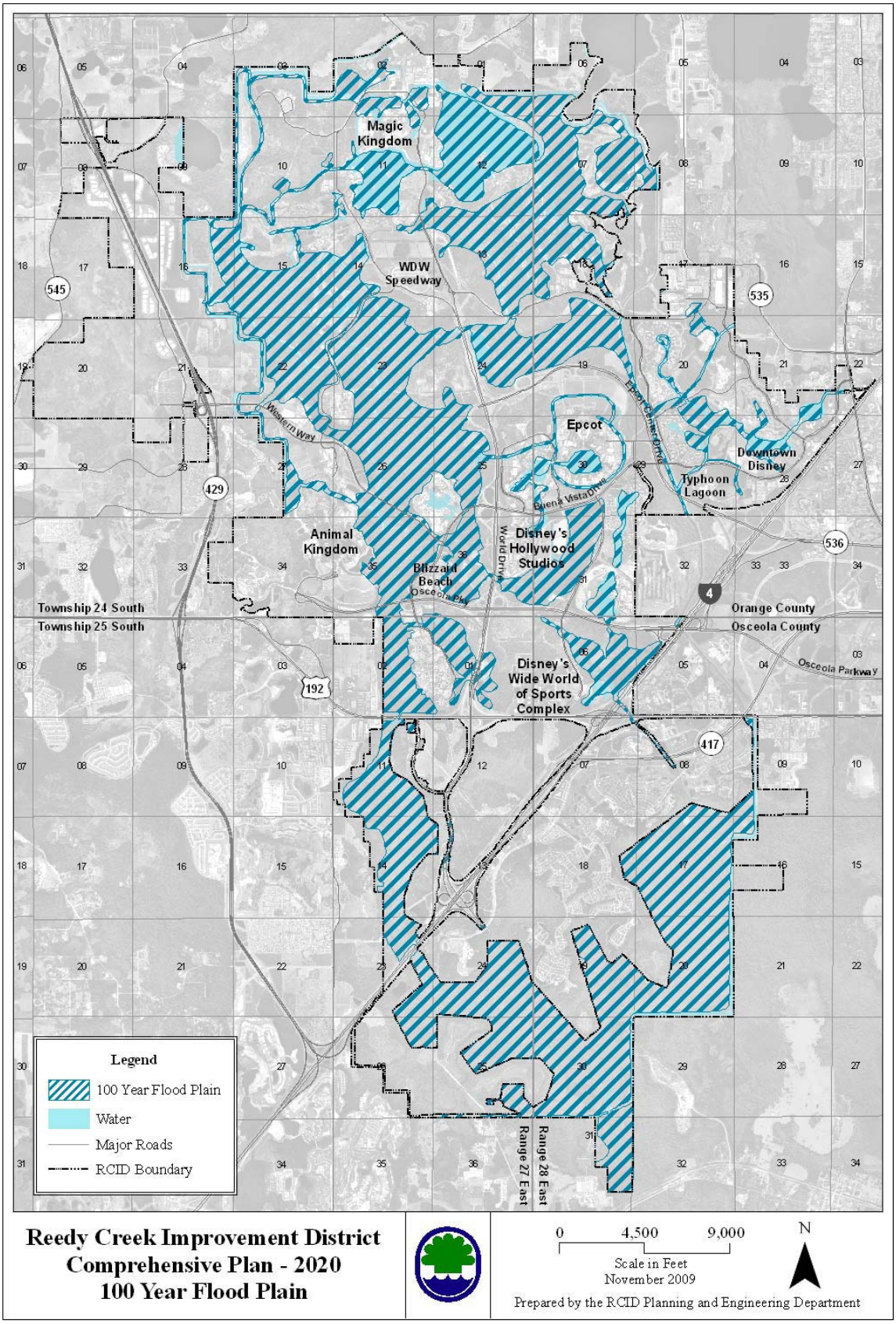
As development occurs in the Reedy Creek drainage basin the potential for surface water pollution increases. Water quality is affected by both point and nonpoint sources. Until the early 1990s, the principal point source in the District was the wastewater treatment facility, since that facility once discharged treated effluent into Reedy Creek and adjacent wetlands. The shift in wastewater effluent disposal from an "outfall" type system to rapid infiltration basins and effluent recycling, combined with the upgrade from secondary to tertiary treatment have decreased nitrate concentrations in Reedy Creek and its wetlands. The principal nonpoint pollution source is stormwater runoff. Runoff impacts on surface waters are somewhat mitigated by the use of retention/detention ponds to capture and filter runoff adjacent to developed areas. The District continues to explore and implement new programs to reduce pollution of surface waters from urban runoff.

FLOOD PLAIN

The District conducts regular mapping of the 100-year flood plain in the Bonnet Creek and Reedy Creek drainage basins north of the S-40 control structure. A drainage model is used to simulate the impacts of a 100-year storm. The model is periodically updated to reflect increases in impervious surface coverage and changes to the drainage system. Figure 6-4 indicates the boundaries of the flood plain as of 2008. These boundaries encompass 10,656 acres.

Limiting development in the flood plain protects public safety and minimizes potential property damage. Flood plain conservation also aids in maintaining the natural drainage system in the District and in preserving ecologically sensitive areas that are periodically inundated. At the present time, the 100-year flood plain consists of portions of the Fort Wilderness campground and nearby golf courses, and large areas that are undeveloped and managed for conservation. These areas contain relatively few structural improvements.

Figure 6-4: Flood Plain



PRECIPITATION

The average annual rainfall in the District is 52.7 inches or 35.7 billion gallons of water. Approximately 36.9 inches of the total annual rainfall, or 25 billion gallons, is returned to the atmosphere through evaporation from land and water surface and through plant transpiration. Another 10.5 inches, or 7.1 billion gallons, of the annual rainfall is discharged through runoff into the District's streams and water control system. Generally, the remaining 5.3 inches (3.6 billion gallons) percolates into the soil to replenish the groundwater supply. Rainfall characteristics are summarized in Table 6-3.

Table 6-3: Summary of RCID Water Resources

Rainfall Characteristics	Rainfall Amount (in inches)	Annual Water Yield (Billions of Gallons)
Annual Evapotranspiration	36.9	25.0
Runoff & Infiltration	10.5	7.1
Natural Groundwater Recharge	5.3	3.6
Annual Rainfall	52.7	35.7

NOTE: Formula for Yield: rainfall in feet x acreage x 325,851 gallons per acre-foot.

GEOLOGY, SOILS, AND MINERALS

GEOLOGY

General surface elevations in the District vary from a minimum of 65 feet above sea level to a maximum of 135 feet above sea level (see Figure 5-4). From surface and subsurface samples, the geology appears to consist of approximately 20 to 60 feet of Pleistocene sands overlain on 40 to 90 feet of Miocene (Hawthorne Formation) fine sands, with occasional clay layers. The Pleistocene sands are fine or fine-to-medium grained and are somewhat silty or clayey. They may be overlain by organic materials at the surface. Along the west boundary of the District, there are sand dunes believed to be relic shoreline features from sea level fluctuations during the Pleistocene epoch.

SOILS

Soils with similar profiles constitute a soil series. All the soils of one series are similar in thickness, arrangement, and other important characteristics. Soils of one series may differ in texture of the surface layer and in slope, or some other characteristic that affects use of the soil. On the basis of such differences, a soil series is divided into phases. The name of the soil phase indicates a feature that affects land use management, such as slope. This information can be used to evaluate sites for roads, buildings, and other structures, and to determine the suitability of the soils for agriculture, recreation, or industry, and groundwater recharge.

The general characteristics of soils in the District are described below. Figure 6-5 identifies the location of the major soil types.

Generalized Soil Types

Soils of the Uplands and Low Ridges – This category includes the Candler and Tavares soil series found in the northwest part of the District. The soils are nearly level to gently sloping and are excessively drained. They are located on upland areas and are sandy and highly permeable throughout. A seasonal high water table is located at a depth of more than 80 inches. The soils are typically used for citrus crops or pasture. Candler soils require little or no corrective measures when developed. In the RCID, the Candler and Tavares soils have been developed with rapid infiltration basins.

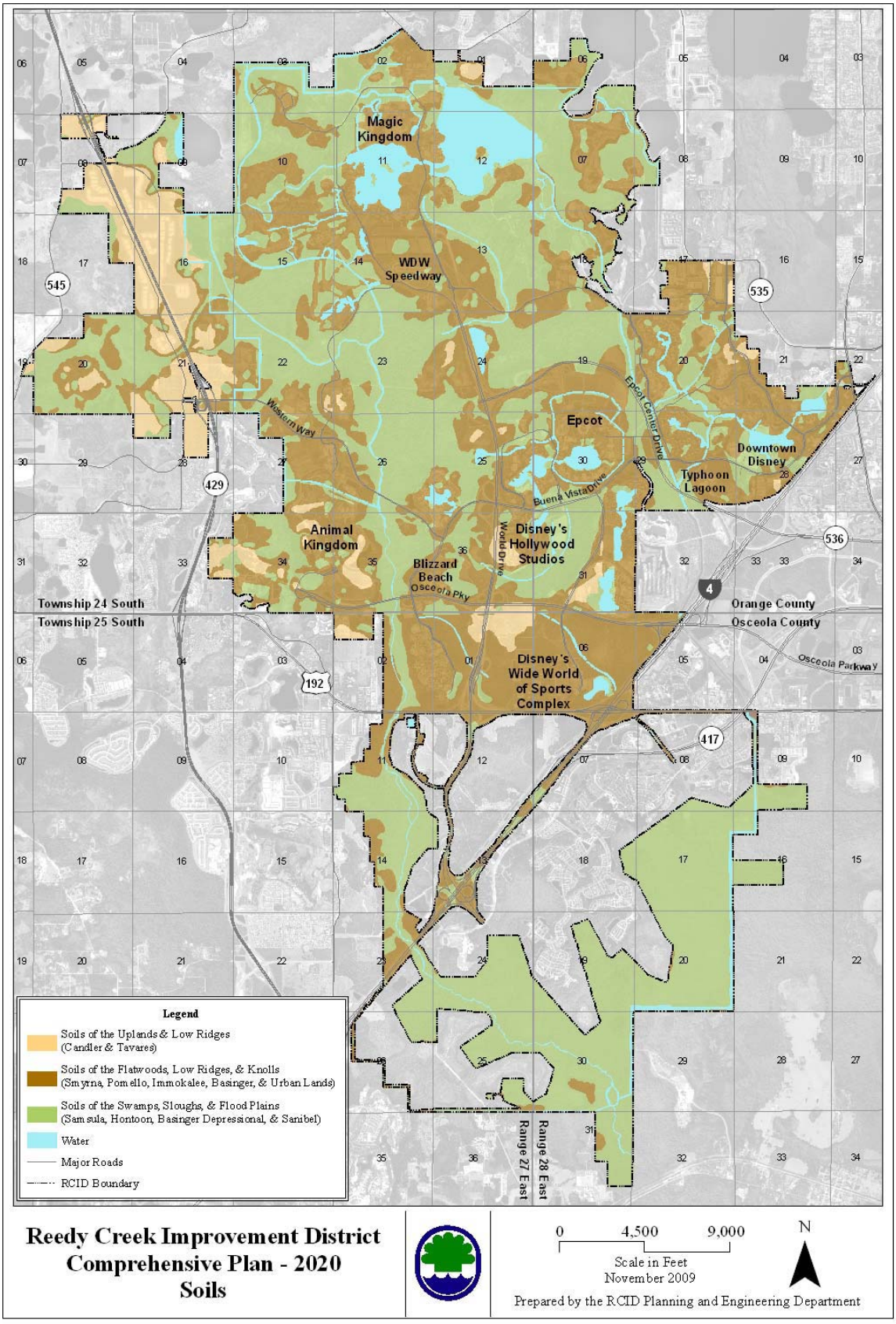
Soils of the Flatwoods and Low Ridges – These are the predominant soil types in the urbanized portions of the District. They occur in broad flatwood areas interspersed with low ridges and knolls. Representative soils include the Smyrna, Pomello, Myakka, and Immokalee Series, as well as Basinger Fine Sand. These soils are nearly level and poor to moderately well drained. In many areas, the water table is close to the surface for several months of the year. The natural vegetation on these soils consists of longleaf and slash pine.

The upper layers of these soils are typically sandy. Permeability is rapid in the surface and subsurface layers and moderate in the subsoil. Some of the soils are considered well suited for citrus crops and pasture. Due to the wetness of the soil and high water table, and the high sand content, these soils have a number of limitations for road and building construction. Water control measures and stabilization are typically required to accommodate urban development. Consequently, within developed areas, many of the soils in this association have been overcovered or mixed with other soil types through fill and earthmoving operations.

Soils of the Swamps, Sloughs, and Flood Plains – This category includes the Samsula, Hontoon, Floridana, Riviera, and Terra Ceia soil series, and Basinger depressional soils. Most of these soils correspond to freshwater swamps and marshes or low-lying flood plain areas. The soils are nearly level and are poorly to very poorly drained. The soils may be flooded for long periods after heavy rains and typically have a water table within 10 inches of the surface for more than half the year. The areas may be ponded for several months of the year.

Under natural conditions, these soils have many limitations for agricultural and urban uses. Flooding and wetness limit their suitability for urban uses, and major flood control facilities are typically required before these soils may be developed. In some locations, drainage improvements have altered the natural conditions on some of these soils and reduced some of the naturally occurring development constraints.

Figure 6-5: Soils



Classification System

The capabilities and limitations of soils are used as a planning guide in selecting desirable development sites or road corridors and as a basis for further investigations. In no way do the general classifications described in the Comprehensive Plan eliminate the need for detailed on-site studies and tests required in the planning, design, and construction of a specific project. Soil limitations are classified as slight, moderate, severe, and very severe.

Drainage and Recharge

The drainage and recharge capabilities of each soil type in the District are described below. Soils with essentially the same characteristics have been grouped together to form the following four categories:

Excessive Drainage, High Recharge – These soils are excessively drained, with the water table usually five feet or more below the surface. Recharge of the Floridan Aquifer most likely occurs in these areas. The Candler and Tavares series (see Figure 6-5) fall in this category. Land uses that accommodate recharge and minimize risks to groundwater quality should be planned in these areas.

Moderate Drainage, Secondary Recharge – These soils are moderately drained, with the water table two to five feet below the surface. High water loss from evapotranspiration makes aquifer recharge somewhat less likely than compared to high recharge areas.

Poor Drainage, Poor Recharge – The water table of the soils in this category is at or near the surface during much of the year. While surface sands are permeable, underlying confining beds have a high clay content, thus allowing only minimal aquifer recharge.

Very Poor Drainage/Swamp, Very Poor Recharge – These soils are inundated for much of the year. In many of these areas, no recharge to the Floridan Aquifer can occur under natural conditions.

Soil Erosion

Soil erosion is effectively managed and monitored by the District. Erosion by wind and surface runoff is reduced to a minimum through the use of:

- Best Management Practices during construction;
- A well-managed and maintained water control system; and
- Retention of natural vegetation in undeveloped areas.

During construction, exposed sites are watered frequently, natural windbreaks are left in place, and detention ponds are used to cleanse surface runoff prior to discharge off-site. Temporary outfall locations are protected with filter fabric fencing and hay bales.

The District policy of retaining land in its natural state prior to development greatly reduces wind and water erosion. The District water control plan requires maintenance of canals, and as conditions warrant, all canals are dredged to remove silt deposits. Canal slopes are also maintained through periodic reshaping and monthly mowing.

MINERAL DEPOSITS

The District contains an abundance of sand. Its degree of purity and consistency is of no commercial value other than as a source of fill dirt for construction and highway purposes. There are a number of excavation sites in the District where sand has been extracted for construction.

AIR QUALITY

The District does not currently monitor air quality. Orange County operates two sampling stations at which all federal air quality standards are monitored. The location nearest to the RCID is located in Winter Park, about 20 miles to the northeast. Carbon monoxide, nitrogen oxides, ozone, sulfur dioxide, PM_{10}, wind speed, and wind direction are measured at this location. More limited air pollution data is collected at other locations in the region. The closest location at which ozone is measured is the Kissimmee station, located about four miles from the Magic Kingdom.

On March 12, 2008 the U.S. Environmental Protection Agency (EPA) lowered the National Ambient Air Quality Standard for ozone, the principle component of smog. Both the primary and secondary standards are now 75 parts per billion. Both standards are evaluated over an eight-hour time period, and compliance is based on the three-year average of the annual fourth highest maximum daily eight-hour concentration. It is possible that Orange County could become a nonattainment area as a result of the lower federal standard. However, DEP maintains recent nitrogen oxide control equipment requirements for power plants, new state rules requiring control of gasoline vapor emissions from gas stations in all counties, and EPA emission control rules for new passenger cars, diesel trucks, and buses will reduce ozone level in Florida. A summary of 2006 data from the Winter Park station is shown in Table 6-4.

Table 6-4: Orange County Air Quality Measurements

Parameter	State Standard	Measurement	2006 Average
Total Particulate Matter	150	Micrograms per cubic meter in 24 hr. period	37
Ozone	120	parts per billion in eight hour	83
Carbon Monoxide	35	parts per million in one hour	2
Sulfur Dioxide	20	parts per billion annual	1
Nitrogen Dioxide	0.05	parts per million in one hour	0.05

SOURCE: DEP 2006 Florida Air Monitoring Report

Orange County also monitors an “Air Quality Index” daily at eight locations throughout the county. The Index includes a combination of the ozone measurement and the particulate matter measurement. An Index number of 50 to 100 indicates moderate air quality while an index of 0-50 is considered good. Data for 2006 shows that the Air Quality Index for Orange County measured in the Good category 293 days, in the Moderate category 71 days, and in the Unhealthy for Sensitive Group only 1 day.

FLORA AND FAUNA

The natural vegetative communities of the RCID fall into two general categories: forested uplands and wetlands. The forested uplands consist primarily of coniferous forest, hardwood forest, and mixed forest. Wetland communities include forested wetlands, mixed wetlands, and marshland. The District's ecological communities are categorized according to the Florida Land Use and Cover Classification System.

PLANT COMMUNITIES

Forested Uplands

Forested uplands (shown in Figure 6-6) include the drier areas of the District. They have a tree-crown density of 10 percent or more and consist of trees capable of producing timber or other wood products. The following communities are represented:

Coniferous Forest – Any natural forest whose canopy is at least two-thirds dominated by coniferous species is classified as a Coniferous Forest. At approximately 693 acres, this is the largest vegetative community of uplands in the District. It is primarily composed of pine flatwoods, slash pine, and upland pond pine.

- **Pine Flatwoods –** This plant community represents most of the District's coniferous forest acreage. It is dominated by longleaf pine on the drier sites and slash pine on the wetter ones. Typical understory includes saw palmetto, wiregrass, wax myrtle, fetterbush, and gallberry. Fire and water create major stress conditions; when they are non-existent, a successional move to hardwoods will result. This community has good wildlife values and is well suited to deer, raccoons, squirrel, quail, and many songbirds.

- **Slash Pine –** This is a transitional vegetative community including pine flatwoods with successional hardwoods in the understory. These occur in relatively small areas, mainly adjacent to wetlands. There are just over 200 acres of slash pine forest within the District.

- **Upland Pond Pine –** Upland pond pine communities are typically located on the fringes of wetlands. The pond pine is relatively fire resistant and is particularly successful in reestablishing itself after a fire. It occurs in association with sweetgum and pond cypress.

- **Other Pine Communities –** Smaller areas within the District are vegetated with longleaf pine/ xeric oak, sand pine, and mixed pine forest.

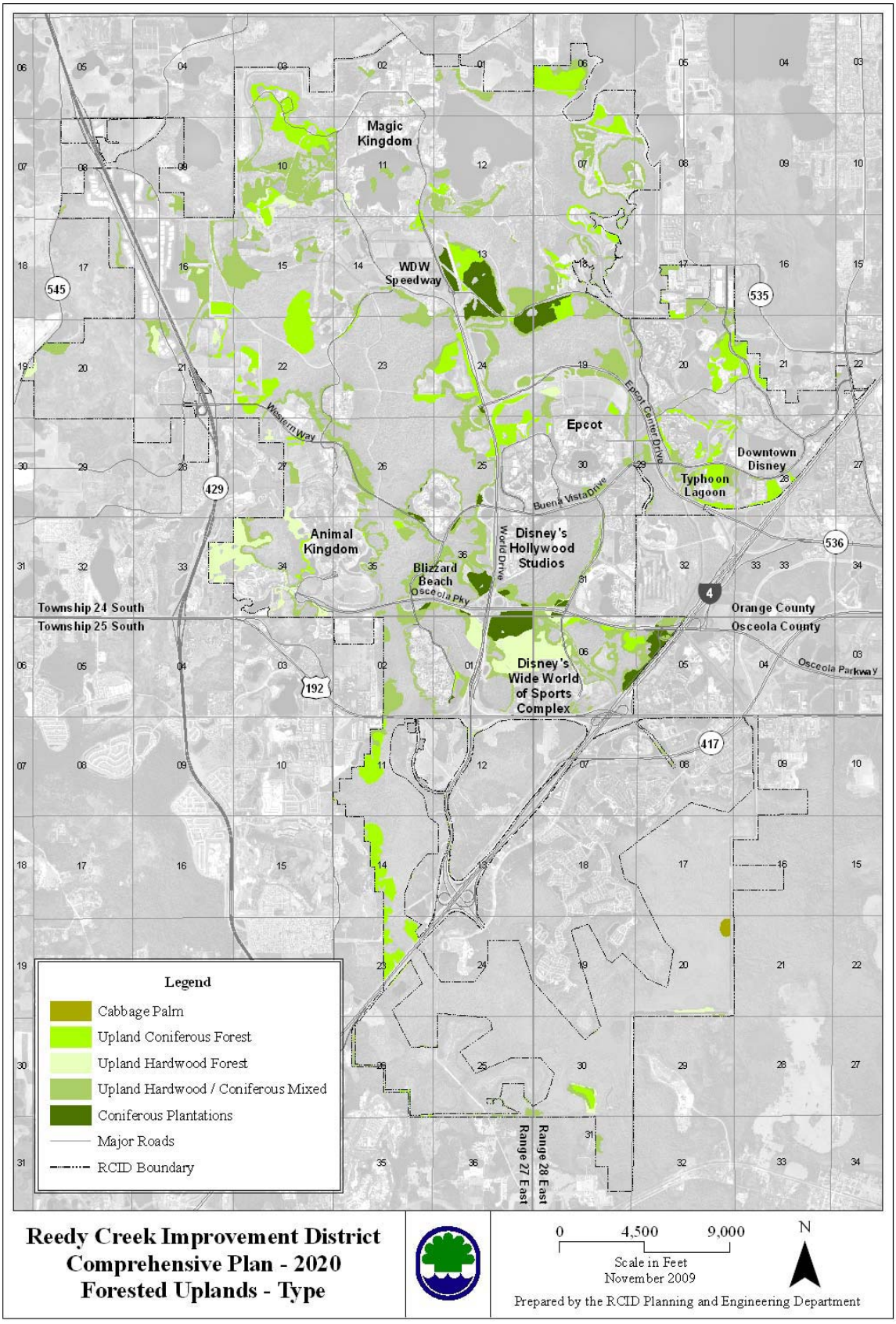
Hardwood Forest – A hardwood forest has a dominant tree crown of hardwood species as a result of natural seeding. As shown in Figure 6-6, this area is primarily located north of Disney's Wide World of Sports and west of Animal Kingdom. Hardwood forest represents just over one percent of the District's naturally vegetated area. Xeric oak is the dominant community and is described below.

- **Xeric Oak –** Generally located on well-drained upland sands, this forest area is dominated by xeric oak. Typical species are live oak and turkey oak. This is a relatively small community that occurs on low ridges within depressed topographical areas.

- **Other Hardwood Communities –** Other hardwoods in the District include upland hardwood forest, wax myrtle-willow, live oak, cabbage palm, and mixed hardwoods. These areas represent a combined total of less than 50 acres. Trees within these areas include holly, flowering dogwood, laurel oak, live oak, sweetgum, and willow. Understory vegetation includes American beautyberry, sparkleberry, wax myrtle, aster, greenbriar, wild grape, yellow jessamine, blackberry, and panicum. This type of vegetation makes a good habitat for deer, turkey, squirrels, raccoons, and many songbirds.

Mixed Forest – As shown on Figure 6-6, a few areas of mixed forest occur in the District. These areas consist of forested areas in which neither coniferous nor hardwood species dominate. Native vegetation includes turkey oak, live oak, longleaf pine, wiregrass, gallberry, and saw palmetto. The largest mixed forest areas are located on the edges of the Magnolia Golf Course.

Figure 6-6: Forested Uplands



Wetlands

There are approximately 11,375 acres of wetlands in the RCID, representing 46 percent of the District's total area and more than 89 percent of its naturally vegetated areas. Wetlands are divided into three major categories; forested wetlands, mixed wetland, and marshland. Wetlands are shown on Figure 6-7. Shallow areas of water with submerged vegetation are classified as water and not included in this category.

Within wetland areas, the water table is at, near, or above the land surface for significant portions of most years. Soils are very poorly drained and are high in organic and mineral content. The quality of the wetlands within the District varies, with those located south of US 192 generally considered to have higher ecological value. Many of the northerly wetlands have been disturbed or partially disturbed as a result of drainage improvements and adjacent development. The RCID has raised water control elevations on some of the canals to restore impacted wetlands, but full restoration has proven to be difficult on a large scale basis.

Forested Wetlands – A forested wetland is any wetland with a significant component of woody vegetation. About 95 percent of all wetlands in the District fall into this category. Plant communities include cypress, pond pine, wetland hardwoods, bay swamps, shrub wetland, slash pine, stream and lake swamps, titi swamps, and wetland forested mixed.

Cypress Wetlands, Pond Pine Wetlands, and Slash Pine Wetlands. These three wetland types are found primarily in the Reedy Creek swamp south of US 192. A large cypress swamp is located within District boundaries to the east of Celebration. Typical plants in the cypress swamp are bald cypress, pond cypress, black gum, and maple. Understory plants include buttonbush, wax myrtle, cinnamon fern, greenbriar, and narrowleaf sawgrass. Pond pine dominates the small wetlands in the southern part of the District west of Reedy Creek, mostly on wet, flat land with low pH soils. A narrow band of Slash Pine wetlands is located just north of EPCOT Center. The submerged and saturated condition of the soils of pine wetlands and the general absence of fires reduces competition from hardwoods and keeps the communities from successional change. Coniferous wetlands are a valuable resource. They provide water storage areas by holding excess water and slowly releasing it into the water table. By absorbing nutrients from the water, cypress swamps enhance water quality. Fluctuation of the water table is needed for natural regeneration. Drastic changes in the water table or a stabilized water level may change the plant community. Important as a wildlife refuge area, these wetlands are well suited for waterfowl, wading birds, and aquatic animals. Permanent residents of cypress swamps may be relatively few; however, much of the wildlife of other ecosystems is dependent on these areas for breeding. The most common animals found are deer, raccoons, alligators, frogs, turtles, and water snakes. Many birds are found in this habitat, including anhinga, ibis, egrets, herons, and wood duck.

Shrub Wetland – Shrub Wetlands are located to the south and east of Celebration, just south of the Cypress Swamp area. These wetlands are characterized by a predominance of evergreen shrubs such as sweet pepperbush, large gallberry, and wax myrtle. Pond pine and slash pine may also be present. Water levels are often high, although the surface of these wetland areas may dry during drought periods. An abundance of fruits and shrubs attracts many birds and mammals.

Wetland Hardwoods – Areas of wetland hardwood forest occur west of Animal Kingdom, south of Blizzard Beach, and east of Celebration. As a result of natural seeding, hardwoods dominate the crown closure. Characteristic vegetation includes red maple, pond cypress, black gum, bald cypress, water hickory, and willows. Buttonbush, dahoon holly, cinnamon fern, royal fern, and lyonia are typical understory plants. Wildlife in these areas are adapted to wet conditions. Periodic flooding is essential to maintain this system. Hardwood areas are of great value for wildlife and for maintaining good water quality. The community is highly sensitive

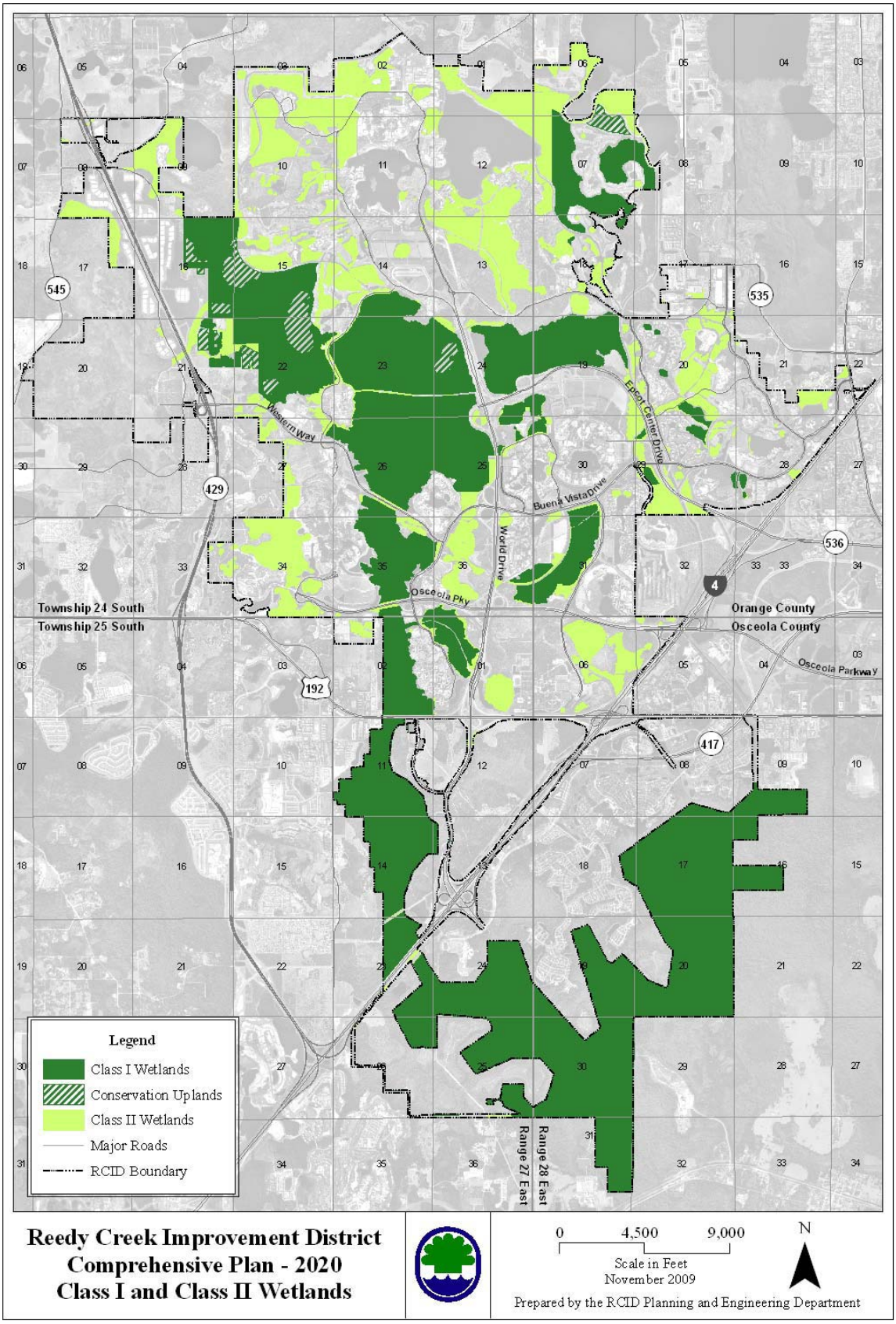
to changes in the water cycle and will change if the water table is lowered. These areas improve water quality and act as natural storage areas for floodwaters. A large variety of wildlife is found in the wetland hardwood community. Typical wildlife includes squirrel, raccoon, otter, wood duck, owls, warblers, woodpeckers, and Carolina wren. Undisturbed areas provide good travel routes for all forms of wildlife.

Bay Swamps, Stream and Lake Swamps, and Titi Swamps – These three wetland communities are actually subsets of the wetland hardwood community. Bay swamps are so named because bay trees such as loblolly bay, swamp bay, and sweetbay predominate. Bay swamps are dominated by evergreen trees and shrubs and typically occur in depressions. Soils are kept moist by seepage from adjacent uplands, providing a refuge for plants and animals and providing highly organic soil often overlain by peat. Such areas are located to the north and east of Bay Lake, northwest of the Magic Kingdom, and in the Reedy Creek Swamp south of Celebration. Titi swamps are a variety of Bay swamps dominated by titi (an evergreen shrub) but sometimes also containing slash pine or pond pine. A small Titi swamp is located southwest of Animal Kingdom. Both Bay and Titi swamps have a dense understory of shrubs. Stream and lake swamps are located along the bottomlands of streams and are characterized by hardwoods like tupelo, water ash, red maple, and sweetgum. These trees are essential to the swamp ecosystem, providing food and shelter for a variety of animals. A Stream and Lake Swamp area is located along both sides of Reedy Creek between US 192 and I-4.

Wetland Forested Mixed – This is the largest plant community in the District and the predominant wetland plant community. It includes most of the Reedy Creek flood plain as well as extensive areas north of EPCOT, west of the Magic Kingdom, southeast of Disney/MGM Studios, west of Hartzog Road, and around the Eagle Pines Golf Course. The community includes a mix of hardwoods and conifers; however, neither the hardwoods or conifers achieve the two-thirds crown dominance in these areas. The area contains broadleaf deciduous and evergreen trees, needle-leaf trees, and a variety of plants adapted for flood plain conditions. These areas are richly endowed with animal life to match their plant species diversity.

Marshlands – A very small number of fresh water marshes and wet prairies occurs in the District. These are vegetated, but non-forested, wetlands. Usually confined to level areas, uniform identification of this category is difficult because long-term drought or high rainfall can change the wetland area. The largest freshwater marsh is located west of World Drive north of EPCOT Center Drive. Sawgrass, cattail, and wet prairie species are the predominant vegetation of a freshwater marsh. They appear as open expanses of grasses, sedges, and other herbaceous plants, such as blue flag, pickerelweed, and pennywort. Marshes are excellent habitats for many wildlife species, including a variety of birds and waterfowl. Animals common to the area are otter, raccoon, marsh rabbit, deer, salamander, frogs, turtles, snakes, alligator, herons, egrets, ibis, limpkins, and hawks. Serving as a filter system, marshes protect rivers and lakes from eutrophication and retain water during drought. As a community, they become highly endangered as variations in water patterns change the plant diversity and productivity.

Figure 6-7: Wetlands



Wetlands Management

Long Term Permits – Due to the sensitive nature of wetlands and their important ecological functions, wetland alterations are subject to extensive regulatory controls. Permits from state and federal agencies are required before wetlands may be filled and extensive mitigation is mandatory. In 1992, certain wetlands within the RCID (excluded from the acreage figure above and not mapped on Figure 6-7) were approved for impact and mitigation through Long Term Permits. The impacted wetlands were limited to those within future development sites outside the District's Conservation Area. They represented about five percent of the total wetland acreage in the District and were generally small isolated wetlands with lower habitat value than the contiguous wetlands in the Reedy Creek flood plain.

The issuing agencies and permit numbers for the Long Term Permits are as follows:

Agency	Permit Number
South Florida Water Management District	#48-00714-S
Florida Dept of Environmental Protection	#48, 49 & 532039239
Army Corps of Engineers	#199101901 (IP-GS)

Through the permits, the District and its major landowners agreed to extensive on-site and off-site mitigation to offset the impacts of development on 729 acres of on-site wetlands. On-site, the size of the Conservation Area was increased to 8,325 acres. A 410-acre wetland north of Epcot that had been degraded by diversion of Bonnet Creek was restored by raising the water elevation several feet. Off-site, the District's major landowners acquired and funded the restoration of the 8,480 acre Walker Ranch, located 13 miles south of the RCID in Osceola and Polk Counties. The ranch is within the Reedy Creek drainage basin and includes xeric, mesic, flatwood, hydric, and aquatic plant communities. Approximately 1,673 acres of wetlands and 912 acres of uplands on the site are being restored or enhanced.

The Long Term Permits also require that a number of practices and policies be adopted by the District to further protect wetlands from development impacts. These are included in the Future Land Use Element of this Plan and have also been codified in the Land Development Regulations. A two-tiered system was set up to classify wetlands. Class I Criteria applies to all areas (wetland and upland) within the Wildlife Management Conservation Area (WMCA), all wetland covered by conservation easements, and all wetland that provide habitat for protected species. All other wetlands not identified for impact are defined as Class II. Figure 6-7 identifies the location of Class I wetlands (and uplands within the WMCA) and Class II wetlands.

The District's policies and development regulations further require that wetlands are protected by an undisturbed upland buffer at least 15 feet wide (and averaging 25 feet wide), and that adjacent development not adversely affect either the wetland or the buffer. Development is not permitted in Class I wetlands. Class II wetlands may be used for passive recreation (i.e., trails) and, in special circumstances, for access and utility corridors. The loss of wetland acreage is strongly discouraged and must be mitigated according to the policies set forth in the Future Land Use Element and Land Development Regulations.

RARE, ENDANGERED, AND THREATENED SPECIES

Since 1970, the RCID has conducted ongoing programs to inventory all plant and animal species within the District. More than 500 species of flora and nearly 300 species of fauna have been identified and/or observed. These species are listed in tables in appendices to this Plan. About 20 of the identified animal species have been identified as threatened, endangered, or species of special concern by the Florida Game and Freshwater Fish Commission or the U.S. Fish and Wildlife Service.

Table 6-1 lists endangered or threatened species, and species of special concern observed in the District. Endangered refers to a species that is, or soon may be, in immediate danger of extinction unless the species or its habitat is fully protected and managed. Threatened refers to a species that is very likely to become endangered in the near future unless its habitat is fully protected and managed. A species of special concern is one that warrants special protection because:

- it may become threatened due to pending degradation or human disturbance, unless protective management strategies are employed;
- it cannot be classified as threatened until its status is more fully understood;
- it occupies such an essential ecological position that its decline might adversely affect associated species; or
- it has not sufficiently recovered from a past decline.

Table 6-1: Protected Species Observed Within the District

Common Name	2009		Habitat
	USFWS	State	
Birds			
Snowy Egret	--	SSC	Marshes, lakeshores, ponds, ditches, and pasture
Little Blue Heron	--	SSC	Marshes, lakeshores, ponds, ditches, and pasture
Florida Sandhill Crane	--	T	Wet prairies, lake margins, pastures; nests in pickerelweed, and maidencane marshes
White Ibis	--	SSC	Wetlands
Limpkin	--	SSC	Slow-moving fresh water rivers, marshes, and lake shores
Florida Scrub Jay	T	T	Oak scrub with open ground
Wood Stork	E	E	Forage in freshwater and brackish marsh; nest in cypress and mangrove swamps
Mammals			
Florida Black Bear	C2	T	Pine flatwoods, cypress swamps, hardwood swamp, sand pine scrub, and mixed hardwoods
Florida Panther	E	E	Rarely observed within the RCID
Sherman's Fox Squirrel	--	SSC	Uplands
Florida Mouse	C2	SSC	Sand pine scrub, coastal scrub, scrubby flatwoods, and sandhills
Reptiles and Amphibians			
Alligator	T	SSC	Lakes, ponds, sloughs, and marshes
Eastern Indigo Snake	T	T	Varied habitat from wet prairie to xeric pineland and scrub
(Eastern) Short-Tailed Snake	C2	T	Turkey oak-longleaf pine, occasionally upland hammock and sand pine scrub
Florida Gopher Frog	C2	SSC	Sandhills, pine flatwoods, and sand pine scrub. Needs ephemeral marshes for breeding.
Gopher Tortoise	C2	T	Sandhills, sand pine scrub, live oak hammocks, palmetto prairie, pine flatwoods, abandoned grove and pasture.
Florida Pine Snake	C2	SSC	Uplands
Florida Sand Skink	T	T	Rosemary scrub, sand pine scrub, oak scrub, and scrubby flatwoods

Legend: E = Endangered *SSC = Species of Special Concern*
T = Threatened *C2 = Candidate for listing, with some vulnerability but for which not enough data exists to support listing.*

The mix of wetlands, uplands, pine flatwood, and xeric oak habitats creates high quality habitat in much of the RCID. Most of the wetland communities, and some of the forested uplands, have been designated for non-development uses to ensure that they continue to function as viable wildlife habitat. The Florida scrub jay and gopher tortoise are among the species of greatest concern in these areas. Wood storks, sandhill cranes, egrets, herons, and limpkins are also sighted with some frequency in the wetland areas, as are alligators. Black bears are very rare, and the Florida panther is periodically sited in the vicinity.

A family of threatened scrub jays was relocated from the District to the Archibold Biological Station in the early 1990s. Although no other scrub jays have been observed within the District, suitable habitat is present. The District continues to require pre-development wildlife surveys and will require consultation with the Florida Game and Freshwater Fish Commission regarding appropriate mitigation measures in the event that proposed development may impact a scrub jay nest.

Several areas within District boundaries provide suitable habitat for the gopher tortoise. The District is permitted to remove gopher tortoises under a 1991 take permit issued by the Florida Game and Fresh Water Fish Commission with mitigation for habitat loss being provided through the Walker Ranch habitat restoration program described above. However, as a matter of course, the District continues to relocate gopher tortoises to suitable habitat when they are encountered on new development sites. The tortoise is typically found in pine flatwoods, xeric oak, and abandoned pasture land.

There are also 29 threatened plant species within the RCID. Although plants are not protected from development impacts by state or federal law, the District and its major landowners routinely conduct botanical surveys and encourage site plans and construction practices which minimize harmful impacts.

Note: Hazardous waste is covered in the Solid Waste Subelement of this Plan.

ENERGY CONSERVATION AND REDUCTION OF GREENHOUSE GASES

THE BUILD ENVIRONMENT

In 2008 the District's primary landowner published a Corporate Responsibility Report wherein the company committed to minimizing its overall impact on the environment while encouraging and activating environmentally responsible behavior on the part of its employees, guests, and business associates. Specifically the company aims to conserve water, energy and ecosystems; to reduce greenhouse gas emissions; to minimize waste; and to inspire public consciousness in support of environmental sustainability. Key focus areas include:

Water and Energy Conservation

Invest in new technologies and systems that enhance water and energy conservation. Include water and energy management as an integral part of planning for future projects to reduce their consumption.

Greenhouse Gas (GHG) Emissions Reductions

Reduce GHG emissions by identifying the sources and implementing solutions, including source elimination, efficiency improvement, minimizing transportation and other fuels, and increasing the use of clean fuels.

Environmental Goals

The company has set a long-term goal of zero net direct greenhouse gas emissions with a medium term target of achieving 50 percent of its long term goal by the year 2012. Globally the company reported a 3.5 percent reduction in GHG emissions from 2008 to 2009 from 563,134 metric tons CO2eq to 543,226. In order to achieve the 2012 target, the company has invested in carbon offset projects to protect forests in the Amazon, Democratic Republic of Congo and the United States, as well as other emissions reduction projects in China and the United States.

A second long-term goal is to reduce indirect greenhouse gases from electricity consumption. This goal focuses on taking steps to be more efficient in electricity consumption, the procurement of clean electricity from utilities and investments in clean electricity projects. The company's medium term targets are to reduce electricity consumption by 10 percent by 2013 compared to its 2006 baseline for existing assets and to develop a plan to aggressively pursue renewable sources of electricity to reduce emissions from electricity consumption. Globally the company reported a 2.6 percent decrease from 2006 to 2009. The company is implementing thermostat set point in theme parks and resorts and CFL and LED lighting conversions companywide.

The company participates in the Florida Department of Environmental Protection's *Florida Green Lodging Program (GLP)*, a voluntary initiative that recognizes hotels that adopt cost-saving, environmental practices in six areas of sustainable operations: communication and education (customers employees, and guests); waste reduction, reuse, and recycling; water conservation, energy efficiency, indoor air quality, and transportation At this time all but one of the company-owned resorts have been certified. Five of the nine non-company-owned resorts have also been certified. To remain certified, lodgings are required to annually submit environmental performance data for water, waste, and energy and to implement at least two new environmental practices from any of the six areas of sustainable operations.

THE NATURAL ENVIRONMENT

The Carbon Cycle

Carbon is the fourth most abundant element in the Universe and is the essential element for life on Earth. Carbon cycles in and out of the land and ocean through the processes of photosynthesis and respiration. Nearly all forms of life depend on the production of glucose and other sugars (fuels) from solar energy and carbon dioxide (photosynthesis) and the metabolism (respiration) of those fuels to facilitates growth and reproduction. During photosynthesis, green plants absorb solar energy and remove carbon dioxide from the atmosphere, and during respiration and decomposition, carbon dioxide is returned to the atmosphere. Photosynthesis and respiration also play an important role in the long-term geological cycling of carbon.

The presence of land vegetation enhances the weathering of soil, leading to the long-term, albeit slow, uptake of carbon dioxide from the atmosphere. Over periods of years to decades, significant amounts of carbon can be stored or released on land. When forests are cleared, the carbon contained in the living matter and soil is released, causing atmospheric carbon dioxide concentrations to increase. When land is abandoned and forests are allowed to re-grow, carbon is stored in the accumulating living biomass and soils causing atmospheric carbon dioxide concentrations to decrease.

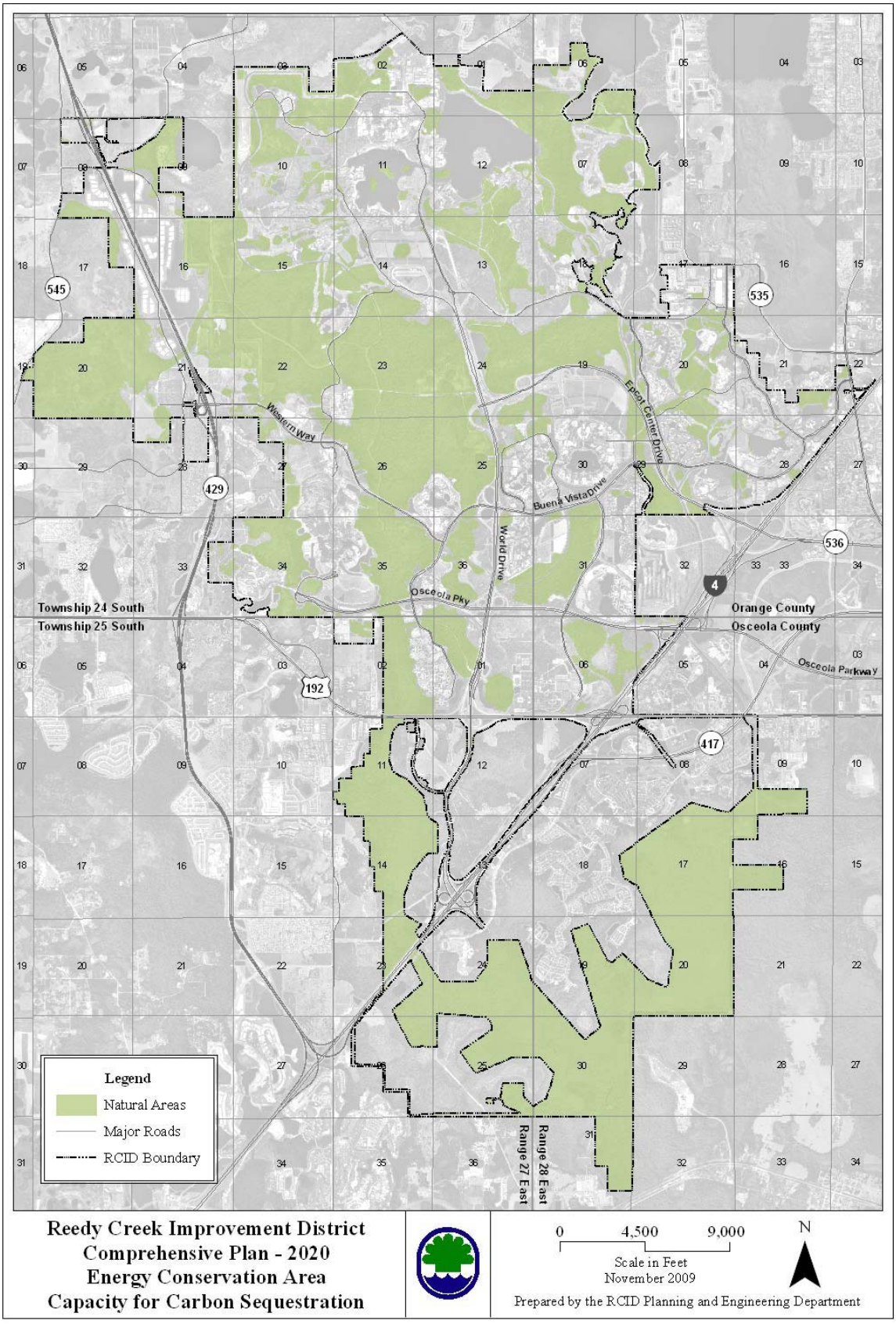
When we clear land for development and agriculture and burn fossil fuels for transportation, heating, cooling, cooking, and electricity, we are moving carbon more rapidly into the atmosphere than is being removed

naturally through the sedimentation of carbon, thus causing atmospheric carbon dioxide concentrations to increase.

Carbon Sequestration

Carbon Sequestration is a biochemical process by which atmospheric carbon is absorbed by living organisms, including trees, soil micro-organisms, and crops, and involving the storage of carbon in soils, with the potential to reduce atmospheric carbon dioxide levels. Vegetation and soils are widely recognized as carbon storage sinks. The global biosphere absorbs roughly two billion tons of carbon annually, an amount equal to roughly one third of all global carbon emissions from human activity. Significant amounts of this carbon remain stored in the roots of certain plants and in the soil. Conservation of terrestrial ecosystems offers significant opportunity for carbon sequestration. There are 11,349 acres of undisturbed and restored natural ecosystems, representing 46 percent of the Districts total land area, with some capacity for carbon sequestration (as yet not quantified). These areas are depicted on Figure 6-8 and represent conservation uplands and wetlands, and resource management/recreation wetlands. Also depicted on the map are 1,304 acres of agricultural land and 1,321 acres of undeveloped uplands classified as mixed use and slated for future development, but currently providing capacity for carbon sequestration.

Figure 6-8: Energy Conservation Areas – Capacity for Carbon Sequestration



Landscape Features

Landscaped areas within theme parks, resorts commercial districts, and rights-of-way, golf courses, sports fields, and planted areas along canals and water bodies are not shown on Figure 6-8 although they play a role in energy conservation and the reduction of greenhouse gases. The RCID drainage model is based on the following percentages of pervious surfaces for developed land:

Land Use	Percent Pervious
Entertainment	10%
Hotel/Resort	38%
Hotel/Resort – Campground	70%
Hotel/Resort – Golf Courses	100%
Mixed Use	20%
Commercial	20%
Public Facilities	20%
Support Facilities	20%

By applying the above percentages and assuming all pervious surfaces are landscaped, there are approximately 3,300 acres of landscaped areas within the District.

Trees, shrubs and even turf contribute both directly and indirectly to energy conservation and the reduction of greenhouse gases. Urban green spaces reduce energy consumption by countering the warming of paved surfaces. Urban forests reduce urban air temperatures significantly by shading heat sinks such as buildings and concrete and reducing the amount of fossil fuels used for cooling. Lawns are 30 degrees cooler than asphalt and 14 degrees cooler than bare soil in the heat of summer. These benefits reduce energy use and encourage people to walk rather than drive their vehicles when presented with tree-lined walkable distances. Urban green spaces also act as carbon sinks by removing carbon dioxide from the atmosphere and storing it as cellulose in their trunks, branches, leaves, and roots. Unfortunately direct and indirect energy use required for landscape maintenance can off-set some of these benefits.

Reedy Creek Improvement District
Comprehensive Plan

RECREATION AND OPEN SPACE ELEMENT

Part A:
Policies

INTRODUCTION

The Recreation and Open Space Element describes provisions for recreational facilities and open space within the District. Although recreation and open space elements traditionally focus on permanent residents, this element examines primarily private recreation~~,~~ and addresses the needs of employees and visitors, as well as residents. The element consists of a "Policies" component, which includes goals, objectives, and policies, and a "Supporting Data and Analysis" component, which provides narrative text, tables, and maps describing existing and future conditions.

GOALS, OBJECTIVES, AND POLICIES

GOAL

It is the goal of the Reedy Creek Improvement District to promote the creation of state-of-the-art vacation and recreation facilities; to maintain and expand access to these facilities; and to retain the visual, environmental, and psychological benefits provided by open space in the District.

Objective 1

To promote the creation of high quality recreational facilities by the private sector that utilize technological advances, new concepts, and innovative designs.

Policy 1.1: The RCID shall continue to maintain building codes and Land Development Regulations that permit the practical application of new and advanced concepts, designs, and ideas in recreation and entertainment.

Policy 1.2: The Land Development Regulations shall permit and encourage the integration of recreational areas, facilities, and activities in existing and new commercial uses, such as shopping centers or office development.

Policy 1.3: The Land Development Regulations shall permit and encourage a broad range of recreational experiences in the District, including expanded opportunities for cultural programs, such as the performing and visual arts.

Objective 2

To increase public access to recreational amenities in the District.

Policy 2.1: The District's Land Development Regulations and Building Codes shall continue to ensure barrier-free design within new recreational developments and shall include provisions for handicapped parking and handicapped-accessible transport.

Policy 2.2: The RCID shall continue to encourage the private sector in its community outreach efforts and shall support programs that encourage access to recreational attractions by economically disadvantaged children and their families.

Objective 3

To ensure that parks and recreational facilities are adequately and efficiently provided, and that public and private resources are coordinated to meet demands for recreational facilities.

Policy 3.1: Representatives of the RCID and its major landowners shall meet as needed but not less than once a year to review pending plans for private recreational facilities and to determine the need for public improvements to serve these facilities.

Policy 3.2: The RCID shall support efforts by the major landowners to construct pedestrian and bicycle trails linking the major private recreational facilities within the District.

Policy 3.3: The RCID shall encourage the District's major landowners to maintain adequate facilities for employee recreation.

Policy 3.4: A level of service standard of two acres of neighborhood parkland per 1,000 permanent residents shall be used by the RCID.

Policy 3.5: A level of service standard of 20 acres of community parkland per 10,000 permanent residents shall be used by the RCID.

Policy 3.6: Parkland provisions, standards, requirements, and procedures shall be set forth in the Land Development Regulations.

Objective 4

To retain at least 30 percent of the area outside the Wildlife Management Conservation Area (WMCA) as open space.

Policy 4.1: For the purposes of calculating the 30 percent requirement in Objective 4, open space shall be defined as:

(1) all areas that are designated for Resource Management/Recreation (RM/R) uses on the Future Land Use Map;

(2) all areas outside the Wildlife Management Conservation Area (WMCA) that are designated for Conservation uses on the Future Land Use Map;

(3) lakes and waterways;

(4) golf course fairways; and

(5) all areas of the District owned Fletcher property, located in Sections 19 and 20, Township 24 South, Range 27 East and acquired by the District for public uses in the mid-1990s.

The 30 percent calculation excludes large landscaped areas, including rapid infiltration basins, sports fields, turf areas, and buffers within hotels and attraction development parcels.

(Amended by Ordinance/Resolution No. 510 adopted 07/28/2010 and Ordinance Nos. 128 and 125 adopted 07/14/2010)

Policy 4.2: In the event the District annexes or de-annexes land, the total open space requirement shall be adjusted upward or downward to ensure that a 30 percent set-aside is maintained.

Policy 4.3: The District shall maintain an Open Space Map (Figure 7-1) indicating the location of those areas counted towards the 30 percent open space requirement.

Policy 4.4: In addition to the areas shown on the Open Space Map, the District shall encourage the retention of open space areas within future development sites. The location of such areas shall be based on the vegetation, habitat potential, hydrological, and aesthetic characteristics of the site.

Policy 4.5: Development parcels shall not include any part of the Conservation Area ~~n~~or any public rights-of-way.

Policy 4.6: Subsequent versions of the Future Land Use Map shall continue to designate wetlands and other sensitive natural areas in a manner that ensures their retention as open space. Wetlands permitted for impacts under the District's Long Term Permit are designated for urban uses, since mitigation for these impacts has already been approved and provided.

Policy 4.7: In the event that permanent residential areas are created in the District, a method of maintaining common open space areas shall be required as a condition of development approval.

Objective 5

To incorporate provisions for visitor access to lakes and creeks within any development that encompasses or adjoins waters identified as belonging to the State of Florida.

Policy 5.1: New development adjacent to Bay Lake, Seven Seas Lagoon, Little Lake Bryan, Reedy Lake, Lake Mable, South Lake, Village Lake, Lake Buena Vista, and Reedy Creek shall make provisions for visitor access to shoreline areas. Such provision shall be comparable to those that have been made at existing development on the shores of these water bodies.

Reedy Creek Improvement District
Comprehensive Plan

RECREATION AND OPEN SPACE ELEMENT

Part B:
Supporting Data and Analysis

PURPOSE

The Recreation and Open Space Element assesses the need for recreational facilities and open space within the Reedy Creek Improvement District. The element reflects the unique role of the District as a public service provider to one principal landowner, as well as that landowner's unique role as a private service provider in the international market for resort and entertainment facilities. The Walt Disney World Resort was established to provide a unique recreational experience and to create a dynamic environment for offering innovative concepts in leisure activities. These concepts involve a broad spectrum of recreational uses that serve cultural, educational, entertainment, relaxation, and physical fitness functions.

Recreational facilities in the District far exceed what is demanded locally. All recreational facilities are privately owned and operated, but all are open to the general public and meet a "public" need for a specific type of recreation. The District contains four major theme parks (Magic Kingdom, EPCOT Center, Disney's Hollywood Studios, and Disney's Animal Kingdom) and three minor theme parks (Typhoon Lagoon, Blizzard Beach, and Disney's Wide World of Sports), several entertainment-oriented shopping areas, 27 hotel/resort and interval ownership properties, 81 holes of golf, an auto speedway, and a campground. It is the largest agglomeration of recreational uses in the United States and is the most frequently visited destination resort complex in the world. The entire community is oriented around recreation and leisure. Even the most commonplace activities—shopping, eating, and traveling—are recreational experiences in the District.

In this plan element the public sector's role is to assist the private sector in broadening the range of recreational experiences available and to ensure that access to these facilities is made available to a wide range of socioeconomic groups. The public sector's role is also to require that adequate recreational opportunities are available for employees in the District and to establish standards for parks and open space for residential areas, should such areas be constructed in the future.

This element also emphasizes the preservation of open space within the District for aesthetic, environmental, and recreational purposes. The recreational value of the RCID is enhanced by the large tracts of open space that surround the existing developed areas. The extensive open space within the District creates a sense of escape from the urban boundary and adds to the physical beauty of the developed areas. In addition to its psychological value, the District's open space is home to numerous plant and animal species and is a significant ecological resource. One purpose of this element is to protect and enhance the regional open space resources that are partially contained within District boundaries.

The Supporting Data and Analysis begins with a description of existing recreation opportunities and open space areas and continues with an assessment of recreation and open space needs in the District

EXISTING RECREATION AND OPEN SPACE

EXISTING RECREATION FACILITIES

The major and minor theme parks focus on entertainment and cultural activities, although all of the parks offer opportunities for physical or resource-related recreation. The theme parks include thrill rides, children's rides,

educational and artistic exhibits, movies, shows, concerts, parades, fireworks, and a diverse array of spectator and participatory athletic events.

The hotel/resort and interval ownership properties (resorts) within the Walt Disney World Resort contain numerous athletic and recreational facilities, including many facilities that one might find in a neighborhood or community park. All of the resorts include swimming pools and children's play areas, most include tennis courts, and many include jogging and hiking trails and exercise rooms. The resorts also offer organized recreational programs and provide opportunities for passive recreational activities such as fishing and boating. Activities such as lake swimming, horseback-riding, water skiing, and golfing are also available. Downtown Disney offers recreational opportunities as well as shopping, dining, and entertainment.

The recreation facilities in the District may be broadly grouped into five categories as described below and shown on Figure 7-2.

Private Facilities with Admission Charge – Most of these facilities are "gated attractions" and are accessible to the general public with payment of an admission fee. These facilities and their associated parking areas and roadways cover 2,299 acres in the District or about 9.3 percent of its total area. A variety of admission fee structures are available.

The gated attractions include major theme parks and minor theme parks. The major theme parks are:

- *Magic Kingdom* – a theme park offering rides, shops, restaurants, and live entertainment based on favorite Disney themes
- *EPCOT* – a showcase for technology and international culture
- *Disney's Hollywood Studios* – a theme park oriented to the movie and television industries
- *Disney's Animal Kingdom* – a theme park featuring live animal displays and adventure rides with animal themes.

The minor theme parks are:

- *Typhoon Lagoon* – a water-oriented park featuring water slides and water thrill rides with a tropical island theme.
- *Blizzard Beach* – a water-oriented theme park featuring water slides and water thrill rides with an alpine theme.
- *Disney's Wide World of Sports* – a sports complex comprised of a major league baseball stadium; four major league baseball fields and one practice infield; seven grass playing areas and four convertible fields that can be configured for baseball, softball, and traditional sports fields for football, soccer and lacrosse; six fields that can be configured to accommodate softball and youth baseball, a tennis complex with ten clay tennis courts and a 1,000 seat stadium, a track and field complex, the 70,000 square-feet Milk House indoor arena, and the recently added Jostens Center, a multi-sport 44,800 square-feet facility designed to house basketball courts, volleyball courts, and inline hockey rinks.

Special recreational and cultural events are also held throughout the year at the gated attractions, including festivals and special events and a number or specials races and athletic challenges tied to theme park festivals, special events, and attractions.

In addition to the gated attractions, private recreational facilities also include the *WDW Speedway (Richard Petty Driving Experience),* two miniature golf courses, four 18-hole championship golf courses, and one 9-hole golf course.

Private Facilities with No Admission Charge – The District contains several commercial developments that serve dual retail and recreational functions. Each of these areas is accessible to the general public without payment of an admission fee.

Downtown Disney is oriented towards visitors to the theme parks and features specialty shops, entertainment, themed restaurants, theaters, and live entertainment. In addition to indoor amenities, Downtown Disney includes park-like features such as waterfront promenades, boat rental, outdoor performances, eating areas, fountains, sculpture, and gardens. Special recreational, art, and musical events are held throughout the year at Downtown Disney; most of these events are offered free of charge.

The Boardwalk Hotel also includes retail, dining, and entertainment at the promenade level.

Resort Accommodations with Restricted Admission – Each resort property offers privately owned recreational facilities for its guests. Paid guests staying in the resorts generally have unlimited access to the recreational facilities available at their resorts. Typical resort facilities include tennis courts, jogging trails, swimming pools, and evening music and dance clubs. Many hotels also provide children's playgrounds, arcade rooms, exhibits, and movies. The campground offers tennis, biking, hiking, swimming, horseback riding, boating, water skiing, and live shows.

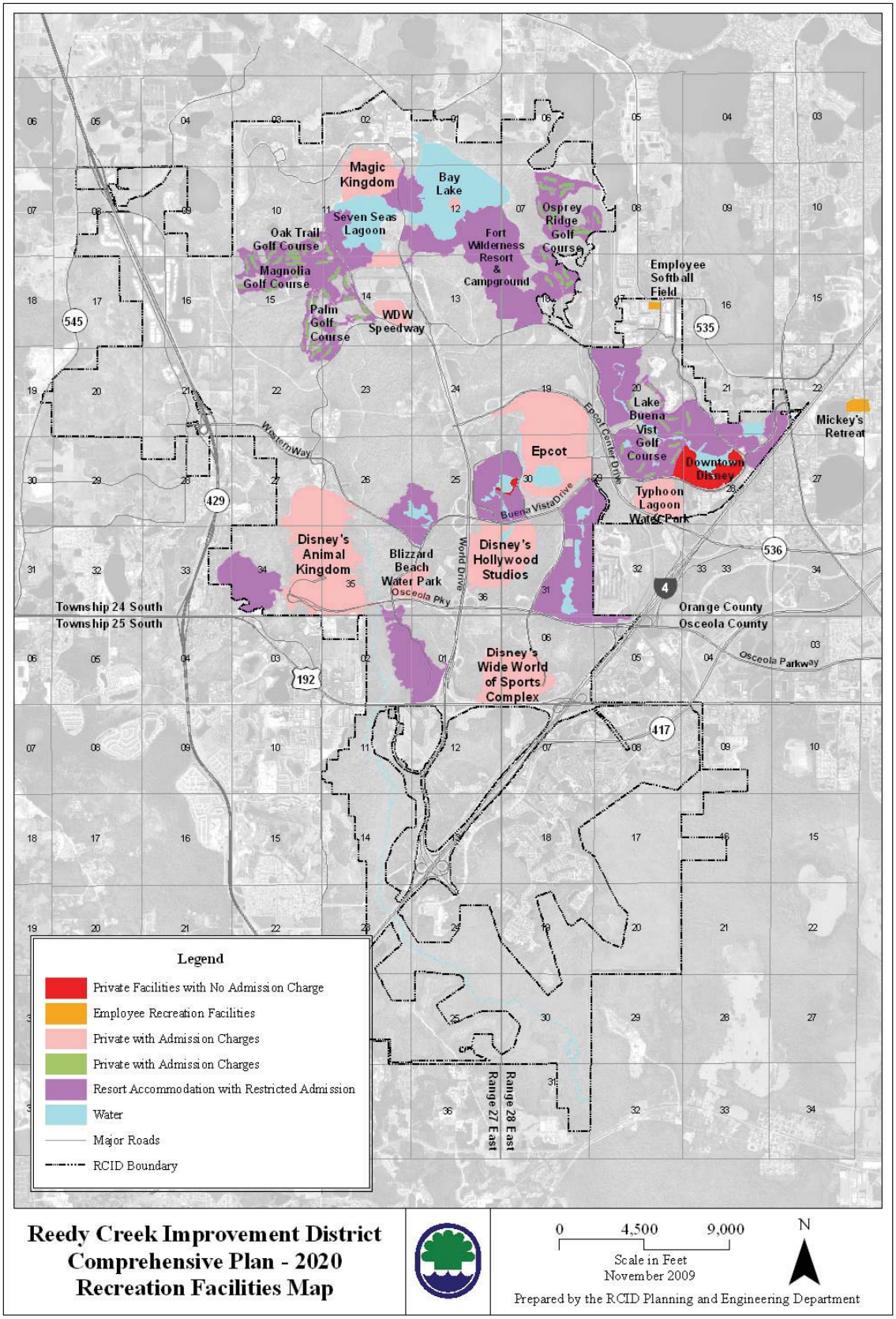
Employee Recreation Facilities – The Walt Disney World Company provides recreational facilities for the exclusive use of its employees and their families and guests at no admission cost. Most of these facilities are located adjacent to Little Lake Bryan, in an area that was de-annexed from the District in the early 1990s. The Little Lake Bryan complex is equivalent to a large community park, and includes a clubhouse, two swimming pools, a screened pool room, volleyball courts, picnic and barbecue pavilions, basketball courts, three tennis courts, a soccer field, four softball fields (including two lighted fields), a sandy beach and lake (with boating and swimming), and a fitness trail. In addition to these facilities, Walt Disney World Company also provides athletic fields within the District.

The District's principal employer offers a wellness program and encourages employee participation in athletic activities, arts and crafts programs, and organized outings. Some of the hotels set aside time for employees to use their facilities. Walt Disney World organizes many recreational events for employees. These events include softball, volleyball, and basketball competitions; aerobic classes; canoe races; etc. These events are all offered at very reasonable prices—usually a very modest sign-up fee.

Employees are also permitted to enter the theme parks without an admission charge and have limited access to the athletic fields and facilities at Disney’s Wide World of Sports complex.

Public Facilities – Currently, there are no publicly owned recreation facilities in the District. There is no need for public parks to serve the District’s very small permanent population. Residents of the District's 17 dwelling units reside in a very low-density wooded setting and have access to open space around their homes. These residents also have access to the theme parks and employee facilities. Providing parks to serve the local population would duplicate private sector facilities already available to the residents of the District.

Figure 7-2: Recreational Facilities



Recreation Needs of Special Groups

The District's principal employer provides recreational opportunities for many groups of people. Millions of individuals and hundreds of groups, representing a diverse range of interests, cultures, and socioeconomic groups, visit the District each year. Special programs are available for learning disabled and physically challenged individuals. All activities are accessible to persons with disabilities.

Access to Beaches and Shores

Lakes within the developed portions of the District are used for recreational activities, including swimming, boating, fishing, and water-skiing. Shoreline access consists of waterfront trails, beaches, or promenades, and is provided within all lakefront hotel and commercial properties.

EXISTING OPEN SPACE AREAS

Existing open space areas in the RCID are tabulated in Table 7-1 and are shown on the Existing Land Use Map in the Future Land Use Element.

Table 7-1: Existing Land Uses within the District – 2009

Land Use	Acres	Percent
Developed Uses	**9,395**	**38.0**
Residential	14	0.1
Commercial	241	1.0
Support Facilities	618	2.5
Entertainment	2,305	9.3
Public Facilities including Roads	3,080	12.4
Hotel/Resort	3,137	12.7
Undeveloped Uses	**2,626**	**10.6**
Agriculture	1,304	5.3
Undeveloped	1,321	5.3
Open Space Uses	**12,721**	**51.4**
Conservation (Including WMCA)	7,939	32.1
Water	1,373	5.5
Resource Management/Recreation	3,410	13.8
TOTAL	**24,742**	**100.0**

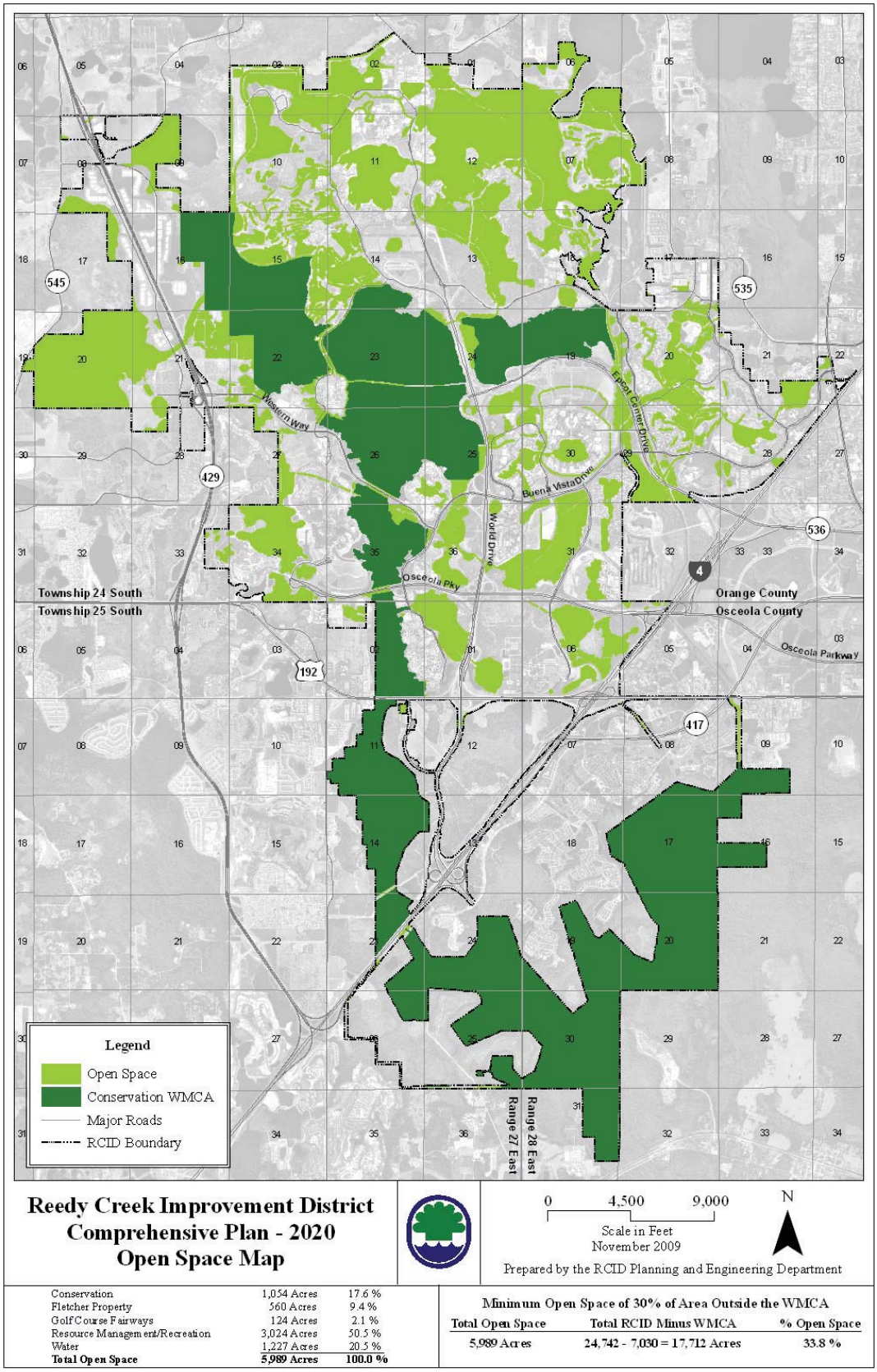
Currently 62 percent of the land area within the District is undeveloped or classified as open space. The undeveloped uses—agriculture and undeveloped lands—are classified as Mixed Use on the Future Land Use Map and consist of uplands, citrus groves, pastures, timber, and nurseries. Open space land uses include Conservation (wetlands and uplands with conservation easements), Resource Management/Recreation (jurisdictional wetlands and other environmentally sensitive lands), and Water (lakes, ponds, and canals larger

than ten acres) and comprise 51.4 percent of the land area within the District. The District requires that 30 percent of the land area within the District, outside the Wildlife Management Conservation Area (WMCA), remain as open space. This requirement is not applied to individual developments, but is applied property-wide. This effectively preserves wetlands not covered by conservation easements. Landscaped areas within the theme parks, resorts and rights-of-way, golf courses (except for fairways), sports fields, retention ponds and water bodies under 10 acres, and the District's rapid infiltration basins are not included in the open space calculation, although they definitely add to the verdant quality of the District. Table 7-2 provides the make-up of the District's open space calculation.

Table 7-2: Open Space

Land Use	Acres	Percent
Conservation	1,054	17.6
Golf Course Fairways	124	2.1
Fletcher Property	560	9.4
Resource Management/Recreation	3,024	50.5
Water	1,227	20.5
TOTAL	**5,989**	**100.0**

Figure 7-1: Open Space Map



Conservation	1,054 Acres	17.6 %
Fletcher Property	560 Acres	9.4 %
Golf Course Fairways	124 Acres	2.1 %
Resource Management/Recreation	3,024 Acres	50.5 %
Water	1,227 Acres	20.5 %
Total Open Space	**5,989 Acres**	**100.0 %**

Minimum Open Space of 30% of Area Outside the WMCA

Total Open Space	Total RCID Minus WMCA	% Open Space
5,989 Acres	24,742 - 7,030 = 17,712 Acres	33.8 %

ANALYSIS

EXISTING NEED FOR RECREATIONAL FACILITIES

The permanent residents of the District have more than adequate recreational facilities available for their use. As stated previously, residents have unlimited use of all theme parks and employee recreational facilities. There is no need for neighborhood, community, or regional parks to serve the local population.

The current supply of private recreational facilities appears sufficient to meet public demands by local, national, and international users.

FUTURE NEED FOR RECREATIONAL FACILITIES

As a public agency, the District ensures: that sufficient recreational opportunities are provided for residents and employees, that private recreational facilities are safely designed, and that open space is conserved for natural resource management. The District will continue to pursue these goals in the future. Projected recreation and open space needs through 2020 are discussed below.

Public Facilities

Population projections for the District indicate that no increase in the permanent population is anticipated between 2010 and 2020. Consequently, there is no anticipated need for additional public recreational facilities to serve this population. A later section of this element addresses the standards to be applied if historic trends change and residential development occurs within the District.

Private Facilities

Private recreational facilities will be added and existing facilities will be enhanced by the primary landowners in response to market demand. The District's responsibility is to ensure that land and infrastructure can be made available to facilitate construction of these facilities and that the facilities are sited and designed in a manner that protects public health and safety. Approximately 2,729 acres of land have been designated for Mixed Use development, a category that permits the construction of additional resorts and attractions. New recreational development is also likely to occur on infill sites within already developed theme parks and resort areas.

In addition to the recreational opportunities offered in Mixed Use areas, the areas classified as Resource Management/Recreation on the Future Land Use Map could support resource-related activities that involve minimal disturbance of the natural landscape. Additional nature trails, fishing areas, wetland boardwalks, and nature observation areas may be created within areas designated for open space uses.

Access to Private Recreational Facilities

The District will continue to assist the major landowners in maximizing access to private recreational facilities. Access improvements will involve: (1) improvements to the traffic circulation system that facilitate movement to existing and planned attractions; (2) maintenance of barrier-free (handicapped-accessible) design within the

theme parks, attractions and resorts; and (3) promotion of programs that enable economically disadvantaged children and their families to visit the facilities.

The Transportation Element identifies the capital improvements and programs that will be required to maintain ingress and egress to existing and new recreation facilities. The District's Epcot Building Code contains provisions for barrier-free design, so that all visitors are physically able to enter all recreation facilities. The major landowners sponsor a number of programs that enable economically disadvantaged youngsters to visit the theme parks.

Access to Beaches and Shores

The lakes in the District are regarded as an important aesthetic and recreation resource. The District will continue to promote shoreline access within new developments along its major lakes. New resorts on the lakes will incorporate beaches, trails, and boat slips where appropriate. Access to Reedy Creek is limited in most locations because of the surrounding lands undisturbed and environmentally sensitive nature.

Physical Adequacy of Private Recreational Facilities

The physical adequacy of the private recreational facilities is ensured through the District's Epcot Building Code. The District monitors water quality at all swimming beaches, swimming pools, and water supply systems in cooperation with the Orange County Health Department. The District's standards for fire protection are among the most stringent in the state. Design and landscaping standards are maintained by both the public and private sector and ensure maintenance of a high-quality visual environment within the District.

Assessment of Employee Recreational Needs

The District does not presently have standards or requirements for employee recreation areas. The private sector provides about 70 acres of recreational facilities for the exclusive use of employees (and their guests and families) off-site at Little Lake Bryan and another 10 acres on-site at the Administration Area. Employees are also provided with free and/or reduced fee access to the attractions. Some of the major employment centers within the District have on-site recreational facilities specifically for employees. Although there are no industry standards for employee recreation areas, existing provisions District-wide are believed to be sufficient to meet employee needs. Employees have access to a much wider array of recreational amenities and opportunities than residents of a conventional city or town.

Standards for Future Development Areas

Residential uses are permitted in the Mixed Use areas shown on the Future Land Use Map although no residential units are provided for in the Future Land Use Element Table 2-1which establishes development maximums for the 2020 planning horizon. While there are presently no plans to construct permanent residences in the District, this element sets forth acreage standards for parks in the event such neighborhoods are built.

A level of service standard of two acres of neighborhood parkland per 1,000 permanent residents has been established. Neighborhood parks should be at least two acres in size, and should have a service area radius of one-quarter to one-half mile. If a proposed residential area has fewer than 1,000 residents, three options should be considered: (1) creation of a pocket park less than two acres in size and with fewer facilities than a conventional neighborhood park; (2) payment of in-lieu fees to the District for the eventual purchase of

parkland after its total population reaches 1,000 residents; or (3) provision of privately operated recreational facilities that are free to residents - such as a swimming pool or clubhouse.

A level of service standard of one community park for every 10,000 permanent residents of the District also has been established. Community parks should be 20 to 40 acres in size and should include playing fields, natural areas, picnic areas, water features, and facilities for active recreation (such as tennis courts). Community parks may incorporate sensitive environmental areas (such as wetlands) provided minimal disturbance or alteration of these areas occurs. The need for a community park can be eliminated if all residents are provided with free access to private recreational facilities - including new facilities that may be built within the residential areas, or existing facilities open to guests or employees at Walt Disney World Resort.

Preservation of Open Space

Initially, the District ensured the provision of open space within new development areas by requiring portions of large development sites to be set aside as open space. The policy was ineffective in practice as it did not consider the unique character of each development site or the specific land use being developed. In the early 1990s, the District adopted an open space map which designated areas to be retained as open space. A minimum of 30 percent of land area outside of the WMCA is to be retained as Open Space. For the purposes of the map, open space was defined to include Resource Management/Recreation areas, golf course fairways, the District owned Fletcher property, and Water. The definition is being amended to include all Conservation areas outside the WMCA. Over the years, a greater percentage of District wetlands once classified as Resource Management/Recreation became covered by conservation easements and now have a land use designation of Conservation. The amended definition results in 5,988 acres or 33.8 percent being designated as Open Space. The definition excludes the WMCA (wetland and uplands preserved in perpetuity) of which 7,030 acres is located within the District. In actuality the amount of open space outside the Conservation Area will exceed the 30 percent requirement. The District's drainage model is based on specific percentages of impervious surface for each land use classification—for example 90 percent for Entertainment, 80 percent for Mixed Use, 62 percent for Resorts, and 30 percent for Campgrounds. Based on these percentages, 47.6 percent of the land area outside the WMCA and 62.5 percent of the total land area within the District will remain uncovered by pavement or buildings.

Reedy Creek Improvement District
Comprehensive Plan

INTERGOVERNMENTAL COORDINATION ELEMENT

Part A: Policies

INTRODUCTION

The Local Government Comprehensive Planning and Land Development Regulation Act of 1985 (Chapter 163, Section 3161 *et seq.*, Florida Statutes, as amended), requires that all local government comprehensive plans include an element that addresses coordination among units of government. Intergovernmental coordination is needed to minimize duplication and incompatible activities and to promote cooperation and efficiency at the local, regional, state, and federal levels.

This element fulfills that requirement and addresses coordination between the District, the cities of Bay Lake and Lake Buena Vista, surrounding cities and counties, special districts, and regional and state agencies. It is divided into two major sections. The "Policies" component contains goals, objectives, and policies. The "Supporting Data and Analysis" component describes existing interlocal agreements and contains an analysis of future intergovernmental coordination needs.

GOALS, OBJECTIVES, AND POLICIES

GOAL

It is the goal of the Reedy Creek Improvement District to promote intergovernmental coordination with the two cities within its boundaries; the two counties in which it is located; other local governments in the immediate vicinity; and regional, state and federal governmental entities for the mutual benefit of all involved parties.

Objective 1

To continue to improve the coordination of planning and the provision of housing and public services, to implement existing agreements and, within one year after adoption of this Plan, to propose a multi-purpose joint planning agreement to Orange County and use best efforts to enter into this agreement.

Policy 1.1: The RCID shall continue to fulfill its obligations under all joint planning and other interlocal agreements with Orange County. This includes all agreements in effect at the time this Plan is adopted and such agreements that may be executed subsequent to that time.

Policy 1.2: Within a year of adoption of this Plan, the District shall propose a joint planning agreement to Orange County and use best efforts to enter into this agreement. This agreement shall be consistent with the requirements of Chapter 163.3171(3), FL Statutes. Specific provisions will include:

(1) The parties will each provide the other with notice of proposed land use changes, rezonings, and plats, and with copies of specific building permits if so requested;

(2) Orange County will not issue any certificate of occupancy for any project that would discharge surface water into the geographic area of the District without the RCID agreeing to the discharge;

(3) Within any area subject to joint planning, neither party will approve any development inconsistent with a plan developed by both parties;

(4) The parties will establish a process to meet, as needed, to coordinate level of service standards for infrastructure, particularly for roads and water quality;

(5) The parties will cooperate on reviewing and approving development within the Reedy Creek and Bonnet Creek watersheds that may have a negative impact on water quality or flood control within the District;

(6) The parties will enter into separate interlocal agreements regarding the provision of water and wastewater services for areas to be annexed to or deannexed from the District;

(7) The parties will coordinate on protecting flora and fauna as specific issues arise;

(8) The parties will cooperate in achieving the goals, objectives, and policies of the Housing Element in this Plan; and

(9) Other coordinative relationship issues that may be applicable.

Policy 1.3: The RCID shall continue to annually renew the existing solid waste disposal agreement with Orange County.

Policy 1.4: The RCID shall not extend water, sanitary sewer or other services which it provides within the District to land outside its boundaries and within Orange County unless provided for by an interlocal agreement that is consistent with the comprehensive plan of Orange County.

Policy 1.5: The RCID shall not deannex any of its land to, or annex land from, Orange County unless provided for by an interlocal agreement that ensures that services can be efficiently provided and values effectively protected.

Objective 2

To continue to improve the coordination of planning and the provision of housing and public services, to implement existing agreements and, within one year after adoption of this Plan, to propose a multi-purpose joint planning agreement to Osceola County and use best efforts to enter into this agreement.

Policy 2.1: The RCID shall continue to fulfill its obligations under all joint planning and other interlocal agreements with Osceola County. This includes all agreements in effect at the time this Plan is adopted and such agreements that may be executed subsequent to that time.

Policy 2.2: Within a year of adoption of this Plan, the District shall propose a joint planning agreement to Osceola County and use best efforts to enter into this agreement. This agreement shall be consistent with the requirements of Chapter 163.3171(3), FL Statutes. Specific provisions will include:

(1) The parties will each provide the other with notice of proposed land use changes, rezonings, and plat approvals, and with copies of specific building permits if so requested;

(2) Osceola County will not issue any certificate of occupancy for any project that would discharge surface water into the geographic area of the District without the RCID agreeing to the discharge;

(3) Within any area subject to joint planning, neither party will approve any development inconsistent with a plan developed by both parties;

(4) The parties will establish a process to meet, as needed, to coordinate level of service standards for infrastructure, particularly for roads and water quality;

(5) The parties will cooperate on reviewing and approving development within the Reedy Creek and Bonnet Creek watersheds that may have a negative impact on water quality or flood control within the District;

(6) The parties will enter into separate interlocal agreements regarding the provision of water and wastewater services for areas to be annexed to or deannexed from the District;

(7) The parties will coordinate on protecting flora and fauna as specific issues arise;

(8) The parties will cooperate in achieving the goals, objectives, and policies of the Housing Element in this Plan; and

(9) Other coordinative relationship issues that may be applicable.

Policy 2.3: The RCID shall not extend water, sanitary sewer or other services which it provides within the District to land outside its boundaries and within Osceola County unless provided for by an interlocal agreement that is consistent with the comprehensive plan of Osceola County.

Policy 2.4: The RCID shall not deannex any of its land to, or annex land from, Osceola County unless provided for by an interlocal agreement that ensures that services can be efficiently provided and environmental values effectively protected.

Objective 3

To maintain and continue to enhance existing intergovernmental coordination processes and mechanisms among the District, the City of Bay Lake and the City of Lake Buena Vista.

Policy 3.1: The RCID, City of Bay Lake, and City of Lake Buena Vista shall separately adopt and update this unified Comprehensive Plan and the Land Development Regulations for the areas within the three jurisdictions.

Objective 4

To continue to coordinate with other local jurisdictions and agencies on matters of mutual interest.

Policy 4.1: The RCID shall continue to follow and, as necessary, update its procedures for dealing with local jurisdictions other than Orange and Osceola counties on matters that may affect it.

Policy 4.2: The RCID shall, upon written request, distribute copies of its Comprehensive Plan to local governments and other local entities.

Policy 4.3: The RCID shall send a notice of any proposed Comprehensive Plan or amendment thereto to school boards that have or may have students whose parents are employed within the District, with information on how to obtain a copy of the Plan or amendment and with whom to talk regarding any comments.

Policy 4.4: The RCID shall coordinate its water supply facilities planning with the South Florida Water Management District's Kissimmee Basin Water Supply Plan adopted on December 14, 1006, and all subsequent updates. (Added by Ordinance/Resolution No. 482 adopted 09/24/2008 and Ordinance Nos. 121 and 122 adopted 09/22/2008)

Objective 5

To continue to actively participate in the planning and coordination of all modes of transportation with the Florida Department of Transportation, the Metropolitan Planning Organization, and the adjacent local governments.

Policy 5.1: The RCID shall continue to fulfill its obligations under all joint planning and other interlocal agreements regarding transportation planning and coordination. This includes all agreements in effect at the time this Plan is adopted and such agreements that may be executed subsequent to that time.

Policy 5.2: The RCID shall participate in regional and subregional planning efforts, including those sponsored by the Metropolitan Planning Organization, that may affect the District.

Policy 5.3: The RCID shall cooperate with the Florida Department of Transportation and the federal government in transportation planning that may affect the District, especially on I-4.

Objective 6

To continue to participate in regional and subregional coordination and cooperation with the ECFRPC and other governmental and nongovernmental entities to solve problems that cannot effectively be addressed by a single jurisdiction.

Policy 6.1: The RCID shall continue to cooperate with the East Central Florida Regional Planning Council and other local governments by providing all nonproprietary planning-related information on matters of interlocal concern.

Policy 6.2: The RCID shall participate in any newly established regional or subregional planning committees that deal with potential impacts on the District or with impacts that activities within the District may have on other jurisdictions.

Policy 6.3: The RCID shall continue formal liaison with state and federal agencies that have permitting authority within the District, and inform them of development projects that are within their review authority.

Policy 6.4: The RCID shall encourage the Florida Department of Environmental Protection to establish air quality monitoring stations in the District in the event that regional air quality conditions deteriorate.

Policy 6.5: The RCID shall cooperate with the appropriate regional agencies in improving regional air quality.

Policy 6.6: The RCID shall continue to encourage the participation of professional staff in local and regional organizations that serve to promote intergovernmental coordination.

Policy 6.7: The RCID shall continue to appoint representatives to all public boards and committees to which it is invited.

Policy 6.8: The RCID shall transmit copies of its Comprehensive Plan or plan amendments to all planning and regulatory agencies and governing bodies as required by F.S 163.3184(3). (Amended by Ordinance/Resolution No. 510 adopted 07/28/2010 and Ordinance Nos. 128 and 125 adopted 07/14/2010)

Policy 6.9: In the event the RCID is unable to resolve disputes with other local governments or establish interlocal agreements as called for in this element, the RCID shall ask the East Central Florida Regional Planning Council for assistance through its informal mediation process, provided that this assistance shall not include binding arbitration or decision making imposed upon the RCID.

Policy 6.10: If the RCID is not able to consummate any of the joint planning agreements specified in policies 1.2 and 2.2, RCID will continue to enter into interlocal agreements on a case by case basis. (Amended by Ordinance/Resolution No. 510 adopted 07/28/2010 and Ordinance Nos. 128 and 125 adopted 07/14/2010)

Intergovernmental Coordination Policies in Other Elements

Future Land Use Element:

Policy 5.1 Public road improvements and other applicable measures shall be undertaken so that the District transportation system can accommodate the traffic volumes indicated in Table 2-3 without reductions in the adopted levels of service. These improvements and service levels shall be specified in the Transportation Element and Capital Improvements Element.

Policy 6.1 The District shall maintain an affordable housing program, as defined in the Housing Element of this Comprehensive Plan, which ensures that new housing opportunities are provided in proximity to the District's employment centers.

Policy 6.3 The RCID shall not deannex any developed property unless the proposed use is consistent with the receiving government's comprehensive plan, and there is an interlocal agreement in place that addresses public facility and service issues.

Policy 6.4 The extension of District water and sewer lines to property outside District boundaries shall only be permitted if the area to be served is designated for urban land uses on the adjacent jurisdiction's Future Land Use Map, and if development of the area would be consistent with the goals, objectives, and policies of the jurisdiction's Comprehensive Plan.

Policy 6.5 All annexations shall comply fully with the provisions of Chapter 171, F.S. In the event that annexation is proposed, an annexation report shall be submitted demonstrating that the District can meet the traffic, water, sewer, solid waste, and stormwater management demand generated by the most intensive uses that could be permitted in the area to be annexed.

Transportation Element:

Policy 4.1 To reduce the impacts of guest vehicle trips on roadways outside the District, provision of directional signage shall be coordinated with area local governments, the Orlando/Orange County Expressway Authority, and the Florida Department of Transportation.

Policy 4.2 The RCID shall coordinate with FDOT, Osceola County, Orange County, and other appropriate government entities to pursue recommendations contained in the I-4 PD&E, the Orange County and Osceola County Comprehensive Plans, the Metropolitan Orlando Urban Area Transportation Plan, and any future planning studies which address transportation facilities and conditions within or around its boundaries.

Policy 4.3: The RCID shall actively participate in OUATS, and other studies to coordinate with all appropriate local, regional, state, and federal agencies regarding the location, classification, planning, and construction of needed roads in the Metropolitan area.

Policy 4.4: The RCID shall continue to conduct an annual traffic monitoring program for the public roadways within the RCID, as well as the following adjacent roadways: I-4, US 192, SR 535, CR 535, SR 536, Apopka-Vineland Road, Reams Road and SR 429. Appropriate capacities, daily traffic volumes, and peak-hour traffic volumes shall be determined through this on-site and off-site monitoring program.

Policy 4.6: The RCID shall continue to coordinate with the Central Florida Regional Transit Authority (d.b.a. LYNX), Orange County, and Osceola County on the subject of increasing the level of bus service for visitors and employees.

Policy 4.7: The District shall continue its participation in Metroplan Orlando by continuing its voting membership on the MPO Technical Committee.

Policy 4.8: The RCID shall coordinate with FDOT, Osceola County, Orange County, and other appropriate government entities or regional transit authorities to facilitate high speed rail, commuter rail, and bus rapid transit services.

Housing Element:

Policy 1.1 The District shall ensure that the permanent residential areas in the cities of Bay Lake and Lake Buena Vista are maintained in excellent condition. The District will promptly respond to any problems associated with structural deficiencies or visual blight in these areas.

Policy 4.4: Projects outside RCID boundaries which do not meet the affordability criteria described above may receive water or sewer capacity from the RCID through interlocal agreements. In such instances, the developers of such projects shall be required to pass along savings resulting from the District's provision of these services in the form of more affordable sale and rental prices or other public or community amenities.

Policy 4.5: The District shall work with public transit providers to increase the availability of public transportation between the District and affordable housing projects or areas. As appropriate, the District shall also work with the major landowners and private transportation companies to consider the feasibility of private transit services (including shuttle buses, vans, etc.) between affordable housing and District employment centers.

Policy 4.6: The RCID will consider modifications to its stormwater permit fees (for example, allowing such fees to be paid in interest-free installments over five years) as a means of reducing front-end developer costs for affordable housing projects in the Reedy Creek drainage basin.

Policy 5.5 The following additional activities may be employed by the RCID and primary employer to achieve the objective of providing additional affordable housing units, provided that the activity or combination of activities has the benefit of reducing the costs of the unit by at least 5 percent:

(1) Acquisition and donation of land for affordable housing development within the HTZ.

(2) Affordable housing construction outside of the District but within the HTZ, which is provided with assistance by RCID or an employer within RCID.

(3) Direct rental assistance provided by RCID, or employers within RCID, to “low” and “very low” income households.

(4) Participation in community service projects such as Habitat for Humanity.

(5) Technical assistance to nonprofit organizations involved in the provision of affordable housing or housing services within the HTZ.

(6) Downpayment assistance to persons employed within the RCID.

(7) Transportation assistance between affordable housing projects and employment locations within the RCID.

(8) Any other activities identified in this element or developed in the future relating to the provision of affordable housing units within the HTZ.

Policy 6.1: The District shall continue to work with the East Central Florida Regional Planning Council (ECFRPC) in its ongoing efforts to assess affordable housing needs and develop solutions to meeting unmet needs. The District shall actively seek representation on any ECFRPC task force created to address the issue of affordable housing.

Policy 6.2: The District shall work cooperatively with adjacent local governments to facilitate the production of affordable housing and assure that a sufficient supply of land to meet affordable housing needs is retained within the HTZ. Interlocal agreements with Orange County shall be developed as necessary and appropriate to create affordable housing opportunities within the Horizons West area to the north and northeast of District boundaries.

Policy 6.3: Interlocal agreements governing any future deannexation of land from the District into the adjacent counties shall address the issue of affordable housing. The receiving county will be encouraged to explore affordable housing opportunities within the area being deannexed.

Policy 6.4: The District shall support efforts to partner with Orange, Osceola, Lake, and Polk counties, and other jurisdictions as appropriate, to develop performance standards, policies, and developer incentives to encourage/ facilitate development of innovative communities and affordable housing. The District shall also support public/private partnerships between developers and local governments, including the District’s major landowners and nearby local governments, to produce affordable housing.

Policy 6.5: To the extent feasible and appropriate, future affordable housing activities of the District and its primary employer shall be integrated with State and County programs, such as the SAIL (State Apartment Incentive Loan) program, SHIP (State Housing Initiative Partnership) program, and HOME (Home Investment Partnership) program. Although the District is ineligible to receive such funds directly, they may assist nonprofit developers who receive these funds, thereby further improving the affordability of housing.

Infrastructure Element: Potable Water Subelement

Policy 4.6: The RCID shall not extend water services to land outside its boundaries unless provided for by interlocal agreements. Water extensions beyond District boundaries may be considered appropriate for health and safety reasons, or if the area is to be served will be developed with affordable housing or other uses providing local and regional benefits and consistent with that jurisdiction's comprehensive plan.

Infrastructure Element: Sanitary Sewer Subelement

Policy 8.6: The RCID shall continue to not extend sanitary sewer services to land outside its boundaries unless provided for by interlocal agreements. Wastewater extensions beyond District boundaries may be considered appropriate for health and safety reasons, or if the area is to be served will be developed with affordable housing or other uses providing local and regional benefits and consistent with that jurisdiction's comprehensive plan.

Infrastructure Element: Solid Waste Subelement

Policy 9.4: The RCID shall continue to transport its commercial and domestic solid wastes to permitted landfill facilities. The transfer of wastes to permitted facilities shall be governed by agreements.

Policy 12.6: As needed but not less than once every two years, the District shall assess its waste disposal agreements and ensure that adequate long-range capacity exists at the landfills where its solid waste is disposed.

Infrastructure Element: Stormwater Management Subelement

Policy 14.9: The RCID shall require outside drainage system sources to pay a connection fee prior to executing a drainage agreement in accordance with Circuit Court Order #66-1061 in Osceola County or Circuit Order #66-1061 in Orange County, as is appropriate.

Policy 14.10: The District shall require a copy of the SFWMD staff report for any drainage entering the District prior to executing a drainage agreement in accordance with Circuit Court Order #66-1061, Section IV in Osceola County or Circuit Order #66-1061, Section V in Orange County, as is appropriate. In those cases where the SFWMD analysis is not required,

the District shall require a report similar to that prepared by the SFWMD prior to executing a drainage agreement.

Conservation Element:

Policy 1.1: The District will encourage research and analysis of groundwater recharge conditions in the region. The findings of such research, including the ongoing USGS groundwater study, will be considered in future land use and development decisions. Until more current groundwater maps are available, the District will rely on the most current maps available from the SFWMD or otherwise deemed acceptable by the SFWMD to identify recharge areas.

Policy 1.5: The RCID shall continue to cooperate and coordinate with the SFWMD and other agencies and jurisdictions in their efforts to protect groundwater resources in Central Florida.

Policy 6.1: The RCID shall encourage the Florida Department of Environmental Protection to establish air quality monitoring stations in the District in the event that regional air quality conditions deteriorate.

Recreation and Open Space Element:

There are no intergovernmental coordination policies in this element.

Capital Improvements Element:

Policy 5.1: The District shall continue to work cooperatively with the FDOT and with adjacent local governments in the planning of improvements to I-4, US 192, CR/SR 535, Osceola Parkway, and the Western Beltway.

Policy 5.2: In the event any vacant area is deannexed from the District, an interlocal agreement with the receiving county shall address the construction of capital improvements and provision of public services to the deannexed area.

Policy 5.3: In annually updating its CIP and CIE, the RCID shall evaluate the FDOT five-year plan, the SFWMD facility improvement plan, and any other state or regional plans that may potentially impact the District. Projects proposed by these agencies should be evaluated based on:

(1) their proximity to the District;

(2) the degree to which they facilitate or hinder implementation of this Plan;

(3) the degree to which they commit financial resources that would otherwise be committed to improvements within the District; and

(4) the degree to which they induce growth in areas outside the District but in close enough proximity to impact RCID facilities.

Special Notes

No policies are included dealing with designated areas of critical state concern because no such areas are located within the boundaries of the RCID.

Reedy Creek Improvement District
Comprehensive Plan

INTERGOVERNMENTAL COORDINATION ELEMENT

Part B:
Supporting Data and Analysis

PURPOSE

This Element sets forth the intergovernmental coordination plans for the Reedy Creek Improvement District. The RCID was established in 1967 by the Florida Legislature (Chapter 67-764) in order to provide a full range of urban-related services within its jurisdiction. The RCID is governed by an elected Board of Supervisors and its staff is managed by a District Administrator.

The northern portion of the District is located in Orange County, which includes Orlando (the county seat) and is the most populated county in the Orange-Seminole-Osceola Metropolitan Statistical Area. The southern portion of the District is in Osceola County, which has the highest growth rate in the Central Florida area. The county seat of Osceola County is Kissimmee. Figure 1-1 shows the location of the District in relation to the two counties. This Element addresses relationships between the RCID and these two counties.

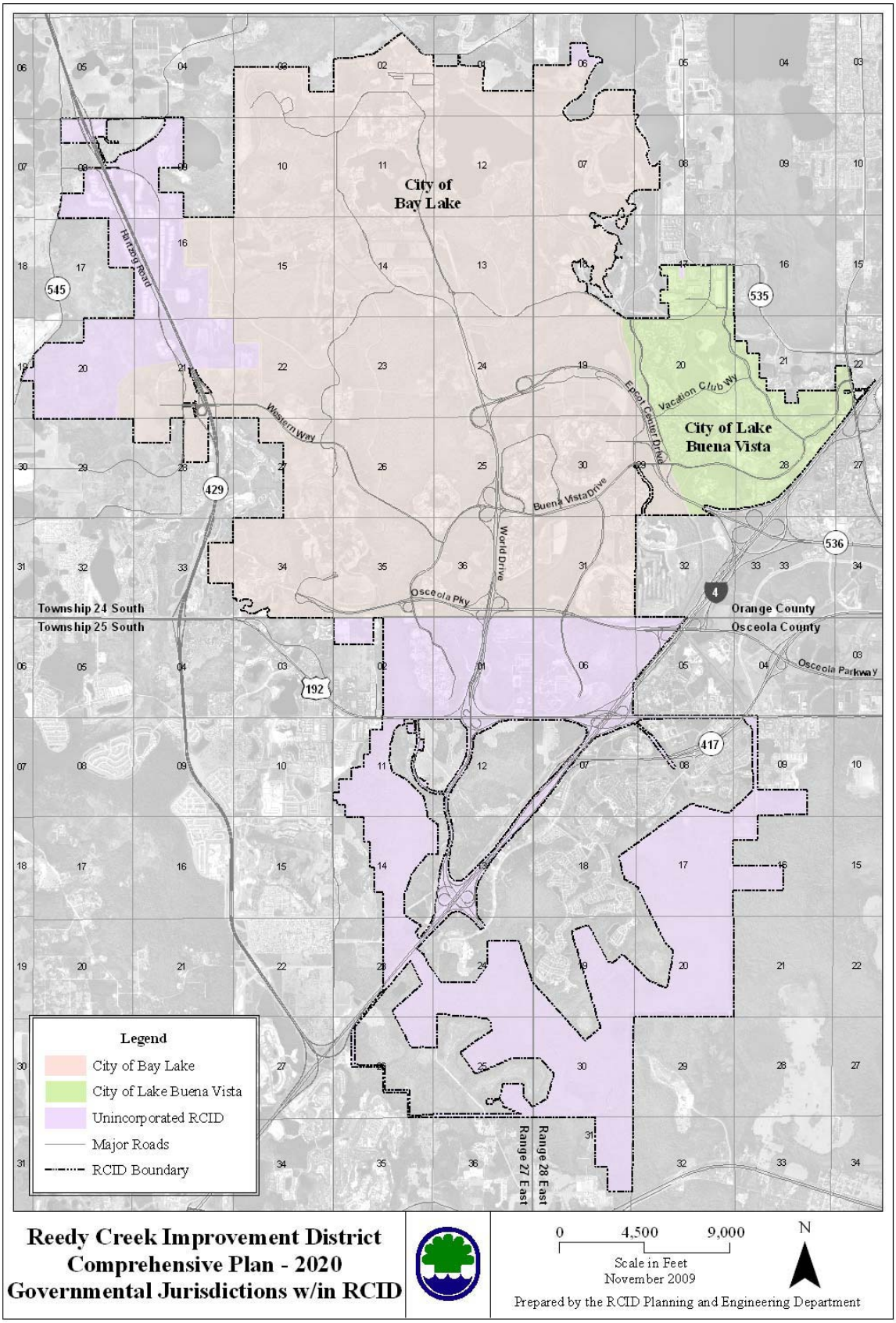
Two cities exist within the boundaries of the RCID (see Figure 8-1). The City of Bay Lake was established in 1967 (Chapter 67-1104) and the City of Lake Buena Vista was established the same year (Chapter 67-1965). (The City of Lake Buena Vista was known originally as the City of Reedy Creek.) Both cities have elected mayors and city councils. The staff of the RCID serves as the staff to both cities.

Legislation establishing the RCID and the two cities provides for joint agreements relating to their common powers, duties, and functions. As an example, this revised Comprehensive Plan was prepared under a joint agreement between the RCID and the two cities; therefore, it serves as the plan for all three entities. This element addresses other intergovernmental relationships between the RCID and the cities of Bay Lake and Lake Buena Vista.

The RCID and the two cities are within the jurisdictional boundaries of the East Central Florida Regional Planning Council; Lake Buena Vista is a member of the council. The RCID coordinates with a number of federal and state agencies in such areas as highway construction and maintenance, water quality management, and fish and game management. This element presents more details of these relationships.

The legislation establishing the RCID specifically authorizes it to enter into cooperative agreements with the state, counties, cities, or other public bodies or agencies. This element discusses a numberl of these agreements.

Figure 8-1: Governmental Jurisdictions



EXISTING COORDINATION

PLANNING

General

This Comprehensive Plan has been prepared by the RCID for itself and the two cities within its jurisdictional boundaries. The planning staff for the District serves as the planning staff for the two cities. The RCID has often coordinated closely with Orange and Osceola counties and occasionally with Lake and Polk counties. The RCID also coordinates with regional and state planning agencies.

The RCID has executed a number of interlocal agreements with the Cities of Bay Lake and Lake Buena Vista, Orange County, Osceola County, the East Central Florida Regional Planning Council, the Florida Department of Community Affairs, and private companies setting forth conditions for annexations and deannexations, development approvals, and development criteria on a case by case basis.

ENVIRONMENTAL QUALITY

General

The RCID works closely with the U.S. Environmental Protection Agency regarding issues of water quality, wetlands protection, and hazardous waste disposal. It also works closely with the Florida Department of Environmental Protection (FDEP), especially on water quality issues. In addition to water quality, the FDEP is involved in water quantity (implemented by the South Florida Water Management District), drinking water, solid waste, air quality, and noise control. The FDEP permitting programs require coordination with the Florida Department of Natural Resources and the U.S. Army Corps of Engineers. The SFWMD issues permits and monitors drainage facilities.

The RCID has executed agreements with the Orange County Soil Conservation District for assistance in preparing a soil and water conservation plan; The Florida Department of Environmental Protection for resource commitment for monitoring and controlling pollution; Orange County and Osceola County for the acceptance of drainage from outside the District; South Florida Water Management District for the removal of and mitigation for specific wetlands and for the operation of all existing drainage facilities; and the Celebration Community Development District for drainage into District stormwater management systems.

WATER, WASTEWATER, AND SOLID WASTE SERVICES

General

The RCID owns a potable water system, a wastewater reclamation plan, a sewage collection system, and a solid waste disposal system. All water comes from wells owned by the District, except for a small area south of Animal Kingdom that is served by the City of Kissimmee. Wastewater is disposed of within the jurisdictional boundaries, except for the above-mentioned area south of Animal Kingdom. Solid waste,

with the exception of construction wastes, is transported to an Okeechobee County landfill. The SFWMD sets annual and daily water allocations for pumping water from the Floridan Aquifer. Water, wastewater, and solid waste services must comply with standards established by the Florida Department of Environmental Protection.

The District has agreements for utility services, solid waste disposal, water resources, wastewater reuse and canal maintenance easements with various governmental and private entities including: Reedy Creek Energy Service, Inc., Orange County, Orange County Utilities, Chambers Waste Systems of Florida, Inc., CWI of Florida, Inc., U.S. Geological Survey, SFWMD, City of Kissimmee, and Walt Disney World Co.

The District has also entered into an agreement with the City of Saint Cloud, Orange County Utilities, and Tohopekaliga Water Authority to work cooperatively on water supply projects and water use permit issues.

OTHER UTILITY SERVICES

General

The RCID owns a natural gas distribution system, an electric generation and distribution system, a chilled water system, and a hot water system. The District has an agreement with Reedy Creek Energy Services, Inc. for the operation of these utility facilities. The District purchases gas and most of its electricity from external sources including Florida Gas Tranmission Company, People's Gas Company, Florda Power Corporation, Tampa Electric Company, Orlando Utilites Commission, and Orlando Cogeneration Limited.

HEALTH AND SAFETY

General

The RCID provides fire protection services within its jurisdictional boundaries. It is a party to several mutual aid agreements for fire protection and emergency rescue. The District also is involved in traffic signal maintenance and elevator inspection and has executed agreements with the Florida Department of Transportation and the Florida Department of Business Regulation, respectively. It cooperates with the Florida Department of Health and Rehabilitative Services in the inspection of restaurant facilities within its jurisdictional boundaries. The City of Bay Lake and the City of Lake Buena Vista have agreements with the Orange County Sheriff's Office for the latter to provide police services.

The RCID has executed agreements to provide firefighting and medical services in times of emergencies with Osceola County, Orange County, City of Kissimmee, City of Orlando, and with Four Corners Fire Protection and Rescue.

TRANSPORTATION

General

The RCID works closely with the Florida Department of Transportation with respect to the state road program. Of particular interest is increasing capacity of roads that serve the District. The two entities exchange information that enables each to do better planning. The RCID has representatives on the Transportation Technical Committee of the Metropolitan Planning Organization. It also coordinates with Orange County, Osceola County, and the City of Kissimmee on traffic planning.

The District's primary employer has an agreement with the Florida Department of Transportation to purchase trips on Interstate -4 pursuant to a Joint Participation Agreement and Donation Agreement for the Construction of Interstate-4 Improvements as a means of satisfying concurrency for trips on I-4.

The District has periodically entered into agreements for cost sharing on specific roadway projects including improvements fo I-4, Osceola Parkway, World Drive, Vineland Road, Southern Connector, and US 192 with the Florida Department of Transportation, Orange County, the Celebration Community Development District, Osceola County, and the Enterprise Community Development District.

HOUSING

General

Housing for permanent residents within the RCID jurisdictional boundaries consists of 17 manufactured homes; therefore, the vast majority of people employed within the boundaries live in the surrounding area. The number of these employees has been increasing and additional increases are anticipated.

SCHOOLS

General

The RCID has a very low permanent school-age population; therefore, the RCID has limited coordination with school boards.

Executed Agreements

None.

RCID OFFICE WITH PRIMARY RESPONSIBILITIES

Because of the small size of the RCID staff and acknowledged importance of interlocal coordination to the District, all such coordination is the responsibility of the District Administrator.

ANALYSIS

LOCAL GOVERNMENTS AND AGENCIES

The Cities of Lake Buena Vista and Bay Lake

The RCID, City of Lake Buena Vista, and City of Bay Lake maintain a close working relationship because they share the same planning staff.

Orange County

The RCID has several interlocal agreements with Orange County, such as the agreements dealing with the deannexations. Other topics covered by interlocal agreements between the two jurisdictions include drainage and water quality, solid waste disposal, fire protection and rescue, and I-4 improvements. An administrative process is in place to comment on land development proposals. The two jurisdictions are coordinating issues on a case-by-case basis. Generally the relations appear to be good, and no significant disputes or unresolved issues are known to exist.

An analysis of the level of projected growth and development shown in the Orange County Comprehensive Plan shows it to be consistent with the growth and development proposed by this Plan and indicates that the existing level of planning coordination is satisfactory.

Osceola County

The RCID has several interlocal agreements with Osceola County, such as the transportation agreements dealing with improvements to I-4 and US-192. Other topics covered by interlocal agreements between the two jurisdictions include drainage and water quality, as well as fire protection and rescue. An administrative process is in place to comment on land development proposals. The two jurisdictions are coordinating issues on a case-by-case basis. Generally the relations appear to be good, and no significant disputes or unresolved issues are known to exist.

An analysis of the level of projected growth and development shown in the Osceola County Comprehensive Plan shows it to be consistent with the growth and development proposed by this Plan and indicates that the existing level of planning coordination is satisfactory.

Other Local Governments and Agencies

The RCID has agreements with other local governments, especially mutual aid agreements on fire protection and rescue. These agreements appear to be working well. The RCID coordinates with the City of Kissimmee on traffic planning. Major issues regarding coordination problems with other local governments and agencies have not been identified.

The City of Bay Lake and City of Lake Buena Vista have an agreement with the Orange County Sheriff's Office to provide public safety services within both cities. The RCID is not a party to this agreement because it does not have legal authority or responsibility to provide police services.

The RCID has limited coordination with local school boards, such as providing bus shelters in the District. Significant coordination is not required because of the low school age population.

REGIONAL AND STATE AGENCIES

Regional Agencies

The RCID maintains a close working relationship with the East Central Florida Regional Planning Council, although it does not hold membership. (The City of Lake Buena Vista, however, is a member.) The RCID has significant contact with the South Florida Water Management District—extensive coordination occurs between these two entities and the working relationship appears to be exceptionally good.

The RCID is extensively involved in regional transportation issues. It has representattion on the Transportation Technical Committee of the Metropolitan Planning Organization.

An analysis of the level of growth and development of this plan and the comprehensive plans for Orange County, Osceola County, City of Orlando, and City of Kissimmee, appears to indicate that existing levels of planning coordination are satisfactory.

State Agencies

The RCID coordinates with the Florida Department of Environmental Protection more frequently than it does with other state agencies. No significant problems appear to exist. The relationship between the RCID and the Department of Community Affairs appears to be satisfactory. The same situation exists with respect to coordination with the Florida Department of Transportation and the Department of Environmental Protection. The RCID's coordination with the Division of Historic Resources appears to be limited, but adequate.

COORDINATION NEEDS BY PLAN ELEMENT

Land Use

Review of Development Near Jurisdictional Boundaries – A comprehensive interlocal agreement is needed with Orange County and Osceola County to formalize existing procedures for dealing with the review of proposed development located proximate to the RCID and county boundaries.

Review of Plans – The RCID should send copies of its Comprehensive Plan, and amendments thereto, to Orange and Osceola Counties. Upon receipt of the comprehensive plans from these jurisdictions, the RCID should review them for compatibility.

Traffic Circulation

Vehicle Reduction Strategies – Ongoing coordination is needed with Orange County, Osceola County, and other applicable agencies to encourage car pooling, as well as the development and use of transit facilities.

Transit Service Improvements – Ongoing coordination is needed with the LYNX public bus system on transit service improvements, including the designation of bus stops and the construction of shelters.

Levels of Service Standards – Ongoing coordination is needed with Orange County, Osceola County, and FDOT in the coordination of level of service standards for roads. In addition, the RCID should update, as needed, during its monitoring and evaluation process, level of service standards for state and federal roadways within the District.

Capacity of Off-site Roadway Improvements – Ongoing coordination is needed with Orange County, Osceola County, and FDOT to increase the capacity of off-site roadways.

Signage – Ongoing coordination is needed with the appropriate agencies on directional signage for guest vehicles.

Housing

Housing Assistance Programs – Ongoing coordination is needed with housing assistance programs in other jurisdictions, primarily Orange, Osceola, Polk, and Lake Counties.

Land Availability – Ongoing coordination is needed with Orange, Osceola, and Lake Counties to address the availability of land for affordable housing.

Unmet Needs – If an unmet need is determined to exist for affordable housing for people employed with the District, coordination is needed with Orange, Osceola, Polk, and Lake Counties to address the problem.

Infrastructure

General – Ongoing coordination is needed with Orange County and Osceola County on level of service standards for infrastructure. Coordination is also needed with the City of Kissimmee on level of service standards for the support area at Disney's Animal Kingdom.

Potable Water – An interlocal agreement will be required before water will be provided to lands deannexed to or annexed from Orange County or Osceola County. Coordination is needed with the SFWMD and FDEP on standards for the selection of new well sites.

Sanitary Sewer – An interlocal agreement will be required before sanitary sewer service will be provided to lands deannexed to or annexed from Orange County or Osceola County. Coordination is needed with potentially impacted sanitary sewer districts in Orange and Osceola counties with respect to wastewater system planning.

Drainage – Ongoing coordination is needed with all local governments and development districts in the Reedy Creek Basin with respect to preparation, monitoring, and amendments to drainage plans.

Groundwater Recharge – Ongoing coordination is needed with the U.S. Geological Survey, Soil Conservation Service, and SFWMD to periodically update the map of "Prime Recharge Areas" within the District.

Conservation

Flora and Fauna Protection – Ongoing coordination is needed with Orange and Osceola counties and other state and federal agencies to coordinate programs to protect flora and fauna.

Air Quality – Ongoing coordination is needed with the FDEP in the event that air quality monitoring stations are established within the District.

Well Protection – Ongoing coordination is needed with the SFWMD and adjacent jurisdictions with respect to modifying, as necessary, cones of influence around the District's water wells.

Recreation and Open Space

No specific intergovernmental coordination problems or needs were identified in this element.

Intergovernmental Coordination

Dispute Resolution – The East Central Florida Regional Planning Council should be asked for assistance in resolving intractable interjurisdictional disputes in the event that such disputes should arise.

Capital Improvements

Road Improvements – Ongoing coordination is needed with FDOT and other local governments in planning and financing any needed improvements serving the District.

Deannexed Areas – Interlocal agreements addressing construction of capital improvements in areas deannexed from the District will be required with the receiving county.

Reedy Creek Improvement District
Comprehensive Plan

CAPITAL IMPROVEMENTS ELEMENT

Part A:
Policies

INTRODUCTION

The Capital Improvements Element addresses the financial feasibility of providing the public facilities necessary to meet the level of service standards for the development as described in the Future Land Use Element of this Plan. The element includes two components: the Policies and the Supporting Data and Analysis. The Policies part includes the goals, objectives, and policies formally adopted by the RCID. The Supporting Data and Analysis part provides background data on current conditions and supporting data for a discussion of issues and future conditions.

GOALS, OBJECTIVES, AND POLICIES

GOAL

It shall be the goal of the Reedy Creek Improvement District to provide adequate public facilities to existing and planned development areas in a manner that is concurrent with the impacts of such development and efficient and consistent with available financial resources.

Objective 1

To develop a schedule for capital improvements that accommodates planned and projected growth, corrects deficiencies in existing public facilities, and replaces obsolete or worn-out facilities.

Policy 1.1: The District shall continue to prepare, as part of the annual budgeting process for the government funds and the Proprietary Funds, an annual construction budget. Facilities shall be itemized as capital outlays in the General Fund and the Capital Projects Fund, or as capital expenditures in the Utility Enterprise Fund. The list of improvements shall be consistent with the facility needs identified in the Traffic Circulation and Infrastructure Elements of this Comprehensive Plan.

Policy 1.2: The District shall continue to maintain a Capital Improvements Committee for the purpose of evaluating, ranking, and recommending in order of priority all projects for inclusion in the Capital Improvements Program (CIP) and the Capital Improvements Element (CIE).

(1) For purposes of the utility-related portion of the budget, the Committee shall be composed of the:

(a) District Administrator;

(b) Director of Finance and Planning;

(c) Director of Administration and Services;

(d) Director of Activities of RCES; and

(e) Manager of Planning and Engineering of RCES.

(2) For purposes of the non-utility related portion of the budget, the Committee shall be composed of the:

(a) District Administrator;

(b) Director of Finance and Planning; and

(c) Director of Administration and Services.

Policy 1.3: The members of the Capital Improvements Committee shall continue to meet annually to discuss the need for capital improvements and the location of these projects based on pending developments during the upcoming five year period.

Policy 1.4: The Administrative departments (including Fire, Water Control and Roadway Maintenance) and the Utility departments (including Potable Water, Wastewater, Reclaimed Water, Solid Waste, Electric, Natural Gas, Hot Water, and Chilled Water Departments) of the RCID shall annually continue to submit a one-year list of capital projects and a five-year projection of capital project needs to the District Comptroller. The five-year projection shall continue to be itemized by year. The list shall identify the location, function, and approximate cost of the project, and the suggested revenue source.

Policy 1.5: The annual submittals in Policy 1.4 shall continue to be used to prepare an annual update of the CIP and CIE. Both the CIP and the CIE shall contain five-year schedules of improvements that prioritize and identify a funding source for each listed improvement.

Policy 1.6: The cost estimates for capital improvements in excess of $25,000 and having a service life of five years or greater may include land, structures, design and permitting fees, and initial furnishings.

Policy 1.7: Capital improvements costing less than $25,000 or having a service life shorter than five years shall be identified in the annual operating budget for each service category.

Policy 1.8: All capital improvements shall continue to be developed through an assessment of existing capacity, existing demand, and projected demand over the next five-year period for each of the services listed above.

Policy 1.9: A program for replacement and renewal of existing deteriorating or obsolete capital facilities shall be included as part of the annual budgeting process. The criteria for selecting projects are given in Policy 1.11. Priority shall be given to those projects that protect public health and safety.

Policy 1.10: The District shall continue each year to deposit five percent of the annual gross revenues (less expenses for fuel and purchased power) of the Utility Enterprise Fund in a Renewal and Replacement Fund for the replacement of worn-out or obsolete public facilities.

Policy 1.11: Existing public facilities shall continue to be inspected on an ongoing basis to determine the need for their renewal or replacement. The renewal and replacement program shall be based on the following criteria:

(1) **Age of the Facility.** Public buildings and improvements and the utility distribution and collection system shall generally be considered due for replacement and renewal when they are between 35 and 50 years old; other property and equipment shall generally be considered due for renewal and replacement when they are between 5 and 30 years old. All facilities shall be replaced or substantially rehabilitated at least once during these time horizons.

(2) **Level of Service.** All public facilities shall be renewed or replaced as needed to maintain the level of service standards adopted in this Plan.

(3) **Safety.** All public facilities shall be renewed or replaced to correct any problems that would jeopardize the safety of employees within, or visitors to, the District.

(4) **Operational Capability.** All public facilities shall be renewed or replaced to correct functional problems that interfere with operational capability.

(5) **Technological Obsolescence.** As funding permits, public facilities and improvements within the District may be replaced before the end of their usable life if facilities that permit more efficient, cost-effective, and environmentally sound service provision are developed.

Policy 1.12: Future capital improvements shall be located and scheduled in accordance with the Future Land Use Map in a manner consistent with the goals, objectives, and policies contained in all other elements of this Plan.

Policy 1.13: The RCID shall include in the annual update of its financially feasible Five-Year Schedule of Capital Improvements projects listed in the Ten-Year Water Supply Facilities Work Plan as necessary to achieve and/or maintain the level of service standards adopted in this Plan.

Policy 1.14 The following financially feasible Capital Improvement Schedules are adopted:

(1) Table 9-8: Five Year Schedule of Capital Improvements for Roads,

(2) Table 9-9: Five Year Schedule of Capital Improvements for Potable and Reuse Water,

(3) Table 9-10: Five Year Schedule of Capital Improvements for Sanitary Sewer,

(4) Table 9-11: Five Year Schedule of Capital Improvements for Solid Waste, and

(5) Table 9-12: Five Year Schedule of Capital Improvements for Stormwater Management.

Objective 2

To coordinate land use planning and capital improvement programming so that no new development is permitted that would result in a reduction in the levels of service adopted in this Comprehensive Plan.

Policy 2.1: Capital improvements shall be prioritized as follows (also see Policy 4.5):

(1) First priority shall be given to projects that correct deficiencies, should they arise in the future; eliminate deficiencies in the levels of service; fulfill a legal

commitment to provide facilities; and maximize the efficient use of existing facilities.

(2) Second priority shall be given to projects for which development orders have already been issued, but have not yet been built.

(3) Third priority shall be given to projects that deliver the adopted levels of service to areas planned for development during the next five years, but for which no development orders have been issued.

(4) Fourth priority shall be given to projects that deliver the adopted levels of service to areas planned for development beyond five years or increase capacity to a standard higher than the adopted level of service.

Policy 2.2: The adequacy of public facilities shall be measured for the required public facility types using the following level of service standards:

(1) The level of service standards for roads shall be as set forth in Policy 1.1 of the Transportation Element. A constrained facility designation shall be provided for CR 535 from Hotel Plaza Boulevard to I-4 and for Hotel Plaza Boulevard, as set forth in Policy 1.2 of the Transportation Element.

(2) The level of service standards for water shall be as set forth in Policy 1.1 of the Potable Water Subelement of the Infrastructure Element.

(3) The level of service standards for sanitary sewer shall be as set forth in Policy 5.1 of the Sanitary Sewer Subelement of the Infrastructure Element:

(4) The level of service standards for solid waste shall be as set forth in Policy 8.1 of the Solid Waste Subelement of the Infrastructure Element.

(5) The level of service standards for drainage shall be as set forth in Policy 13.1 of the Stormwater Management Subelement of the Infrastructure Element.

(6) The level of service standards for parks and recreation shall be as set forth in Policy 3.4 and Policy 3.5 of the Recreation and Open Space Element.

Policy 2.3: Facilities that provide a higher level of service than that specified in this Plan may be permitted if the facility is consistent with the policies of the other plan elements and if the facility does not make financially infeasible the construction of other facilities that are required to meet the adopted level of service.

Policy 2.4: Capital improvements shall not result in a service capacity that exceeds the growth maximums set forth in Table 2-6 of the Future Land Use Element unless the improvements will result in a long-term cost savings or if it would be economically infeasible to limit the expansion to the amount implied by the growth maximums. In such cases, a monitoring program shall be established to ensure that the quantity of the service provided does not exceed the growth cap prior to the 2015 or 2020 horizon years.

(Amended by Ordinance/Resolution No. 510 adopted 07/28/2010 and Ordinance Nos. 128 and 125 adopted 07/14/2010)

Policy 2.5: All permits for development shall be conditioned on the availability of public facilities and services, including adequate potable water, necessary to meet the adopted level of service standards in the RCID. Such facilities and services must be scheduled to be in place no later than the date on which the District anticipates issuing a certificate of occupancy.

Policy 2.6: Where completion of a proposed development would exceed the adopted levels of service, the District shall permit the development to be phased concurrent with the phasing of the public facility improvements needed to mitigate the development's impact.

Policy 2.7: No building permit shall be issued unless the level of service standards for the resulting development will achieve the measurements in Policy 2.2. The District shall determine whether there is or will be sufficient capacity to attain these standards prior to the issuance of development orders.

Policy 2.8: The availability of those capital improvements not subject to the concurrency provisions of this Comprehensive Plan shall not apply to the issuance of development orders.

Policy 2.9: All future amendments to the Comprehensive Plan shall be evaluated for their potential impacts on levels of service, the need for capital improvements, and the fiscal capacity of the District.

Policy 2.10: Pursuant to Florida Statutes Section 163.3187, the schedule of capital improvements may be amended two times during the calendar year, as allowed for in emergencies, and certain small-scale development activities.

Policy 2.11: Pursuant to Florida Statutes Section 163.3177, the schedule of capital improvements also may be adjusted by ordinance rather than through an amendment for corrections, updates, and modifications concerning costs, revenue sources, or public dedication of privately owned facilities that are consistent with this Plan.

Policy 2.12: The District shall maintain and enforce a concurrency management system, meeting all applicable requirements of Rule 9J-5,0055(1) F.A.C., that ensures that issuance of a development order or permit is conditioned upon the availability of public facilities and services necessary to serve new development. The District shall use the level of service standards as set forth in Policy 2.2 in this management system, adopt a financially feasible plan that demonstrates these standards will be met, adopt a system of monitoring and ensuring adherence to these standards and the availability of public facility capacity, implement a system of applying these standards to development applications, and adopt provisions in the Land Development Regulations that ensure the concurrency management system is effectively implemented.

Policy 2.13: The District's concurrency management system shall ensure that capital improvements that maintain the adopted levels of service shall be constructed to serve all developments approved prior to the adoption of this Plan, including projects under construction and projects that are approved but not yet built. Approval of new projects will not be permitted until capital improvements serving previously approved projects are financially committed, or until applications for such projects are withdrawn or expire.

Policy 2.14 The Five Year Schedule of Capital Improvements for Roads, Potable and Reuse Water, Sanitary Sewer, Solid Waste, Drainage, and Parks and Recreation for 2011-2015 are adopted as contained in the Supporting Data and Analysis Section of the CIE.

(Amended by Ordinance/Resolution No. 510 adopted 07/28/2010 and Ordinance Nos. 128 and 125 adopted 07/14/2010)

Objective 3

To ensure that future development pays not less than 50 percent of the cost of the capital improvements, either by directly financing and constructing these improvements, by paying ad valorem taxes or utility revenues sufficient to retire bonds issued by the RCID to construct these improvements, or by using other methods, such as payment of impact fees.

Policy 3.1: Current measures for capital cost recovery shall be continued. Future development shall bear a pro rata share of the costs required to facilitate service provision to that development and maintain the adopted levels of service, as provided in Policies 3.5 and 3.6. Consideration will be given for upfront contributions and the effect of ad valorem tax and other revenue benefits to the District resulting from new development.

Policy 3.2: Rate fees for all services provided by the District shall be reviewed and adjusted as part of the annual operating budget update.

Policy 3.3: Utility rates shall be set so that net revenues are sufficient to pay at least 125 percent of annual debt service and that net revenues plus other funds (such as interest earned) are sufficient to pay at least 100 percent of annual debt service.

Policy 3.4: The District shall continue its current practice of using revenue bonds for the construction of major revenue-producing capital facilities, including water, sewer, and solid waste facilities. Such bonds shall be secured with a pledge of the revenue generated through the sale of the utilities undergoing improvement.

Policy 3.5: The District shall continue its current practice of using general obligation bonds for the construction of major non-revenue producing capital facilities, including road and drainage facilities. Ad valorem taxes shall be used to cover the principal and interest payments associated with the bonds. The District can also use general obligation bonds for other purposes permitted by its enacting legislation.

Policy 3.6: In lieu of using ad valorem taxes, the District shall permit the private sector to use other methods to pay for the capital costs of facilities, including private construction of the facilities (to District standards), dedication of land, payment of impact fees, and voluntary contributions for facility construction.

Policy 3.7: In the event that permanent residential areas are created in the District, a method of maintaining common open space areas shall be required as a condition of development approval.

Policy 3.8: The District shall determine if all utility improvements will pay for themselves within five years. If the determination shows that any will not, the District shall require that the applicant make an appropriate contribution toward the cost of such improvement.

Objective 4

To manage growth in such a way that the public facility needs generated by planned development and previously approved development do not exceed the District's financial ability to fund the listed capital improvements in accordance with the adopted schedule.

Policy 4.1: The District Comptroller shall continue to prepare an annual five-year projection of assessed valuation in the District based on past trends, committed developments, and projected future conditions. The amount available for debt service during each year over the five-year period shall be included in this projection.

Policy 4.2: The schedule of capital improvements shall continue to be based on a realistic, financially feasible program of funding from existing revenue sources.

Policy 4.3: Capital costs shall continue to be funded in a manner that does not place a financial burden on the operating budgets for public services.

Policy 4.4: The District shall continue to disapprove the construction of any capital facility unless it is determined that the means are available to pay for the operating and maintenance costs of the facility.

Policy 4.5: In addition to the priorities listed in Policy 2.1, the annual update of capital improvements shall consider the following project selection criteria (not in priority order):

(1) elimination or avoidance of public health or safety hazards;

(2) provision of service to existing development or elimination of existing deficiencies;

(3) impact on the operating budgets of the General Fund and Utility Enterprise Fund;

(4) locational needs based on growth patterns;

(5) accommodation of new development;

(6) impact on debt capacity or availability of capital outlay funds;

(7) relationship to plans of the Florida Department of Transportation and the South Florida Water Management District;

(8) relationship to the Comprehensive Plan, particularly the Future Land Use Element;

(9) provision of a logical extension of existing services; and

(10) necessity to maximize efficiency of the system or avoid future improvement costs.

Policy 4.6: If the District projects that it will be unable to generate sufficient revenue in any future year to cover its expected capital costs in any future year, it shall remove, via the plan amendment process, facilities from the CIP and CIE according to the following priorities:

(1) first to be removed would be projects providing capacity in excess of the adopted levels of service;

(2) second to be removed would be projects that reduce operating costs but do not add capacity;

(3) third to be removed would be projects not subject to the concurrency provisions of this Plan; and

(4) fourth to be removed would be projects subject to the concurrency provisions of this Plan.

Objective 5

To coordinate the construction of local capital facilities with capital facilities in adjoining jurisdictions.

Policy 5.1: The District shall continue to work cooperatively with the FDOT and with adjacent local governments in the planning of improvements to I-4, US 192, CR/SR 535, Osceola Parkway, and the Western Beltway.

Policy 5.2: In the event any vacant area is deannexed from the District, an interlocal agreement with the receiving county shall address the construction of capital improvements and provision of public services to the deannexed area.

Policy 5.3: In annually updating its CIP and CIE, the RCID shall evaluate the FDOT five-year plan, the SFWMD facility improvement plan, and any other state or regional plans that may potentially impact the District. Projects proposed by these agencies should be evaluated based on:

(1) their proximity to the District;

(2) the degree to which they facilitate or hinder implementation of this Plan;

(3) the degree to which they commit financial resources that would otherwise be committed to improvements within the District; and

(4) the degree to which they induce growth in areas outside the District but in close enough proximity to impact RCID facilities.

Inapplicable Rule 9J-5 Objectives

Policy 9J-5.016(3)(b)2 regarding capital investment in high-hazard coastal areas is not addressed because the District is not in a high-hazard coastal area.

Policy 9J-5.016(4)(a)3 regarding a five year financially feasible public school facilities program is not addressed because the District is exempt from school concurrency per DCA letter dated May 16, 2008.

Reedy Creek Improvement District
Comprehensive Plan

CAPITAL IMPROVEMENTS ELEMENT

Part B:
Supporting Data and Analysis

PURPOSE

The purpose of the Capital Improvements Element is to demonstrate the financial feasibility of the Reedy Creek Improvement District Comprehensive Plan. The element determines the costs of the public facilities identified in the other elements of the plan, analyzes the ability of the District to pay these costs, and prioritizes improvements based on fiscal criteria and the goals, objectives, and policies in the other plan elements. Simply put, the element translates growth into dollars; policies for spending, financing, and generating revenue are included.

Each major category of public facilities in the District will be impacted by future development. To maintain the current levels of service enjoyed by visitors to the District, expansion of these facilities will be required to accommodate growth. A five-year schedule of capital improvements specifying the location, timing, and approximate cost of each project has been developed based on the infrastructure needs identified in each element of the plan. The schedule is evaluated and updated each year as the land use plan, funding sources, and budget conditions change.

The financial analysis in this element is a useful way of assessing the reasonableness of the Comprehensive Plan. While capital improvements are necessary to maintain levels of service, they must be financially realistic. If costs are excessive, the service levels may need to be lowered, the amount of permitted development may need to be changed, or a greater share of improvement costs must be shifted to the private sector. This element seeks to find the best balance among these different factors.

Each year, the District incurs three major types of expenses. The first type, operation and maintenance costs, cover the day-to-day expenses of roads, utilities, and other public services. These costs include personnel, equipment and supply purchases, periodic repairs, and regular maintenance. The second type, debt service costs, cover the principal and interest payments on the outstanding bonds issued by the District to finance past capital improvements. The third type, capital costs (or construction costs), cover the expense of adding new facilities or replacing worn-out facilities. Because the facilities in the District are relatively new and well maintained, most capital costs are incurred as a result of new development.

Capital costs can be further classified into two categories: those that fall under the concurrency provisions of Florida's Growth Management Act, and those that do not. Both types of facilities are included in the annual operating and construction budgets, but only the former type is covered in this element. This category includes roads, water, sanitary sewer, solid waste, drainage, and parks and recreation and schools. Because parks and recreational facilities in the District are privately operated and because the District lacks a significant permanent population, parks and recreation are not included as a concurrency service in this element. The District, the City of Bay Lake, and the City of Lake Buena Vista requested and received an exemption from school concurrency requirements pursuant to a letter from the Department of Community Affairs dated May 16, 2008. The second category includes fire protection, public buildings, electric, natural gas, chilled water, and hot water services. While the annual revenues and expenses for these services are included in the General Fund or Utility Enterprise Fund operating budgets and the capital costs are included in the construction budgets, these costs are considered in this element only to the extent that they impact funds available for the concurrency services. With the exception of fire protection and public administration, the non-concurrency services are paid for through service charges and user fees.

INVENTORY

REVENUE SOURCES AND FUNDING MECHANISMS

Financial Structure

The District's finances are organized on the basis of funds and account groups. Funds are classified as governmental funds or proprietary funds.

Governmental funds include the General Fund, Debt Service Fund, and Capital Projects Fund. The General Fund is the general operating fund of the District. It is used to account for all financial resources except those required to be accounted for in another fund. The Debt Service Fund is used for the accumulation of resources for the payment of general long-term debt principal, interest, and related costs. The Capital Projects Fund is used for acquisition or construction of major capital facilities, excluding those that are financed through the Utility Enterprise Fund. In turn, the Capital Projects Fund includes two Roadway Funds that account for construction costs associated with roadway and drainage projects within the District.

Proprietary funds include only the Utility Enterprise Fund, used to account for the District utilities. These utilities include water, sanitary sewer, solid waste, natural gas, electricity, hot water, and chilled water. The Utility Enterprise Fund is financed and operated in a manner similar to a private business. The intent of the governing body is that the cost (expenses including depreciation) of providing goods or services be recovered (or financed) through user charges. This fund also includes an operating budget and a construction fund, which is used to disburse proceeds from bonds.

Account groups include the General Fixed Asset Account Group, used to maintain control and cost information for all fixed assets used in Governmental Fund operations, and the Long-Term Debt Account Group, used to record long-term obligations backed by the full faith and credit of the District, except for long-term debt of the Utility Enterprise Fund. All roads, bridges, curbs and gutters, streets and sidewalks, drainage systems, and lighting systems are recorded as capital outlays in the Statement of Net Assets. These facilities are not depreciated over time as the District has elected to use the “Modified Approach” as defined by GASB Statement No. 34 for infrastructure reporting. On the other hand, water, sewer, and other utility investments recorded as assets in the Utility Enterprise Fund are depreciated on a straight-line basis according to their projected useful lives (5 to 50 years).

As of the fiscal year ending September 30, 2009 (FY 2009), General Fixed Assets were valued at $258.6 million, while the property, plant, and equipment in the Utility Enterprise Fund were valued at $287.1 million.

Overview of Revenue Sources

District revenue sources for governmental funds (including general, debt service, and capital projects) and the Utility Enterprise Fund for the fiscal year ending September 30, 2009, (FY 2009) are summarized in Table 9-1. During FY 2007, the District collected $75,197,931 in its three governmental funds and $196,596,942 in its Utility Enterprise Fund.

Table 9-1: Revenue Sources (Excluding Bond Proceeds) in the RCID – Fiscal Year 2009

Source	Governmental Funds	Percent	Utility Enterprise Fund (*)	Percent
Ad Valorem Taxes	$71,054,117	94.5%		
Interlocal Agreements	851,220	1.1%		
Building Permits and Fees	827,449	1.1%		
Emergency Services	181,570	0.3%		
Interest Income	1,636,579	2.2%	$531,490	0.3%
Post Office	178,655	0.2%		
Drainage Fees	163,526	0.2%		
Other	304,815	0.4%		
Utility Sales (**)			196,065,452	99.7%
TOTAL	**$75,197,931**	**100.0%**	**$196,596,942**	**100.0%**

Notes:
(*) Utility Enterprise Fund includes non-concurrency service revenues (electricity and natural gas).
(**) *Interdepartmental Utility Sales have been excluded.*

Table 9-2 indicates General and Debt Service Fund revenue sources during FY 2009 and for each of the preceding five years.

Table 9-2: General and Debt Service Fund Revenue Sources (in millions)

Source	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Ad Valorem Taxes (*)	$57.3	$62.6	$63.7	$65.8	$71.1
Interlocal Agreements	5.5	3.6	5.1	2.5	0.8
Building Permits and Fees	1.1	1.0	1.9	1.3	0.8
Drainage Fees	0.1	0.1	0.3	0.2	0.2
Interest Income	0.8	1.7	2.3	2.7	1.6
Post Office	0.2	0.2	0.2	0.2	0.2
Emergency Services	0.1	0.1	0.2	0.2	0.2
Other	0.6	0.4	1.6	0.3	0.3
TOTAL	**$65.7**	**$69.7**	**$75.3**	**$73.2**	**$75.2**

Notes:
(*) Net of prepayment discounts and other deductions

Ad Valorem Taxes

The RCID Board of Supervisors has the power to levy and assess an ad valorem (property) tax on all real and tangible property in the District in order to pay the principal and interest on any general obligation bonds of the District, to provide for sinking funds or other funds associated with the bonds, and to defray the costs of any project or activity undertaken by the District. These taxes are in addition to those paid by the landowners in the District to Orange and Osceola counties.

Property taxes are billed and collected each fiscal year, with the millage established each September. State statutes permit the District to levy property taxes at a rate of up to 30 mills (3 percent of assessed valuation). Ad valorem tax revenue totaled $71,054 million (net of prepayment discounts and other deductions of about four percent) in FY 2009 or 94.5 percent of total general fund revenues. As shown in Table 9-3, the rate assessed by the District during the fiscal year ending September 30, 2009, was 9.8857 per $1,000 of assessed valuation, or just under one percent. The millage was 9.6455 in FY 2008 and will be 10.3427 in FY 2010.

Table 9-3: Assessed Valuation and Millage

	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Assessed Valuation (in thousands)	$5,826,815	$6,068,352	$6,577,694	$7,103,895	$7,484,581	$7,197,453
Debt Service Millage	4.3356	4.6745	3.8331	3.7307	3.4895	3.6247
General Operating Millage	5.9144	6.0755	6.2669	5.9148	6.3962	6.7180
Total Millage	**10.2500**	**10.7500**	**10.1000**	**9.6455**	**9.8857**	**10.3427**
Tax Bill (in thousands) (*)	**$59,725**	**$65.235**	**$66,435**	**$68,521**	**$73,990**	**$74,441**

Note:
(*)Tax bill does not equal ad valorem revenue because of adjustments and exemptions made by the county assessor after the taxes are levied and discounts taken by taxpayers.

Millages levied by the Cities of Bay Lake and Lake Buena Vista are used to cover the administrative costs of the two cities. There are no other special taxing districts in the RCID. However, Orange County and Osceola County collect additional ad valorem taxes on property within the District to fund county services, capital projects, debt service, schools, and libraries. Millages are summarized in Table 9-4.

Table 9-4: Other Ad Valorem Taxes Paid by the Taxpayers in the RCID

	FY 2008 Millage	FY 2009 Millage	FY 2010 Millage	Purpose
City of Bay Lake	1.0693	1.0767	1.1467	Administration
City of Lake Buena Vista	0.9328	1.0545	1.0545	Administration
Orange County				
Commission	4.4347	4.4347	4.4347	County Services/Debts
Schools	7.1210	7.1500	7.6730	Education
SFWMD	0.6240	0.6240	0.6240	Flood Control
Library	0.3748	0.3748	0.3748	Library
Osceola County				
Commission	5.1994	5.3585	6.5407	County Services/Debts
Schools	7.7720	7.5130	7.6630	Education
SFWMD	0.6240	0.6240	0.6240	Flood Control
Library	0.4154	0.3776	0.5266	Library

Interlocal Agreements

Concurrency Management Agreement – Pursuant to a Concurrency Management Agreement between the District and Osceola County, the District issued bonds to fund certain roadway improvements and interchanges in the vicinity of US-192, World Drive, and Interstate 4. Osceola County agreed to participate in the funding by reimbursing the District for a portion of the debt service on the bonds. Osceola's annual payments are calculated based on growth in certain areas of the County affected by the roadway and interchange improvements and are subject to annual appropriations by the County. The District expects to receive approximately $20,800,000 in total paid in various installments over the term of the bond. Osceola County paid the District $819,345 during FY 2009.

Osceola Parkway Agreement – In January 2004, the District entered into an Amended and Restated Bond Guarantee Agreement in connection with the issuance of Ad Valorem Tax Bonds, Series 2004A in the amount of $63,520,000. These bonds were issued, together with proceeds from $110,935,000 in Osceola County Transportation Improvement Refunding Bonds, to refinance Osceola County, Florida Transportation Improvement Bonds issued in July 1992. Osceola County has agreed to repay the debt service of the District's Series 2004A Bonds and any guarantee payments that are required along with accrued interest from excess toll revenues, if any, when they become available. The District recorded $31,875 due from Osceola County as of September 30, 2009. (The funds were received in October 2009.)

Total interlocal agreements revenues in FY 2009 were $851,220 or 1.1 percent of the three governmental funds total revenue.

Building Permits and Fees

The District charges a variety of fees for construction of improvements and installation of temporary structures. These fees are based on the expected costs of providing the services relating to the permit, such as building, electrical, or plumbing inspections. Fees totaled $827,449 in FY 2009, representing 1.1 percent of the total revenue of the three governmental funds.

Drainage Fees

Drainage fees totaled $163,526 or 0.2 percent of the total governmental funds revenues in FY 2008. Drainage Fees are collected for development projects located outside of the District that discharge stormwater into the District's system of canals. Since these fees are unplanned and used only for major repairs and maintenance to the canal system, drainage fees are not included in revenue projections.

Cash Brought Forward and Interest Earned

Cash brought forward consists of all monies not expended during the prior fiscal year. These funds are carried forward to provide funding for capital projects or operating expenses during the current year until tax revenues are collected. During FY 2009, the three governmental funds had a net positive balance of $38,211,727 at year's end. Funds invested by the District earned $1,363,579 (including general fund interest of $593,551, debt service fund interest of $215,164, and capital projects fund interest of $827,864) during FY 2009, representing 2.2 percent of the total revenues for the governmental funds. Interest earnings on bond construction funds are restricted to use for construction of bonded projects.

Money in the Utility Enterprise Fund that is not spent is continuously invested in a way that permits the funds to be redeemed when they are needed. The use of interest earnings on construction funds and the cost-of-issuance fund is restricted to use on projects being financed through these funds.

Post Office

Although insufficient to cover its expenses, the District's postal facility provides a source of revenue to the General Fund. The post office produced revenues of $178,655 in FY 2009, representing 0.2 percent of the total revenue to the three governmental funds.

Emergency Services

The District collects fire service fees for properties receiving fire protection services within its boundaries. Like the postal service, these fees alone are not sufficient to cover the department's expenditures; however, they do provide a source of revenue to the General Fund. Fire service fees produced $181,570 in FY 2009, representing 0.3 percent of the total governmental funds revenues.

Other Fees

In FY 2009 the District received other miscellaneous revenue totaling $304,815 or 0.4 percent of the total governmental funds revenue.

Maintenance Tax

In addition to ad valorem taxes, the Board of Supervisors has the authority to levy a special ad valorem maintenance tax at a rate not to exceed ten mills for the purpose of defraying maintenance, financing, administrative, and operational costs. The District does not currently levy such a tax.

Special Assessments

The District has the authority to levy special assessments on properties that benefit from the construction or reconstruction of assessable improvements. These special assessments are used to retire the bonds issued to finance the improvements. At the present time, no special assessments are being levied in the District.

Utility Sales

The District has the power to set rates and collect fees, rents, tolls, fares, or other charges for the facilities and services it furnishes. The rates must be uniform for users of the same class and may be computed based on the amount of service furnished, the number of persons occupying the premises, or any other factor affecting the use of the facilities. The rates, together with other funding sources, must sufficiently cover all operation and maintenance costs, debt service, and authorized reserve funds. Utility sales were the source of 99.7 percent of the revenue to the Utility Enterprise Fund during FY 2009. Service charges in the fiscal year ending September 30, 2009, were $196,065,452 (excluding interdepartmental sales), with 85 percent Walt Disney World sales and 15 percent other outside sales.

Including interdepartmental sales, the District sold approximately 5,715 million gallons of potable water in FY 2009, with sales revenue of $9,050,000. The wastewater system treated about 3,971 million gallons of effluent, and generated sales revenue of $23,020,000. The disposal of approximately 103,093 tons of solid waste resulted in sales revenue of $10,080,000 The District also sold about 1,732 million gallons of reuse water for a total of $2,520,000.

The District has maintained rates and charges that, together with investment earnings, have produced sufficient revenues to pay for all normal operation and maintenance expenses, interest on outstanding bonds, deposits to the renewal and replacement fund and the emergency repair fund, and needed capital improvements. During the fiscal year ending September 30, 2009, revenues from rates, charges, interest earnings, and connection fees exceeded operation and non-operating costs by $2,868,465.

Connection Fees

The District has the authority to recover the cost of making connections to any District facility or system through connection fees. During the fiscal year ending September 30, 2009, the District collected $90,000 in connection fees.

Utility Tax

The District has the power to impose, levy, and collect a utility tax on each purchase of electricity, metered or bottled gas, water service, telephone service, or telegraph service. At the present time, no utility tax has been levied.

DEBT FINANCING SOURCES

General Obligation Bonds

The District has the authority to levy general obligation bonds for capital improvements so long as the aggregate principal amount of bonds outstanding at any one time does not exceed 50 percent of the assessed valuation of taxable property within the District. The total assessed valuation of taxable property within the District in Orange County was $6,900,927,005 for FY 2009 and $6,612,184,697 for FY 2010; the taxable property in Orange County consists of a substantial percentage of the developed property within the District. In Osceola County the taxable property consists primarily of land set aside for conservation areas, water storage areas, agricultural uses, and a small percentage of developed property; the total assessed valuation of taxable property within the District in Osceola County was $586,037,632 for FY 2009 and $585,284,686 for FY 2010. The District levies ad valorem taxes based on assessed valuations that are certified to the District by the property appraisers of Orange and Osceola Counties. As of September 30, 2009, the outstanding principal on ad valorem bonds was 3.5 percent of the District's assessed valuation. Ad valorem bonds must be approved by an election in accordance with the constitution of the State of Florida and must provide benefits to all landowners.

General obligation bonds are retired through ad valorem tax collections. The millage rate may be raised to cover the cost of debt service (principal and interest) associated with the bonds. The District's policy has been to fund small-scale capital improvements with internally generated revenues and to borrow money only for major road and utility improvements. By state law, the District cannot finance operational costs with bond monies.

In October 1998, the District issued Ad Valorem Tax Bonds, Series 1998B in the total amount of $33,650,000. These bonds were used to refund a portion of the District’s outstanding Ad Valorem Tax Bonds, Series 1991A maturing on or after Jun 1, 2002 and to pay the costs of issuance of the Bonds. At FYE 2009 the outstanding balance was $16,530,000.

In June 2001, the District issued Ad Valorem Tax Bonds, Series 2001A in the amount of $101,025,000. These bonds were used to refund all of the District’s outstanding Ad Valorem Tax Bonds, Series 1991A and 1995A and to pay the costs of issuance of the Bonds. At FYE 2009 the outstanding balance was $56,905,000.

In January 2004, the District issued Ad Valorem Tax Bonds, Series 2004A in the amount of $63,520,000. These bonds were used to refinance the Osceola County Transportation Improvement Bonds Series 1992, together with proceeds from the $110,935,000 Osceola County Transportation Improvement Refunding Bonds (Osceola Parkway Project), Series 2004 and to pay the costs of issuance of the Bonds. At FYE 2009 the outstanding balance was $49,385,000.

In January 2004, the District issued Ad Valorem Tax Bonds, Series 2004B in the amount of $10,230,000. These bonds were used to finance the design, acquisition, construction, and equipping of certain roads within or outside the District for the purpose among others of providing access by District roads to the Western Beltway (SR-429) and to pay the costs of issuance of the Bonds. At FYE 2009 the outstanding balance was $8,270,000.

In June 2005, the District issued Ad Valorem Tax Bonds, Series 2005A in the amount of $18,925,000. These bonds were used to finance road improvements and construct a new fire station and replace an

existing fire station and to pay the costs of issuance of the Bonds. At FYE 2009 the outstanding balance was $18,925,000.

In June 2005, the District issued Ad Valorem Tax Bonds, Series 2005B in the amount of $90,310,000. These bonds were used to advance refund the Series 1995C Bonds maturing after June 1, 2008 and the Series 1998A Bonds maturing after June 1, 2009, and to pay a portion of the costs of issuance of the Bonds. At FYE 2009 the outstanding balance was $78,475,000.

During FY 2009, the District expended $26,526,273 on debt service, including $14,955,000 in principal payments and $11,571,273 in interest payments. General long-term debt outstanding at FYE 2009 was $234,536,374. Outstanding debt service is summarized by year in Table 9-5 below.

The District does not expect to issue any ad valorem tax bonds during FY 2010 – FY 2014.

Table 9-5: Debt Service (Principal and Interest) on General Obligation Bonds Outstanding

FYE 9/30	Series 1998B	Series 2001A	Series 2004A	Series 2004B	Series 2005A	Series 2005B	Total Debt Service
2010	2,843,200	7,400,965	4,697,455	752,181	469,075	9,847,918	26,010,794
2011	2,838,000	7,403,440	4,698,955	749,431	469,075	9,855,080	26,013,981
2012	2,841,925	7,404,478	4,698,155	750,511	469,075	9,847,600	26,011,744
2013	2,839,588	7,378,703	4,699,585	750,211	469,075	9,856,440	25,993,744
2014	2,840,900	7,407,971	4,695,260	753,936	469,075	9,847,390	26,014,532
2015	2,841,750	7,405,985	4,700,000	751,476	469,075	9,852,390	26,020,676
2016	2,838,725	7,402,410	4,695,500	752,976	469,075	9,848,895	26,007,581
2017		7,403,000	4,699,000	752,826	469,075	12,695,645	26,019,546
2518		7,403,250	4,699,750	751,226	469,075	12,690,145	26,013,446
2019		7,402,500	4,697,500	753,266	469,075	7,211,350	20,533,691
2020			4,697,000	749,135	2,469,075		7,915,210
2021			4,697,750	748,725	2,918,150		8,364,625
2022			4,699,250	751,635	2,914,150		8,365,035
2023			4,696,000	752,760	2,915,150		8,363,910
2024			4,697,750	752,400	2,910,650		8,360,800
2025					8,365,650		8,365,650
TOTAL	**$19,884,088**	**$74,012,701**	**$70,468,910**	**$11,272,695**	**$27,183,575**	**$101,552,853**	**$303,374,822**

Revenue Bonds

The District has the power to issue revenue bonds from time to time without limitation on the amount. The bonds may be secured by, or may be payable from, the gross or net pledge of the revenues to be derived from any project, the rates collected from the users of the project, any revenue-producing activity of the District, or any other source or pledged security. Revenue bonds payable from the proceeds of a utility service tax may also be issued. Industrial revenue bonds or private activity bonds may be issued by the District to assist the private sector in the completion of new facilities.

All of the revenue bonds issued in the RCID have been used to finance expansion of the utility system and have been backed by pledged revenues generated by the system.

In August 1997, the District issued $109,950,000 in Utilities Revenue Bonds, Series 1997-1 to refund a portion of the District's outstanding Series 1987-1 and Series 1991-1 Bonds, to finance the costs of certain capital improvements to the utility system of the District, and to pay the costs of issuance of the Bonds. At FYE 2009 the outstanding balance was $1,835,000.

In September 1999, the District issued $27,060,000 in Utilities Revenue Bonds, Series 1999-1 to finance the cost of certain capital improvements to the District's utility system, to fund a portion of the Debt Service Reserve Account, and to pay the costs of issuance of the Bonds. At FYE 2009 the outstanding balance was $1,080,000. Since funds had already been disbursed to the bank to payoff the bond on October 1, no debt service is shown in Table 9-6.

In September 1999, the District issued $61,460,000 in Utilities Revenue Refunding Bonds, Series 1999-2 to refund a portion of the District's outstanding Series 1990-1 Bonds and to pay the costs of issuance of the Bonds. At FYE 2009 the outstanding balance was $3,990,000. Since funds had already been disbursed to the bank to payoff the bond on October 1, no debt service is shown in Table 9-6. (The redemption of the October 1, 2010 through October 1, 2015 Bonds was funded by proceeds from the issuance of the Series 2005-2 Bonds.)

In July 2003, the District issued $69,605,000 in Utilities Revenue Bonds, Series 2003-1 to finance the cost of certain capital improvements to the District's utility system, to purchase the RCES Leased Assets, to fund a portion of the Debt Service Reserve, and to pay the costs of issuance of the Bonds. At FYE 2009 the outstanding balance was $48,040,000. (The redemption of the October 1, 2015 and October 1, 2015 Bonds was funded by proceeds from the issuance of the Series 2005-2 Bonds.)

In January 2004, the District issued $200,720,000 in Utilities Revenue Bonds, Series 2003-2 to refund the District's Series 1994-1 Bonds maturing on or after October 1, 2004 and to pay the costs of issuance of the Bonds. At FYE 2009 the outstanding balance was $188,875,000.

In June 2005, the District issued $26,930,000 in Utilities Revenue Bonds, Series 2005-1 to finance the cost of certain capital improvements to the District's utility system, to fund a portion of the Debt Service Reserve, and to pay the costs of issuance of the Bonds. At FYE 2009 the outstanding balance was $26,930,000.

In June 2005, the District issued $73,045,000 in Utilities Revenue Bonds, Series 2005-2 to refund the outstanding Series 1997-1 Bonds maturing in 2009 ($10,515,000) and 2019 ($9,375,000), Series 1999-1 Bonds maturing 2010 thru 2019, Series 1999-2 Bonds maturing 2010 thru 2015, Series 2003-1 Bonds

maturing 2015 and 2016, and to pay the costs of issuance of the Bonds. At FYE 2009 the outstanding balance was $73,045,000.

The District anticipates financing future improvements to its electrical, water, wastewater, solid waste, chilled water, and hot water systems with utility revenue bonds. During FYE 2009, the District paid $38,765,243 on debt service, including $20,260,000 in principal payments and $18,505,243 in interest payments. Bonds payable totaled $347,614,308 at the end of FY 2009. Table 9-6 indicates the debt service schedule for the outstanding bonds. The District expects to issue bonds for the expansion of the wastewater treatment plant and the biosolids / food waste to energy facility current under consideration, the timing of which will depend on market conditions, demand for the facilities, etc.

Bond Anticipation Notes

The District has the power to issue bond anticipation notes to borrow money for the purposes for which bonds have been authorized. These notes are payable from the proceeds of the bonds when they are issued, or may be retired from revenues, taxes, or assessments.

Table 9-6: Debt Service (Principal and Interest) on Utility Revenue Bonds Outstanding

FYE 9/30	Series 1997-1	Series 2003-1	Series 2003-2	Series 2005-1	Series 2005-2	Total Debt Service
2010	61,500	5,316,173	23,684,100	1,346,500	8,256,988	38,665,260
2011	61,500	5,316,485	23,685,663	1,346,500	8,253,738	38,663,885
2012	61,500	5,316,435	23,688,900	1,346,500	8,252,738	38,666,073
2013	61,500	5,319,800	23,686,713	1,346,500	8,468,238	38,882,750
2014	61,500	5,317,850	23,682,263	1,346,500	8,468,738	38,876,850
2015	61,500	1,487,888	23,283,450	1,346,500	12,116,238	38,295,575
2016	61,500	1,487,888	30,052,650	1,346,500	5,757,500	38,706,038
2017	61,500	5,727,888	30,053,075	1,346,500	1,724,250	38,913,213
2518	61,500	5,730,288	30,053,938	1,346,500	1,721,850	38,914,075
2019	1,261,500	5,730,875	12,761,563	1,346,500	17,813,250	38,913,688
2020		4,384,125		3,891,500		8,275,625
2021		4,295,125		3,979,250		8,274,375
2022		4,200,875		4,076,250		8,277,125
2023		4,101,563		4,176,500		8,278,063
2024				8,274,250		8,274,250
2025				8,274,000		8,274,000
TOTAL	**$1,815,000**	**$63,733,255**	**$244,632,313**	**$46,136,750**	**$80,833,525**	**$437,150,843**

CONVENTIONAL LOCAL GOVERNMENT FUNDS NOT RECEIVED BY THE RCID

State Funds

Most local governments in the State of Florida receive a substantial portion of their funds in the form of intergovernmental transfers from the state. Revenue sharing dollars, gas tax proceeds, sales tax proceeds, hotel tax proceeds, liquor tax proceeds, pari-mutual tax proceeds, and a variety of license taxes and grants are typically disbursed by the state to cities and counties in Florida. The District receives no such revenues from the state. While visitors and persons employed within the District pay sales, gas, and hotel taxes to the various commercial operators, the revenues are returned to Orange and Osceola counties rather than to the District itself.

Federal Funds

The District receives no federal grants or federal funds.

SCHOOL AND HEALTH CARE FACILITIES

The District, the City of Bay Lake, and the City of Lake Buena Vista requested and received an exemption from school concurrency requirements pursuant to a letter from the Department of Community Affairs dated May 16, 2008. There are currently no students residing within the District attending any Osceola County public school. There are six minors living within the District that may now or may in the future attend Orange County public schools. Taxpayers in the RCID paid taxes to the Orange County and Osceola County school boards at millage rates of 7.6730 and 7.6630 respectively for FY 2010.

Rule 9J-5.016(1)(b) indicates that the Capital Improvement Element must identify the service area and location of public school and public health care facilities in the jurisdiction. Presently, there are no public school facilities within the District boundaries. Health care facilities within District boundaries are limited to a Centra-Care facility, a privately operated facility on CR 535, providing limited health care services to visitors and persons employed within the District. There are also privately operated emergency medical services within the District's major attractions along with a recently opened wellness center. Health care facilities are located to the south (Celebration) and to the east (Sand Lake Road) of the District.

ANALYSIS

PURPOSE

The purpose of this analysis is to determine if future revenues will be sufficient to meet future capital improvement and operating costs. The analysis takes into consideration the outstanding obligations of the District and projects future obligations based on the capital improvements program and anticipated growth. Five basic steps are followed.

Step 1: A list of capital improvements is presented, including the cost and timing of each improvement. The list is based on committed development for the next two years and projected development patterns for the three years beyond that.

Step 2: Future revenues are projected for each of the next five years. Yearly increases in ad valorem tax revenues are projected based on the additional value of projected new development each year. Incremental increases in utility sales are projected based on the amount of development projected to be added during each of the next five years.

Step 3: Future non-capital expenses are projected for each of the next five years. Expenses are based on the operating budgets of the District, the cost of serving new development, and the outstanding debt on bonds.

Step 4: The amount available for new capital projects (or additional debt service) during each of the next five years is calculated. This amount is equal to Step 2 minus Step 3.

Step 5: The findings of Step 4 are compared with Step 1 to demonstrate the sufficiency of funds for capital improvements.

CURRENT RCID PRACTICES

Organization of Funding

The day-to-day functions of road maintenance, fire protection, planning, building, safety, administration, environmental protection, and flood control are financed through the General Fund. This fund is predominantly derived from ad valorem taxes, building permits and fees, and interest from investments. The day-to-day operations of the water, wastewater, solid waste, electric, natural gas, hot water, and chilled water systems are financed through the Utility Enterprise Fund. This fund is predominantly derived from service charges to the users of these facilities and through connection fees.

Major capital improvements are funded in one of two ways.

1) Roads, drainage, street lighting, fire protection, and land acquisition are generally financed through the governmental Capital Projects Fund. The sources of revenue to this fund are usually general obligation (ad valorem tax) bond proceeds or transfers of revenues out of the General Fund.

2) Water, sewer, solid waste, electric, natural gas, hot water, and chilled water projects are financed through the Utility Enterprise Fund. Major projects are financed through revenue bonds, the proceeds of which are disbursed through a construction fund.

Institutional Arrangements

The RCID owns and operates the wastewater collection, treatment, and disposal system; the arterial road system; and a solid waste collection system. In addition, the RCID is authorized to provide fire protection and flood control services. No other organizations providing these services may be operated within the District without prior consent of the RCID Board of Supervisors.

From 1974 through 1986, the Reedy Creek Utilities Company, a wholly owned subsidiary of the Walt Disney World Company, provided electric, water, natural gas, chilled water, and hot water utility services within the District. Effective October 1, 1987, the District assumed responsibility for providing services within the District. At that time, Reedy Creek Utilities Company was renamed Reedy Creek Energy Services, Inc., and its assets were leased to the District for 22 years. During 1997, the lease was amended to modify the annual payments for the fiscal years 1998 through the end of the lease. The RCID had the option to buy the leased facilities anytime after October 1, 1997. The District purchased all of the assets in FY 2003, except for assets used for the production and distribution of chilled water, which the District continues to lease from the Walt Disney World Company

By agreement, the Walt Disney World Company operates and maintains various drainage facilities and maintains various road rights-of-way. The District was billed $1.8 million for these services in FY 2009.

Preparation of Annual Budgets

Governmental Funds – It is the District's policy that an annual budget for the General Fund be established and approved by the Board of Supervisors. The budget itemizes revenues from taxes, permits, interest, postal services, and miscellaneous other sources. These revenues totaled $48,250,322 during FY 2009, which was 4.2 percent below the budgeted amount of $50,353,190. The budget also includes expenditures for the various District departments and includes labor costs, operating costs, capital outlays, and insurance. These expenditures totaled $45,492,332 in FY 2009 – 15.4 percent below the budgeted amount of $53,795,540. Excess revenues over expenditures equaled $2,757,990, the balance of which was transferred out of the General Fund and into the Debt Service Fund.

Utility Enterprise Fund – Annual budgets must be prepared prior to 30 days before the end of a fiscal year. The budget contains the estimated expenditures for operation and maintenance and the estimated revenues of the system during the upcoming fiscal year. Opportunities for public discussion of the proposed budget are typically held during the month preceding budget adoption.

During the fiscal year ending September 30, 2009, Utility Enterprise Fund concurrency revenues were $40,552,185, which was $5,773,876 or 12.5 percent below the budgeted amount. Operating expenses were $20,282,229 – $5,029,423 or 19.9 percent lower than budgeted. Operating income equaled $20,269,956, of which $17,023,782 was used for debt service and reserves.

Private Sector Contributions

Land Development Regulations provide for the recovery of major capital costs from the parties generating the demand for the facility or service. The Land Development Regulations include the level of service standards for roads, potable water, wastewater, solid waste, drainage, and parks and recreation. As such, they establish basic parameters for capital improvements serving new development areas.

All construction in the District is subject to the permitting requirements of the RCID. These requirements provide for developer contributions for water and sewer connections, solid waste facilities, provisions for drainage, and road improvements. While the District requires connection fees for water and sewer, it does not presently charge impact fees for any public services. In some instances, facilities are built by the private sector and then dedicated to the District upon completion.

Use of User Fees to Recover Capital Costs

The District's policy is that the cost of providing utility services to its landowners be recovered through user fees paid by the beneficiaries of those services. Rates are set to cover not only the cost of providing service, but also the capital costs and debt service charges incurred as facilities are expanded or replaced. Utility rates are reviewed annually to ensure that they sufficiently cover expenses and debt service. These rates are comparable to rates charged by governmental entities outside the District. Under the terms of its revenue bonds, the District is required to maintain utility rates that ensure that net revenues (revenues minus operating expenses but excluding leases) are sufficient to pay at least 110 percent of annual debt service. Rates during the FYE 2009 produced sufficient revenue to meet this requirement.

Use of the Capital Improvement Programs to Direct Public Investment

The Capital Improvement Program is the principal tool for scheduling major infrastructure improvements in the District. Programs are prepared and updated annually to reflect changing development objectives, the condition of facilities and inventory, unit costs, and revenue forecasts. Although programming for all improvements is carefully coordinated, a number of different departments undertake the task.

Roads – The District maintains a traffic circulation plan that is updated periodically as the Future Land Use Map is modified. The timing of major road improvements is based on the construction schedule for various projects, such as hotels or attractions. Once the need for a new road or road improvement is identified, a design and construction timeline is prepared.

The District's Capital Improvements Program provides the foundation for updates to the roadway network used in the RCID Transportation Concurrency Management System (CMS). Regarding concurrency, Florida Administrative Code Rule 9J-5.0055 requires that the District provide public facilities and services concurrent with the impacts of development. If existing roadways do not have adequate infrastructure, the District may meet concurrency requirements with interlocal agreements or other binding agreements to have these facilities in place at the time of development.

Additions to the public road network in the District are planned concurrently with development in the District and are coordinated with the Metropolitan Planning Organization and adjoining local governments, where appropriate. Plans are revised as necessary to reflect county, state, and federal road improvement programs and conditions and to reflect changing land use plans in surrounding local jurisdictions.

Potable Water, Reuse Water and Sanitary Sewer – The District maintains a master plan for potable water, reuse water, and sewer facilities that corresponds to the Future Land Use Map. The master plan is updated regularly in response to changing development objectives. The timing of potable water, reuse water, and sewer projects reflects the anticipated rate and location of new development and is driven by the construction schedule of the major landowner. Potable water, reuse water, and sewer projects are planned and timed to ensure concurrency with development. Adequate potable water must be available no later than the date on which the District anticipates issuing a certificate of occupancy.

Solid Waste – Historic records on solid waste generation from the major land uses in the District are used as the basis for projecting future solid waste volumes. The District regularly updates its standards for solid wastes generated per room and per visitor. Applying these standards to the projections of development, future volumes of waste are recalculated and plans for new facilities are updated regularly.

The projections are incorporated into a long-range facility plan that allows the District to design, locate, and construct new facilities as needed. This plan is augmented as necessary, reflecting changing state and federal requirements for solid waste disposal and resource recovery. Projects are funded through the Construction Fund, a subset of the Utility Enterprise Fund.

Stormwater Management – The Chief Engineer for Reclamation and Water Control for the RCID prepares an annual report on drainage facilities. The report includes recommendations to correct existing deficiencies and to serve anticipated development. Based on the results of the annual water control structure inspection report routine and non-routine maintenance work is planned, budgeted, and then completed the following year.

Parks and Recreation – Because parks and recreational facilities in the District are privately operated and because the District lacks a significant permanent population, parks and recreation are not included as a concurrency service in this element

FISCAL IMPLICATIONS OF THE NEEDED CAPITAL PROJECTS

Introduction

Five Year Schedules of Capital Improvements for roads, potable water and reused water, sanitary sewer, and solid waste for 2011 through 2015 are presented in Tables 9-8 through 9-12 and located on Figures 9-1 through 9-5. A combined summary is presented in Table 9-7, which shows total capital improvements of about $38.7 million, including approximately $3.9 million for roads, $8.3 million for potable water and reuse water, $22.8 million for sanitary sewer, $2.3 million for solid waste, and $1.5 million for stormwater management. No District maintained public services or facilities subject to concurrency – roads, potable water, sanitary sewer, solid waste, stormwater management, or parks and recreation – are deficient; all are currently operating above their adopted level of service standards and have excess capacity. However, as presented in the Transportation Element three State maintained roadways are currently operating below their adopted LOS standard. The list of improvements is based on the projected growth and development patterns consistent with the Future Land Use Element and the Future Land Use Map. Improvements have been prioritized and timed based on the criteria contained in the Infrastructure and Transportation Elements.

Table 9-7: Summary Five Year Schedule of Capital Improvements (in thousands)

	2011	2012	2013	2014	2015	TOTAL
Roads	$3,000	$900	$0	$0	$0	$3,900
Potable and Reuse Water	1,764	590	3,090	1,620	1,190	8,254
Sanitary Sewer	1,640	8,200	12,500	420	0	22,760
Solid Waste	2,300	0	0	0	0	2,300
Stormwater Management	0	1,500	0	0	0	1,500
TOTAL	**$8,704**	**$11,190**	**$15,590**	**$2,040**	**$1,190**	**$38,714**

Roads

Programmed capital improvement projects for roads are identified on Figure 9-1 and listed in Table 9-8. Construction of these projects will ensure maintenance of the adopted levels of service standard as additional development occurs. All listed projects are consistent with the Future Land Use Map and are intended to accommodate future development in areas designated for hotels, commercial projects, other mixed uses, and support and public facilities. The projects are also consistent with the improvement programs of Orange and Osceola counties.

RCID road projects during 2011 through 2015 are projected to cost approximately $3,900,000. Cost estimates include design and engineering, road construction, and all road related infrastructure (including stormwater ponds, signals, lighting, etc.) and are based on projects already in progress and design and construction bids received.

Western Way, Hartzog Road, and the Loop Road within the Flamingo Crossings Development were completed during 2010. Flamingo Crossings Blvd (Hartzog Road) north of Western Way was substantially completed in early 2010 and is open to traffic. The design and engineering of Flamingo Crossings Blvd south of Western Way is at 60 percent. The funding source for all programmed RCID roadway projects is ad valorem tax bond funds already on hand. Orange Lake Country Club will be contributing $3.2 million toward the construction of Flamingo Crossings south of Western Way; a contract between Orange Lake Country Club and the District has been executed.

The Reedy Blvd roadway improvement project (construction of a two lane rural road connecting the paved portion of Reedy Blvd to Sherberth Road) included in the FY 2009 through FY 2013 CIE has been removed from the Five Year Schedule of Capital Improvements for Roads. The proposed project to be served by the proposed roadway improvement may be located on a different site.

The adopted level of service standards for peak-season, peak-hour functionally classified roads in the District are as follows:

ROAD CLASSIFICATION	STATE	COUNTY	RCID
Principal Arterial (Limited Access)	D	N/A	E
Principal Arterial (Major)	D	N/A	E
Minor Collector	E	E	E
Collector	N/A	E	E
Local Roads	N/A	N/A	N/A

As outlined in the Transportation Element, the following State maintained roadway segments are currently operating below their adopted LOS standard based on 2008 traffic counts:

- Interstate 4 from US 192 to Osceola Parkway
- Interstate 4 from Osceola Parkway to Epcot Center Drive
- US 192 from East RCID Boundary to I-4.

The following State maintained roadway is projected to operate below its adopted LOS standard based on trips reserved for RCID projects:

- US 192 from Road B-1 (Griffin Road) to West RCID Boundary.

There are no projects in the FDOT Adopted Five-Year Work Program and MetroPlan Orlando TIP within the 2011 through 2015 planning period that will correct the above deficiencies to State maintained roadways. Funds are programmed in the FDOT Tentative Five-Year Work Program and MetroPlan Orlando TIP for right-of-way acquisition for I-4 in Orange and Osceola Counties and for construction of a braided ramp on I-4 from US 192 to Osceola Parkway; however the capacity of the Interstate 4 segments will not change during the 2015 planning period.

No RCID maintained roadway segment is projected to fall below its adopted LOS standard based on projected 2015 traffic volumes:

Improvements to this roadway are not currently programmed due to the uncertainty of the timing of future projects generating the projected trips.

Figure 9-1: RCID Roadway Capital Projects Location Map

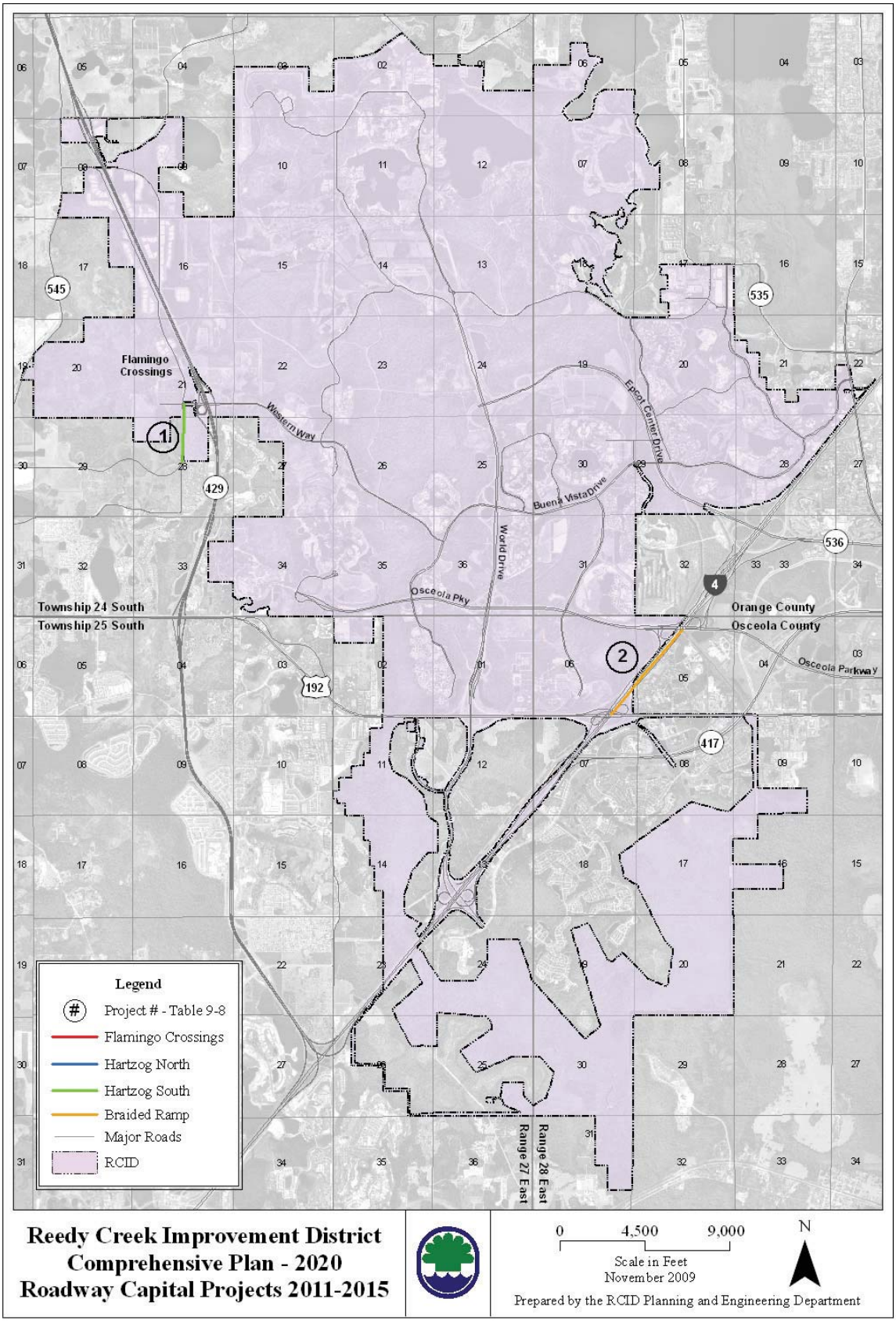


Table 9-8: Five Year Schedule of Capital Improvements for Roads (in thousands)

Figure 9-1 Project #	Project Description	Funding Source	2011	2012	2013	2014	2015	Total	Consistency with Other Plan Elements
RCID Projects									
1	**Flamingo Crossings Blvd south of Western Way** Construction of a four lane urban road to serve that portion of Flamingo Crossings located south of Western Way and to provide paved access to the southern paved portion of Hartzog Road.	Bond Funds (On Hand) Orange Lake Country Club is paying $3.2 million of the budgeted $7.1 million cost per executed agreement.	3,000	900	0	0	0	3,900	Transportation Element Policies 2.1 and 5.1
	Total Roads		**$3,000**	**$900**				**$3,900**	
FDOT Five Year Work Program (Tentative)									
2	**I-4 Braided Ramp** Interchange improvement from US 192 to Osceola Parkway.	DIH, DS, & LF	$80	$15,307	0	0	0	$15,387	
	I-4 Master Plan Right of Way Acquisition from Orange County	DIH, DS, & LF	10,633	49,494	20,000			80,127	
	Total Roads		**$10,713**	**$64,801**	**$20,000**	**$0**	**$0**	**$95,514**	

Potable and Reuse Water

Note: In accordance with Section 119.071(3), Florida Statues, maps of the RCID water supply and distribution system are not provided herein due to the sensitive nature of these facilities and the security thereof.

Required capital improvement projects for potable water are located on Figure 9-2 listed in Table 9-9. Construction of these projects will ensure maintenance of the adopted levels of service as additional development occurs. All listed projects are consistent with the Future Land Use Map and are intended to accommodate future development in areas designated for hotels, commercial projects, and other mixed uses. Reuse water projects are included as identified in the Ten-Year Water Supply Facilities Work Plan; these projects are critical to ensuring that an adequate supply of potable water is available to meet the demands of future growth and development. The projects are also consistent with the improvement programs of Orange and Osceola counties, and the South Florida Water Management District.

Projects during 2011 through 2015 are projected to cost approximately $8,254,000. Most of the cost is associated with extension of the distribution system to serve new development areas with potable and reuse water and to convert development currently using potable water for irrigation to reuse water. Areas of new development are Flamingo Crossings, located west of SR-429 at Western Way, and Golden Oak, a project located on land adjacent to the northeast boundary of the District that was de-annexed in 2008. Potable and reuse water are being provided to the Golden Oak project under an interlocal wholesale services agreement with Orange County. The reuse conversion projects include the following:

- Extend 8-inch distribution main along Seven Seas Drive to serve the Ticket and Transportation Center and the Polynesian Resort,
- Extend distribution main from World Drive to serve the Swan and Dolphin Resorts and the Yacht and Beach Club Resorts,
- Extend distribution line along Hotel Plaza Blvd to serve six hotels, the Amateur Athletic Union, and the RCID Administration Building,
- Extend 4-inch distribution line across Buena Vista Drive to serve the Casting Center and the SunTrust Building
- Extend 6-inch distribution line across Buena Vista Drive to serve the Buena Vista Palace Hotel, and
- Extend 4-inch distribution line up Buena Vista Drive to serve Fire Station 4

Installation of an in-ground reservoir tank to increase storage capacity is also planned. Funding for these projects will be derived from bond funds on hand and net revenues in the Utility Enterprise Fund.

The District's adopted level of service standards for potable water are as follows:

LAND USE	UNIT	GALLONS/DAY
Residential	dwelling	350
Hotel (General)	keys	200
Luxury/Deluxe	keys	250
First Class	keys	200
Moderate/Economy	keys	150
Other Resort	unit	250
Convention Space	square feet	0.25
Support Office	square feet	0.25
Retail/General Commercial	square feet	0.30
Restaurant	seat	25
Theme Park (General)	guest	50
Theme Park (Water)	guest	75

During 2010, the District's average daily demand for potable water was 16.23 million gallons per day. Demand is projected to increase by 7.692 million gallons per day (MGD) to accommodate growth through 2020 as presented in the District's 10-Year Water Supply Facilities Work Plan (Work Plan). The District's current water use permit allocation is 22.2 MGD, thus the District is projecting a shortfall of 1.722 MGD. As presented in the District's Work Plan, the shortfall is to be made-up by potable water irrigation and cooling tower conversions to reuse; the conversions are projected to reduce potable water use by 1.9 MGD.

The District's Concurrency Management System for Potable Water shows committed allocations for projects currently under development or approved for development of 1.778, which brings the total demand for potable water to 18.008 MGD versus a current capacity of 22.2 MGD or a remaining capacity of 4.192 MGD

Figure 9-2: RCID Potable and Reuse Water Capital Projects Location Map

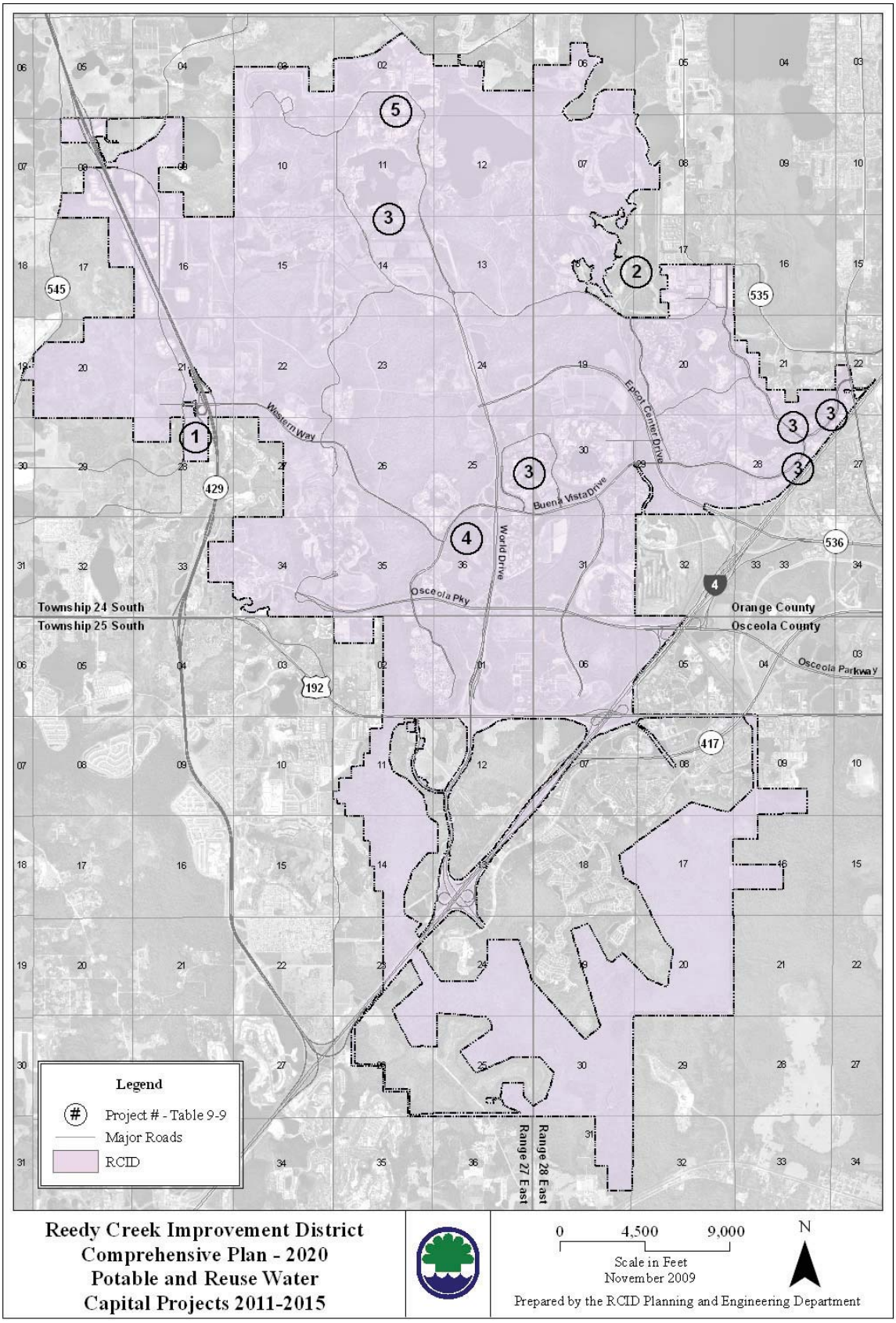


Table 9-9: Five Year Schedule of Capital Improvements for Potable and Reuse Water (in thousands)

Figure 9-2 Project #	Project Description	Funding Source	2011	2012	2013	2014	2015	Total	Consistency with Other Plan Elements
1	Flamingo Crossings (Potable Water) Extension of distribution mains for Phase 2A, Phase 2B, and Phase 3. $270,000 moved from 2010 to 2011	Bond Funds.(On Hand) or Net Revenues	$270	$0	$0	$390	$0	$660	Infrastructure Element Policies 1.2. 1.3, and 1.4
2	Golden Oak (NE Resort) (Potable Water) Extension of distribution mains. Decreased from $560,000, moved from 2010 to 2011.	Bond Funds.(On Hand) or Net Revenues	520	0	0	0	0	520	Infrastructure Element Policies 1.2. 1.3, and 1.4
Not Shown	PS-D 2MG Reservoir – (Potable Water) installation of in-ground tank. Budget increased from $1,750,000, moved from 2010 to 2013	Bond Funds.(On Hand) or Net Revenues	0	0	2,000	0	0	2,000	Infrastructure Element Policies 1.2. 1.3, and 1.4
4	H-1 Site Resort (Potable Water) Extension of distribution mains. Budget moved from 2014 to 2015	Bond Funds.(On Hand) or Net Revenues					440	440	Infrastructure Element Policies 1.2. 1.3, and 1.4
3	Reclaimed Water Conversions (WSFWP) Cooling towers (completed). Installation or extension of distribution mains. Budget increased from $331,000, rescheduled to commence in 2011 rather than in 2012.	Bond Funds.(On Hand) or Net Revenues	370	590	1,090	910	0	2,960	Infrastructure Element Policy 5.5
1	Flamingo Crossings (Reuse) Extension of distribution mains	Bond Funds.(On Hand) or Net Revenues	100	0	0	320	0	420	Infrastructure Element Policy 5.3
2	Golden Oak (NE Resort) (Reuse) Extension of distribution mains. Increased from $310,000, moved from 2010 to 2011.	Bond Funds.(On Hand) or Net Revenues	410	0	0	0	0	410	Infrastructure Element Policy 5.3
5	Magic Kingdom Fantasyland Rehab Project (Reuse) Extension of distribution mains	Bond Funds.(On Hand) or Net Revenues	94					94	Infrastructure Element Policies 5.3
4	H-1 Site Resort (Reuse) Extension of distribution mains. Budget moved from 2014 to 2015	Bond Funds.(On Hand) or Net Revenues					750	750	Infrastructure Element Policy 5.3
Total Potable and Reuse Water			**$1,764**	**$590**	**$3,090**	**$1,620**	**$1,190**	**$8,254**	

Sanitary Sewer (Wastewater)

Note: In accordance with Section 119.071(3), Florida Statues, maps of the RCID wastewater collection and transmission system are not provided herein due to the sensitive nature of these facilities and the security thereof.

Required capital improvement projects for sanitary sewer (wastewater) are located on Figure 9-3 and listed in Table 9-10. Construction of these projects will ensure maintenance of the adopted levels of service as additional development occurs. All listed projects are consistent with the Future Land Use Map and are intended to accommodate future development in areas designated for hotels, commercial projects, and other mixed uses. The projects are also consistent with the improvement programs of Orange and Osceola counties and the standards of the U.S. Environmental Protection Agency and the Florida Department of Environmental Regulation.

Projects during 2011 through 2015 are projected to cost approximately $22,760,000. As shown in Table 9-10; this figure includes the extension of the collection system to serve new areas of development and the expansion of the wastewater treatment plant from a capacity of 15.0 mgd to 20.0 mgd. The expansion of the plant was originally planned for 2002 and 2003, but development slowed and the expansion was not necessary. The expansion to 20 mgd is projected to provide sufficient capacity to meet the demands of development for the next 20 years. Areas of new development are Flamingo Crossings, located west of SR-429 at Western Way, and Golden Oak, a project located on land adjacent to the northeast boundary of the District that was de-annexed in 2008. Sanitary sewer service is being provided to the Golden Oak project under an interlocal wholesale services agreement with Orange County. Funds for the expansion of the collection system to new areas of development will be derived from bond funds on hand and user fees in the Utility Enterprise Fund. The wastewater treatment plant expansion will be funded by the issuance of revenue bonds.

Biosolids (sludge) disposal is currently accomplished through an aerated static pile composting system, which generates a Class AA quality product (highest quality) as defined by FDEP. The District is exploring alternatives to this method of disposing of the sludge. One alternative being explored is a Biosolids / Food Waste to Energy Facility. Although included in the Schedule this project is preliminary.

The District's adopted level of service standards for sanitary sewer are as follows:

LAND USE	UNIT	GALLONS/DAY
Residential	dwelling	300
Hotel (General)	keys	180
Luxury/Deluxe	keys	230
First Class	keys	180
Moderate/Economy	keys	130
Other Resort	unit	230
Convention Space	square feet	0.20
Support Office	square feet	0.20
Retail/General Commercial	square feet	0.25
Restaurant	seat	20
Theme Park (General)	guest	30
Theme Park (Water)	guest	50

The 2010 average daily wastewater flow of 11.641 million gallons per day is being used as the basis to project future demand. Demand is projected to increase to 18.263 million gallons per day (MGD) to accommodate growth through 2020. This growth will necessitate the planned expansion of the wastewater treatment plant to a 20 MGD capacity.

The District's Concurrency Management System for Sanitary Sewer shows committed allocations for projects currently under development or approved for development of 1.576, which brings the total demand for wastewater treatment to 13.217 MGD versus a current capacity of 15.0 MGD or a remaining capacity of 1.783 MGD.

Figure 9-3: RCID Sanitary Sewer (Wastewater) Capital Projects Location Map

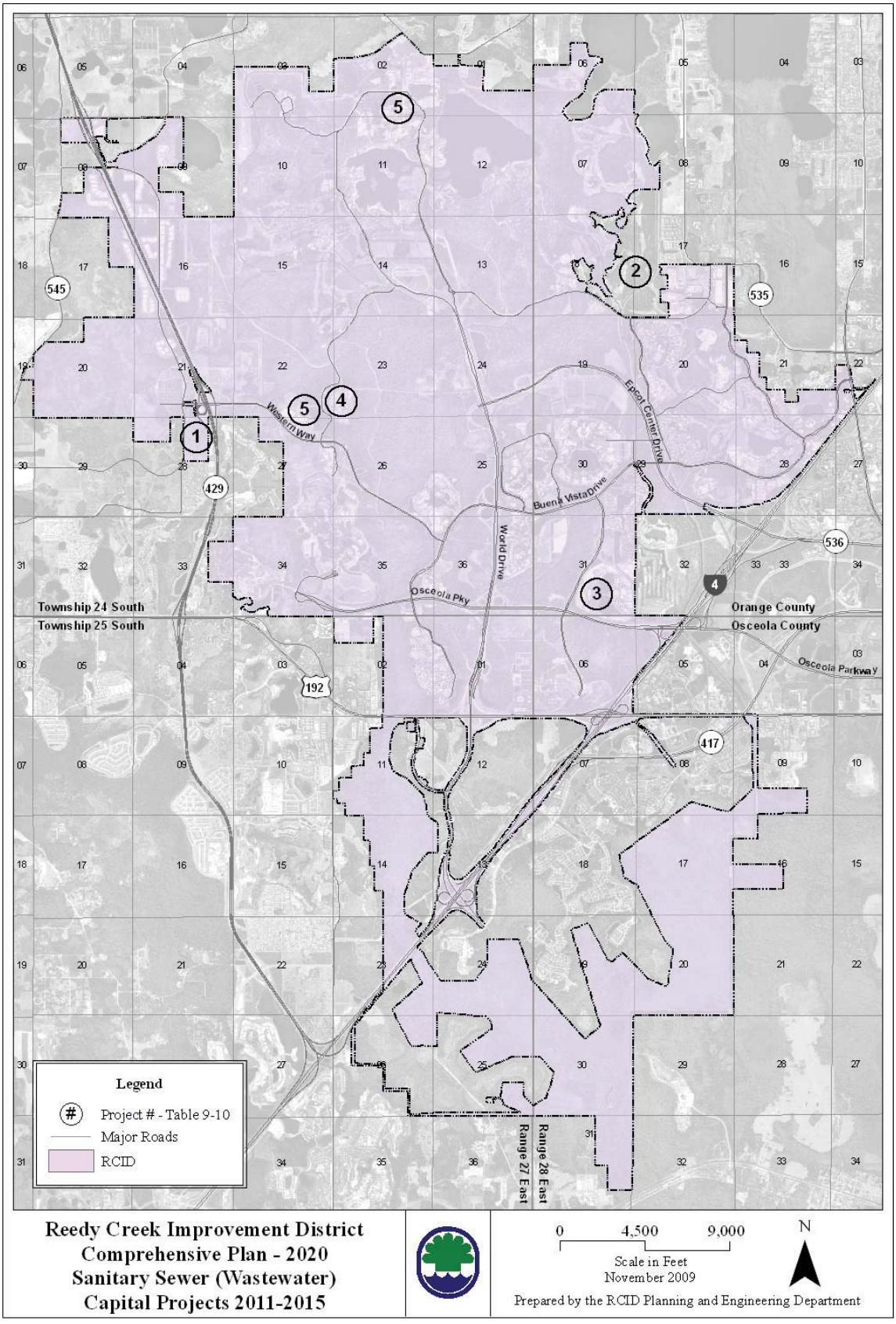


Table 9-10: Five Year Schedule of Capital Improvements for Sanitary Sewer (in thousands)

Figure 9-3 Project #	Project Description	Funding Source	2011	2012	2013	2014	2015	Total	Consistency with Other Plan Elements
1	Flamingo Crossings Extension of distribution mains for Phase 2A, Phase 2B, and Phase 3. $140,000 moved from 2010 to 2011	Bond Funds.(On Hand) or Net Revenues	$140	$0	$0	$420	$0	$560	Infrastructure Element Policies 5.2. and 5.3
2	Golden Oak (NERP) Extension of collection mains. Budget reduced from $1,900 and delayed from 2009/10 to 2011	Bond Funds.(On Hand) or Net Revenues	1,200			0	0	1,200	Infrastructure Element Policies 5.2. and 5.3
3	Pop Century Phase 2 Expansion of collection mains. Budget reduced from $1,400 and delayed from 2010 to 2011 and 2012	Bond Funds.(On Hand) or Net Revenues	300	700		0	0	1,000	Infrastructure Element Policies 5.2. and 5.3
4	Wastewater Treatment Plant Expansion Increase plant capacity from 15 mgd to 20 mgd. The commencement of this project has been delayed from 2010 to 2012 due to a current lack of need/demand for services.	New Bond Proceeds	0	5,000	5,000	0	0	10,000	Infrastructure Element Policies 5.2. and 5.3
5	Biosolids/Food Waste to Energy Facility Exploring alternatives to composting of wastes. Budget amount and timing preliminary	New Bond Proceeds		2,500	7,500	0		10,000	Infrastructure Element Policies 5.2. and 5.3
	Total Sanitary Sewer		**$1,640**	**$8,200**	**$12,500**	**$420**	**$0**	**$22,760**	

Solid Waste

For the period 2011 through 2015, the District is exploring options for a new solid waste transfer station. The project is included in the Five-Year Schedule for Capital Improvements for Solid Waste as a fiscal responsibility of the District in contrast to last year's Schedule which anticipated the construction of a new facility to be owned and operated by a third party. The transfer station is currently located at the North Service Area. A new facility could be constructed at the South Service Area or south of Animal Kingdom as shown on Figure 9-4.

The District's DEP permit provides for operation of the transfer station 24 hours per day, 7 day per week at a capacity of 275 tons per day. The District currently operates about 21 hours per day, 7 days per week at a capacity of about 177 tons per day. Drivers collect, dump, and operate the loading-push pit operation that packs the waste into transfer trailers. A third party contractor then hauls trailers to the Waste Management landfill near Lake Okeechobee, Florida, which has a projected remaining life of at least 75 years.

The District's adopted level of service standards for solid waste are as follows:

LAND USE	UNIT	LBS/DAY
Residential	dwelling	11.5
Hotel (General)	keys	7.5
Luxury/Deluxe	keys	11.0
First Class	keys	8.5
Moderate/Economy	keys	6.0
Value	keys	3.5
Other Resort	unit	6.0
Convention Space	square feet	0.0325
Support Office	square feet	0.002
Retail/General Com'l/Restaurant	square feet	0.0325
Theme Park (General)	park	10 to 20 tons
Theme Park (Water)	park	0.5 to 1.0 tons

During 2009, the District's handled an average of 177 tons of solid waste per day. Demand is projected to increase to 274 tons per day to accommodate growth through 2020. This growth will result in the utilization of the entire capacity of the current transfer station during the 2020 planning horizon.

The District's Concurrency Management System for Solid Waster shows committed allocations for projects currently under development or approved for development of 20.777 tons per day, which brings the total demand for solid waste processing to 197.495 tons per day versus a current capacity of 275 tons per day or a remaining capacity of 77.505 tons per day.

Figure 9-4: RCID Solid Waste Capital Projects Location Map

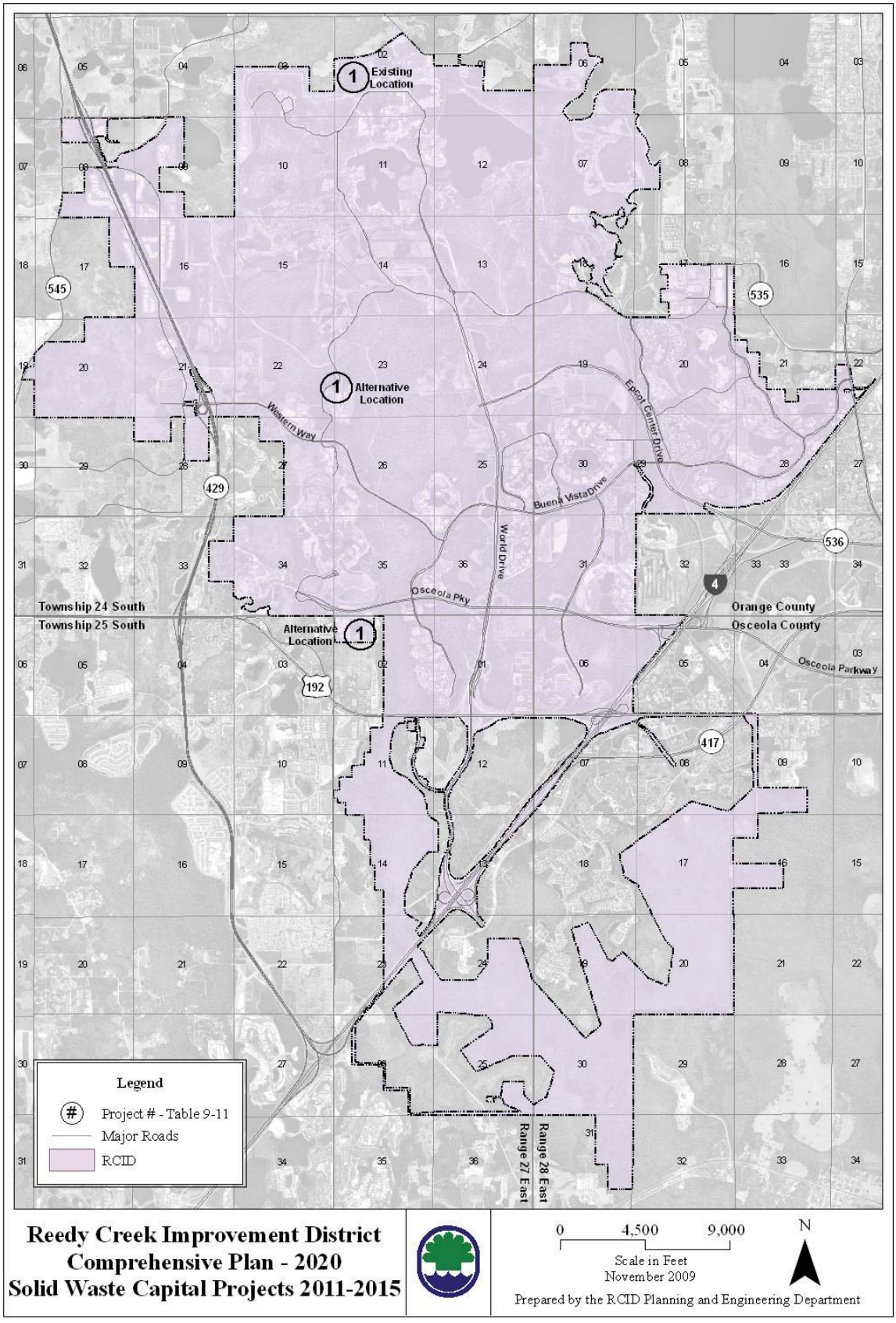


Table 9-11: Five Year Schedule of Capital Improvements for Solid Waste (in thousands)

Figure 9-4 Project #	Project Description	Funding Source	2011	2012	2013	2014	2015	Total	Consistency with Other Plan Elements
1	**Solid Waste Transfer Station** Construction of new facility owned and operated by Waste Management of Florida on land leased from the District is no longer the only option for a new facility. The District continues to consider alternative sites.	Bond Funds.(On Hand) or Net Revenues	$2,300	$0	$0	$0	$0	$2,300	Infrastructure Element Policy 8.5.
	Total Solid Waste		**$2,300**	**$0**	**$0**	**$0**	**$0**	**$2,300**	

Stormwater Management

For the period 2011 through 2015, the only new capital improvement to the stormwater management facilities is the replacement and upgrade of the water control structure (S-11) on the C-1 canal. This project is needed to maintain the adopted level of service standard for drainage. The replacement and upgrade of the S-11 water control structure will be funded by outside drainage fees on reserve. As previously noted drainage fees are not included in District revenues available for capital projects since these funds are contractually limited to certain stormwater management (drainage) projects, thus the improvement to the S-11 water control structure is not included in Table 9-22 which details capital cost versus available revenues.

Figure 9-5: RCID Stormwater Management Capital Projects Location Map

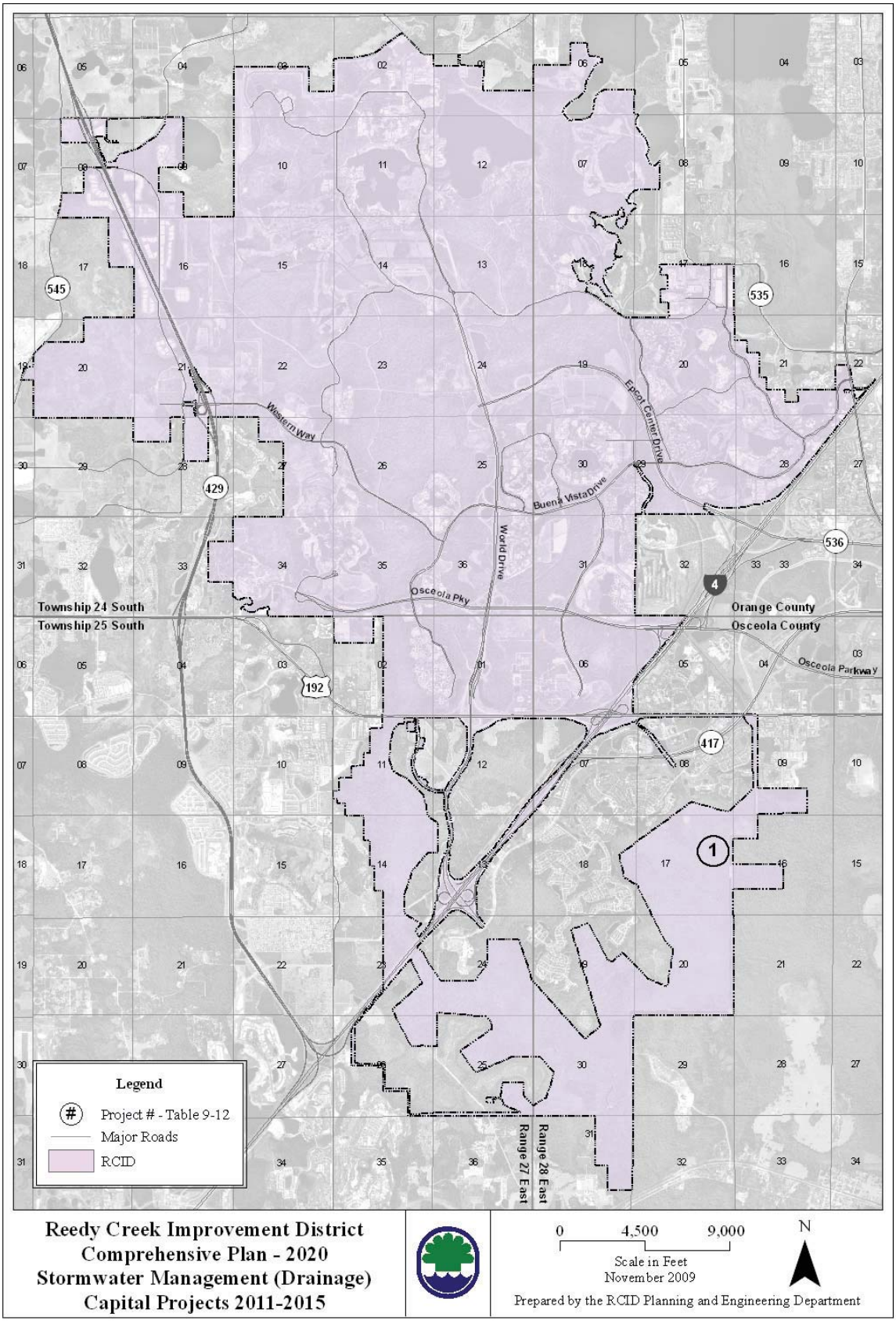


Table 9-12: Five Year Schedule of Capital Improvements for Stormwater Management (in thousands)

Figure 9-5 Project #	Project Description	Funding Source	2011	2012	2013	2014	2015	Total	Consistency with Other Plan Elements
1	Replacement and upgrade of water control structure S-11	Outside Drainage Fees on Reserve	$0	$1,500	$0	$0	$0	$1,500	Infrastructure Element Policy 13.2
Total Stormwater Management			**$0**	**$1,500**	**$0**	**$0**	**$0**	**$1,500**	

Parks and Recreation

No public parks are planned within District boundaries during the next five years.

Impact of New or Improved Public Educational or Public Health Care Systems and Facilities

No new public education or public health care systems and facilities are proposed for the RCID during the next five fiscal years; thus no impact on infrastructure is anticipated.

Impacts of Projects Planned by Other Public Agencies

At the present time, there are no transportation projects currently planned by public agencies that will significantly affect the RCID. There are no other federal, state, or regional agencies with pending projects that could impact the District other than regional water projects that the District has included in its 10-Year Water Supply Facilities Work Plan. The RCID maintains communication with the South Florida Water Management District, Department of Natural Resources, and Department of Environmental Protection, and is kept apprised of any planned projects that could impact the RCID facilities or future land use plan.

Consistency with Other Plan Elements

The projects listed in Tables 9-8 through 9-12 are consistent with the goals, objectives, and policies of the Comprehensive Plan and will advance the implementation of the Future Land Use Map. The traffic improvements listed in Table 9-8 are intended to facilitate development in vacant areas designated for future Mixed Use or Hotel/Resort development, particularly in the area of the Western Beltway (SR-429). The improvements provide access to future mixed-use developments that presently lack paved roadways. The improvements will also provide alternative routes to existing developments outside the District.

The potable and reuse water projects listed in Table 9-9 are intended to serve area specific projects scheduled for developed during the next ten years and to increase overall potable water availability by converting potable water irrigation to reuse as outline in the Potable Water Sub-element of the Infrastructure Element and the 10 Year Water Supply Facilities Work Plan. Area specific wastewater projects listed in Table 9-10 are intended to serve project scheduled for development during the next ten years. The expansion of the wastewater treatment facility will provide sanitary sewer capacity for the next 20 years based on anticipated future development levels. All water and wastewater projects are consistent with the policies and practices of the South Florida Water Management District, the Environmental Protection Agency, and the Florida Department of Environmental Protection. The construction of a new solid waste transfer station will enable the District to handle increased amounts of solid waste and more efficiently utilize its existing fleet of vehicles and staff for solid waste collection to meet increases in demand for solid waste services resulting from development. The Biosolids/Food Waste to Energy Facility is being explored as an alternative for utilizing the solids (sludge) from the wastewater treatment plant.

Most capital improvements are based on a series of specific development projects that have been proposed by the private sector and the District. The projects are located in areas designated as Mixed Use or Support or Public Facilities on the Future Land Use Map. The improvements and extensions of public services indicate where growth is generally anticipated; the quantity of this growth is dictated by the ranges and thresholds in the Future Land Use Element. Capital improvements have specifically been

designed to accommodate the level of development permitted by the Future Land Use Element and are only programmed in areas that are designated for urban uses on the Future Land Use Map.

The Five Year Schedule of Capital Improvements includes projects needed to provide public facilities and services to areas where specific developments have been proposed during the next ten years, and it provides increased capacities to public facilities and services to maintain adopted LOS standards while meeting the demands of anticipated future development.

REVENUE PROJECTIONS

Introduction

The projection of future revenues is based on the following assumptions:

- only historically available revenue sources are projected;
- the primary revenue source for the governmental funds is ad valorem taxes;
- the primary revenue source for the proprietary funds is utility sales; and
- all projections are in current dollars (inflation and appreciation are not calculated).

Governmental Funds

Ad Valorem Taxes – Table 9-3 shows the historical assessed valuations, millage rates, and tax bills for FY 2005 through FY 2010. From FY 2005 to FY 2010 the assessed valuation increased from $5,827 million to $7,197 million, an increase of 23.5 percent for the five year period or an average annual increase of about 5 percent. Changes in assessed valuation have been driven by redevelopment and expansion of existing resorts and theme parks. During this time period, Disney's Animal Kingdom Theme Park, Epcot, and Typhoon Lagoon added major attractions/rides, a number of existing resorts expanded lodging and convention space, and portions of two resort complexes were demolished and rebuilt as a vacation club (timeshare type) offerings. The millage rate averaged 10.1623 per $1,000 of assessed valuation for FY 2005 through FY 2010 with a low of 9.64550 mills for FY 2008 to a high of 10.7500 mills for FY 2010. Based on the before mentioned assessed valuations and millage rates, ad valorem taxes increased from $59.7 million in FY 2005 to $74.4 million in FY 2010. Ad valorem tax revenues increased an average of 5 percent from FY 2005 to FY 2010.

Table 9-13 shows projected future assessed valuations, millage rates, and ad valorem tax revenues through FY 2014. The figures for FY 2010 are based on the actual assessed value used for the tax bills. The projected assessed valuations are based on economic factors influencing commercial real estate values, development projects under construction, and approved and planned development projects that will be completed during FY 2010 through FY 2014. Construction of three vacation club projects were completed during FY 2009, various projects planned for Phase 1 and 2 of Flamingo Crossings to be completed during FY 2010 through FY 2014 will most likely be delayed, and the renovation and enhancement of Magic Kingdom's Fantasyland will be completer during this planning period. (The assessed valuation of vacation club development projects is realized incrementally with the sale of vacation club units, and projects completed during FY 2014 do not factor into the projected assessed valuations for this five year planning period.) The projected assessed valuation for FY 2011 includes an anticipated decrease in the overall assessment due to economic conditions that will not be offset by the completion of any new projects.

The tax base is projected to increase an average of 2.6 percent annually from $7,487 million for FY 2009 to $8,494 million for FY 2014. This projected increase is lower than the prior projection of an average 5 percent annual increase in the assessed valuation.

Based on these projections for assessed valuation and projected millage rates that historically fluctuate with budgetary and debt service requirements, the District's net tax revenues are projected to increase from $71.1 million in FY 2009 to $81.5 million in FY 2014, an average annual increase of 2.9 percent down from last year's projection of 4.7 percent.

Table 9-13: Projections of Assessed Valuation (in millions)

	Assessment Date	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Value Added 2008	01/01/2008	383					
District-wide Total		$7,487					
Value Added 2009	01/01/2009		$(233)				
District-wide Total			7,254				
Value Added 2010	01/01/2010			$100			
District-wide Total				7,354			
Value Added 2011	01/01/2011				$350		
District-wide Total					7,704		
Value Added 2012	01/01/2012					$395	
District-wide Total						8,099	
Value Added 2013	01/01/2013						$395
District-wide Total							8,494
Millage		9.8857	10.3427	10.2500	10.5000	10.2500	10.0000
Net Tax Revenue*		**$71.1**	**$72.0**	**$72.4**	**$77.7**	**$79.7**	**$81.5**

Note:
(*) Net Tax Revenue equals 96 percent of the tax bill to account for adjustments, discounts, and exemptions.

Other Governmental Funds Revenues – As indicated in Table 9-1 non-ad valorem sources can vary from about 4.5 to 18 percent of the governmental funds revenues. These sources include building permits and fees, interest income, interlocal agreements, post office, emergency services, and other. Drainage fees are excluded from projection because they are used solely for major and routine maintenance of the stormwater management system.

Building permits and fees and interest income declined with falling construction activity and interest rates in FY 2008 and FY 2009 and are projected to increase slightly in FY 2010. Revenue from interlocal agreements is based on projected growth in areas served by the roadway projects funded. FY 2009 numbers show that non-ad valorem revenue sources represented about 4.2 percent of the governmental funds revenues. The projections for FY 2010 through FY 2014 show non-ad valorem revenues sources equating to about 6 percent of the governmental funds revenues. These and other revenue projections are shown in Table 9-14.

Table 9-14: Revenue Projections for the RCID (in thousands)

Source	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Ad Valorem Taxes	$71,054	$72,029	$72,400	$77,700	$79,700	$81,500
Building Permits and Fees	827	1,000	1,000	1,000	1,000	1,000
Interest Earned	809	800	1,073	1,248	1,547	1,598
Interlocal Agreements	851	2,319	1,585	1,744	1,918	2,110
Postal/Fire Services/Other	665	428	471	518	570	627
TOTAL	**$74,206**	**$76,576**	**$76,528**	**$82,210**	**$84,735**	**$86,834**

Proprietary Funds

Utility Sales – Taken as a whole, District utility rates and charges produce revenues that together with investment earnings are sufficient to pay for all normal operation and maintenance expenses of the system, to pay annual debt service on all Series of Bonds, to meet the required deposits into the Renewal and Replacement Fund and the Emergency Repair Fund, to pay lease obligations, to fund additional capital improvements from revenues, and to provide for a balance available for other purposes. Revenues from water (potable and reuse), sanitary sewer, and solid waste sales accounted for about 20 percent of total utility sales during FY 2009. The revenues generated by potable and reuse water, sanitary sewer, and solid waste have not been historically sufficient to cover all directly related expenditures associated with providing these services. However rate increases are being projected that will generate significant increases in revenues from these utilities over the next five years.

Table 9-15 indicates projected utility sales revenues for potable water, sanitary sewer, solid waste, and reuse water for FY 2010 through FY 2014. The numbers for FY 2009 represent actual results for sales volumes and revenues.

The volume and sales projections for potable and reuse water, sanitary sewer, and solid waste are influenced by two opposing goals – the need for conservation of resources (and the reduced need for facility expansion) and the need to generate revenues to maintain facilities and cover debt obligations. The projected sales volumes for all services are projected to remain relatively flat over the next five years. However, as previously mentioned, rates are projected to increase, thus providing increased revenues. Overall annual consolidated utility revenues from potable and reuse water, sanitary sewer, and solid waste are projected to increase from about $45 million for FY 2009 to $52 million for FY 2014.

Table 9-15: Projected Revenue from Water, Sewer, and Solid Waste Sales

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
WATER						
Water Sales (million gallons)	5,715	5,655	5,655	5,677	5,717	5,717
Rate of Increase %	*2.11*	*(1.05)*	*0.00*	*0.39*	*0.70*	*0.00*
Average Rate per 1,000 gallons	$1.57	$1.59	$1.70	$1.73	$1.77	$1.77
Water Revenues (in millions)	$8.96	$8.99	$9.61	$9.84	$10.11	$10.11
Water Connection Fees (in millions)	$0.09	$0.03	$0.03	$0.10	$0.03	$0.03
Total Water Revenue (in millions)	**$9.05**	**$9.02**	**$9.64**	**$9.94**	**$10.14**	**$10.14**
SEWER						
Wastewater Sales (million gallons)	3,971	4,028	4,028	4,050	4,090	4,090
Rate of Increase %	*(1.5)*	*1.44*	*0.00*	*0.55*	*0.99*	*0.00*
Average Rate per 1,000 gallons	$5.77	$5.68	$6.07	$6.19	$6.31	$6.31
Sewer Revenues (in millions)	$22.93	$22.86	$24.44	$25.06	$25.82	$25.82
Sewer Connection Fees (in millions)	$0.09	$0.04	$0.04	$0.12	$0.04	$0.00
Total Sewer Revenues (in millions)	**$23.02**	**$22.90**	**$24.48**	**$25.18**	**$25.86**	**$25.86**
SOLID WASTE						
Solid Waste Sales (tons)	103,093	103,093	103,093	104,526	104,526	104,526
Rate of Increase %	*(20.6)*	*0.00*	*0.00*	*1.39*	*0.00*	*0.00*
Average Rate per ton	$97.73	$88.77	$94.79	$95.88	$98.56	$98.56
Solid Waste Revenues (in millions)	**$10.08**	**$11.37**	**$12.14**	**$12.45**	**$12.80**	**$12.80**
REUSE WATER						
Reuse Water Sales (million gallons)	1,732	1,683	1,683	1,697	1,729	1,729
Rate of Increase %	*10.46*	*(2.83)*	*0.00*	*0.83*	*1.89*	*0.00*
Average Rate per 1,000 gallons	$1.46	$1.53	$1.63	$1.66	$1.69	$1.69
Total Reuse Water Revenues (in millions)	**$2.52**	**$2.57**	**$2.74**	**$2.82**	**$2.93**	**$2.93**
TOTAL UTILITY REVENUES (in millions)	**$44.67**	**$45.86**	**$49.00**	**$50.39**	**$51.73**	**$51.73**

Connection Fees – Sewer and water connection fees will continue to provide a very minor secondary source of revenue to the Utility Enterprise Funds as shown in Table 9-15 above.

OPERATING AND NON-OPERATING COST PROJECTIONS

Governmental Funds

General Fund – Table 9-16 shows projected operating costs for General Fund services in the RCID. The numbers for FY 2009 represent actual audited expenditures. Compared to actual results of FY 2008, operating expenditures decreased about 12.7 percent during FY 2009 and are projected to increase 12.0 percent during FY 2010. It should be noted that the budgeted operating expenditures for FY 2009 totaled $53,796 million compared to actual expenditures of $45,492 million.

Table 9-16: Projected General Fund Operating Expenditures (in thousands)

Type of Expenditure	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Administration	$3,118	$3,523	$3,593	$3,665	$3,739	$3,813
Finance	529	628	647	673	700	728
Building and Safety	2,185	2,491	2,566	2,668	2,775	2,886
Emergency Services	22,880	24,648	25,387	26,403	27,459	28,557
Personnel Services	500	526	542	563	586	609
Information Services	1,448	1,873	1,929	2,203	2,292	2,833
Water Control and Roadway Maintenance	9,189	10,780	11,103	10,942	11,023	10,982
Planning and Engineering	1,491	2,035	2,096	2,180	2,267	2,358
Post Office	381	429	442	460	478	497
Groves	13	16	16	17	18	19
Operating Transfers	3,405	3,673	3,783	3,935	4,092	4,256
TOTAL	**$46,961**	**$52,679**	**$54,224**	**$55,715**	**$57,514**	**$59,258**
Rate of Increase (%)	*(12.7)*	*12.0*	*3.0*	*3.0*	*3.0*	*3.0*

Debt Service Fund – Outstanding general obligation bond payments (principal and interest) are shown in Table 9-5 and summarized for FY 2009 through FY 2014 in Table 9-17.

Table 9-17: Projected Governmental Funds Non-Operating Expenditures (in thousands)

Type of Expenditure	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Debt Service (Current)	26,527	26,492	26,014	26,012	25,994	26,015
Non-Concurrency Capital Outlays	1,183	1,645	1,683	1,664	1,674	1,669
TOTAL	**$27,710**	**$28,137**	**$27,697**	**$27,676**	**$27,668**	**$27,684**

Proprietary Funds

Operations/Maintenance – Projected operating expenses for the potable water, sanitary sewer, solid waste, and reuse water systems are indicated in Table 9-18.

Renewal and Replacement – The Utility Enterprise Fund includes an annual expense for reserve to be used for renewal and replacement of infrastructure.

Debt Service – The current schedule for debt service payments for the Utility Enterprise Fund are itemized in Table 9-6. However, the projects financed by the bonds listed in Table 9-6 include electric, natural gas, chilled water, and hot water system improvements. The District has determined the portion of debt service attributable to each type of utility based on the actual cost of projects constructed. The portion of debt service that can be attributed to water, sewer, solid waste, and reuse water projects is included by service category in Table 9-18.

Table 9-18: Projected Operating Costs for Water, Sewer, and Solid Waste (in thousands)

Utility/Type of Expenditure	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
WATER						
Operations/Maintenance	$4,457	$4,812	$5,004	$5,366	$5,586	$5,586
Reserve/Replacement	365	250	267	272	277	277
Debt Service	2,287	3,410	3,590	3,590	3,590	3,590
Total Water	**$7,109**	**$8,4065**	**$8,861**	**$9,228**	**$9,453**	**$9,453**
Rate of Increase %	(19.2)	18.2	5.4	4.1	2.4	0.0
SEWER						
Operations/Maintenance	$6,990	$7,501	$8,358	$9,598	$9,946	$9,946
Reserve/Replacement	1,579	1,365	1,657	1,689	1,724	1,724
Debt Service	11,762	10,548	11,538	11,538	11,538	11,538
Total Sewer	**$20,331**	**$19,414**	**$21,553**	**$22,825**	**$23,208**	**$23,208**
Rate of Increase %	(8.6)	(4.5)	11.0	5.9	1.7	0.0
SOLID WASTE						
Operations/Maintenance	$8,499	$8,868	$9,290	$9,566	$9,846	$9,846
Reserve/Replacement	922	1,616	869	886	904	904
Debt Service	1,025	1,131	1,221	1,221	1,221	1,221
Total Solid Waste	**$10,446**	**$11,615**	**$11,380**	**$11,673**	**$11,971**	**$11,971**
Rate of Increase %	(13.9)	11.2	(2.0)	2.6	2.6	0.0
REUSE WATER						
Operations/Maintenance	$336	$255	$319	$399	$499	$624
Reserve/Replacement	17	55	57	58	60	60
Debt Service	1,950	2,486	2,612	2,612	2,613	2,613
Total Reuse Water	**$2,303**	**$2,796**	**$2,988**	**$3,069**	**$3,172**	**$3,297**
Rate of Increase %	(4.8)	21.4	6.9	2.7	3.4	3.9
TOTAL UTILITY COSTS	**$40,189**	**$42,231**	**$44,782**	**$46,795**	**$47,804**	**$47,929**
Rate of Increase (%)	(11.8)	5.1	6.0	4.5	2.2	0.3

CAPACITY TO PAY FOR CAPITAL IMPROVEMENTS

Tables 9-19 and 9-20 indicate the projected balance between revenues and operating expenditures and debt service requirements for fiscal years 2009 through 2014 for General and Debt Service Funds and the Utility Enterprise Fund, respectively. The net revenues in each year represent the amount available for capital projects and new debt servicing.

Governmental Funds

Table 9-19 indicates that a surplus will be available in the General and Debt Service Funds during each of the next five fiscal years sufficient to fund projected non-concurrency capital projects and to provide bonding capacity as shown in Table 9-21.

Table 9-19: General and Debt Service Funds – Balance Between Revenues and Expenditures (in thousands)

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Total Revenues	$74,206	$76,576	$76,528	$82,210	$84,735	$86,834
Total Operating Expenditures	46,961	52,679	54,224	55,715	57,514	59,258
Current Debt Service	26,527	26,492	26,014	26,012	25,994	26,015
Balance – Net Revenues	718	(2,595)	(3,710)	483	1,227	1,561
Prior Year Balance	14,056	13,591	9,351	3,958	2,777	2,331
Net Revenues Available for Capital Outlay or New Debt Service	14,774	10,996	5,641	4,441	4,004	3,892
Projected Non-Concurrency Capital Outlays	1,183	1,645	1,683	1,664	1,674	1,669
Net Revenues Available for New Debt Service or Capital Outlays	**$13,591**	**$9,351**	**$3,958**	**$2,777**	**$2,331**	**$2,223**

Utility Enterprise Fund

Total revenues for water, sewer, solid waste, and reuse water services are projected to exceed expenditure for each of the next five fiscal years as indicated in Table 9-20, and indicate a surplus will be available in the Utility Enterprise Fund to provide bonding capacity as shown in Table 9-21.

Table 9-20: Utility Enterprise Fund – Balance Between Revenues and Expenditures (in thousands)

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Total Revenues (*)	$42,170	$43,108	$46,060	$47,367	$48,626	$48,626
Total Operating Expenditures	23,165	24,656	25,821	27,834	28,842	28,967
Current Debt Service	17,024	17,575	18,961	18,961	18,962	18,962
Balance – Net Revenues	1,981	877	1,278	572	822	697
Prior Year Balance	0	1,981	2,858	4,136	4,708	5,530
Transfer from Other Utilities	0	0	0	0	0	0
Net Revenues Available for New Debt Service or Capital Outlays	**$1,981**	**$2,858**	**$4,136**	**$4,708**	**$5,530**	**$6,227**

Note:
(*) Total Revenues are net of Inter-departmental Revenues which reduces the amount show in Table 9-15 by about six percent.

Table 9-21: RCID Bonding Capacity (in thousands)

GENERAL OBLIGATION BONDS	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Net Revenues Available for Debt Service	$13,591	$9,351	$3,9588	$2,777	$2,331	$2,223
2009 Bonding Capacity	**$160,000**					
Additional Annual Debt Service	0	0	0	0	0	0
Balance	13,591					
2010 Bonding Capacity		**$110,000**				
Additional Annual Debt Service		0	0	0	0	0
Balance		9,351				
2011 Bonding Capacity			**$47,000**			
Additional Annual Debt Service			0	0	0	0
Balance			3,958			
2012 Bonding Capacity				**$33,000**		
Additional Annual Debt Service				0	0	0
Balance				2,777		
2013 Bonding Capacity					**$27,000**	
Additional Annual Debt Service					0	0
Balance					2,331	
2014 Bonding Capacity						**$26,000**

UTILITY REVENUE BONDS	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Net Revenues Available for Debt Service	$1,981	$2,858	$4,136	$4,708	$5,530	$6,227
2009 Bonding Capacity	**$23,000**					
Additional Annual Debt Service	0	0	0	0	0	0
Balance	1,981					
2010 Bonding Capacity		**$34,000**				
Additional Annual Debt Service		100	100	100	100	100
Balance		2,758				
2011 Bonding Capacity			**$47,000**			
Additional Annual Debt Service			700	700	700	700
Balance			3,336			
2012 Bonding Capacity				**$46,000**		
Additional Annual Debt Service				1,300	1,300	1,300
Balance				2,608		
2013 Bonding Capacity					**$40,000**	
Additional Annual Debt Service					300	300
Balance					3,430	
2014 Bonding Capacity						**$45,000**

FINANCING PROGRAM

General Fund

The General Fund will continue to be used to finance road and drainage maintenance and to fund non-concurrency capital improvements. As shown in Table 9-22, sufficient bond proceeds are on hand to fund the four roadway projects detailed in Table 9-8: Five Year Schedule of Capital Improvements for Roads. As previously noted the only new capital improvement to the stormwater management facilities needed during the next five fiscal years in order to maintain the adopted level of service standard for drainage will be funded by outside drainage fees on reserve.

Table 9-22: Capital Costs versus Available Revenues (in thousands)

GENERAL REVENUES	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Capital Costs – Roads and Drainage Projects (Table 9-11)	$10,656	$8,439	$900	$0	$0	$0
Currently Available Bond Proceeds	28,569	17,913	9,474	8,574	8,574	8,574
(Net Capital Costs Requiring Funding) or Net Currently Available Bond Proceeds	**$17,913**	**$9,474**	**$8,5743**	**$8,574**	**$8,574**	**$8,574**
Net Revenues Available for Capital Outlay or New Debt Service	14,774	10,996	5,641	4,441	4,004	3,892
Projected Non-Concurrency Capital Outlays	1,183	1,645	1,683	1,664	1,674	1,669
Net Revenues Available for New Debt Service or Capital Outlays	**$13,591**	**$9,351**	**$3,958**	**$2,777**	**$2,331**	**$2.223**
Bonding Capacity	**$160,000**	**$110,000**	**$47,000**	**$33,000**	**$27,000**	**$26,000**

UTILITY REVENUES	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Capital Costs – Potable and Reuse Water, Sanitary Sewer, and Solid Waste (Table 9-11)	$2,801	$920	$5,194	$8,090	$15,590	$3,230
Currently Available Bond Proceeds	8,169	5,368	4,448	0	0	0
(Net Capital Costs Requiring Funding) or Net Currently Available Bond Proceeds	**$5,368**	**$4,448**	**$(746)**	**$(8,836)**	**$(24,426)**	**$(27,656)**
Net Revenues Available for New Debt Service or Capital Outlays	**$1,981**	**$2,858**	**$4,136**	**$4,708**	**$5,530**	**$6,227**
Bonding Capacity	**$23,000**	**$34,000**	**$47,000**	**$46,000**	**$40,000**	**$45,000**

Utility Enterprise Fund

As shown in Table 9-22, sufficient bond proceeds are on hand to fund a portion of the potable and reuse water and sanitary sewer projects detailed in Table 9-9, 9-10, and 9-11: Five Year Schedule of Capital Improvements for Potable and Reuse Water, Sanitary Sewer, and Solid Waste, respectively. Sufficient net revenues are projected to be generated from operations to fund all of the programmed improvements except for the expansion of the wastewater treatment plant and the biosolids / food waste to energy facility. The District anticipates issuing bonds to finance the expansion of the wastewater treatment plant and the biosolids / food waste to energy facility currently under consideration. Sufficient bonding capacity is available to fund all capital costs as indicated in Table 9-22. Historically revenue transfers from the non-concurrency utilities have been used to cover any shortfall in revenues for bonding purposes and will be in the future if revenues fall short.

Conclusion

Table 9-22 indicates that sufficient funds and capacity are available to cover all projected capital costs. The level of service standards established in the Comprehensive Plan are financially feasible.

IMPLEMENTATION

SCHEDULE OF IMPROVEMENTS

Tables 9-7 through 9-11 indicate the schedule of capital improvements for which the RCID has responsibility. (No capital outlays for drainage or solid waste improvements are anticipated during FY 2009 through FY 2013.) In accordance with Rule 9J-5.016(4)(a)(1), the tables indicate the cost, priority, funding source, timing, and function of each project. Implementation of these projects will accommodate growth in areas designated for future development on the Future Land Use Map. All projects are consistent with the Future Land Use Map and with the goals, objectives, and policies of this plan.

CAPITAL IMPROVEMENT UPDATES

The Capital Improvement Program (CIP), the Five-Year Schedule of Capital Improvements, and the Capital Improvement Element (CIE) will be updated each year in response to new projections of costs and revenues, changes in development plans, and emerging capital facilities needs. While the CIP will address all public services and facilities, the Five-Year Schedule of Capital Improvements and the CIE will address only services subject to the concurrency provisions of Rule 9J-5.

The following steps will be followed in the annual update:

Step 1: Capacity and demand projections will be revised for each service.

Step 2: Projections of assessed valuation will be revised based on new development projections.

Step 3: Data on utility cost and revenue projections will be updated for all public services.

Step 4: The list of projects (and their respective priorities) will be updated for all public services.

Step 5: Utility rate increases will be projected for the next five years.

Step 6: The revised list of capital projects will be reviewed to ensure consistency with all appropriate other plan elements.

Step 7: New projects that replace worn out or obsolete facilities will be added to the program as needed.

Step 8: Funds required pursuant to interlocal agreements will be added as needed.

Step 9: The effectiveness of the prior year's capital improvements in maintaining the adopted levels of service will be reviewed.

Step 10: The effect of the plans and programs of the state and federal governments and adjoining local governments will be reviewed.

Step 11: The funds available for debt service will be reviewed.

Step 12: Policies regarding front-end capital outlays versus debt financing of capital costs will be reviewed.

As in the past, facilities that are required to replace deficient facilities will receive first priority for funding, facilities that accommodate growth will be assigned second priority, and facilities that create excess capacity will be assigned the lowest priority.

CONCURRENCY MANAGEMENT SYSTEM

General

The policies of this plan provide, in accordance with state law that certain public facilities and services needed to support development are available at the time the impacts of development occur or a certificate of occupancy is issued. These public facilities and services include roads, potable water, sanitary sewer, solid waste, drainage, and parks and recreation.

In order to implement these policies, the RCID shall conduct a concurrency review of all new development projects, except those that have a vested right to proceed or are specifically exempted below. If the application is deemed concurrent, a Certificate of Concurrency will be issued by the RCID Department of Planning and Development. If the application is deemed to be not concurrent, the applicant will be notified that a Certificate of Concurrency cannot be issued; the applicant will be provided an opportunity to modify the project, mitigate the impacts of the development upon the public services and facilities, or provide the needed capital improvements as set forth in a development agreement. A building permit will not be issued for a development project requiring a concurrency review until a Certificate of Concurrency is issued.

The Concurrency Management System and Land Development Regulations will, in conjunction with the Capital Improvement Element, ensure that development approvals and permits are issued in a manner that will assure that the necessary public facilities will be available to accommodate the impact of development. The RCID has adopted a monitoring system that enables it to determine whether it is adhering to the adopted level of service (LOS) standards and its schedule of capital improvements.

Vested Rights

Development projects that have vested as of the adopted date of the 1991 Comprehensive Plan are not subject to the Concurrency Management System. All of the following must be met in order for a development project to be vested:

- the development project has a final development order dated prior to the adopted date of the 1991 Comprehensive Plan;
- the applicant has expended substantial sums of money or incurred substantial obligations in reliance upon the final development order; and
- construction on the development project has commenced and has continued in good faith.

Exempt Projects

The following development projects are exempt from the Concurrency Management System:

- interior or exterior maintenance, rehabilitation, or replacement of existing facilities or structures, provided the use does not change and the size does not increase;
- relocation of temporary uses;
- wells and septic tanks;
- resurfacing of existing driveways, roads, and parking lots;
- demolitions;
- signs;
- temporary construction trailers;
- fences and walls;
- nature trails constructed entirely in uplands; and
- replacement structures for those that were destroyed, provided the use does not change and the size does not increase.

Standards for Concurrency

General – The RCID Department of Planning and Development, with assistance from other departments, will conduct the concurrency review. A Certificate of Concurrency will be issued only if the proposed development does not lower the LOS for roads, potable water, sanitary sewer, solid waste, drainage, and parks and recreation below the adopted LOS standards.

The concurrency determination will be made by comparing the available capacity of a facility or service with the demand created by the proposed project. Available capacity will be determined by adding together the total excess capacity of existing facilities and the total capacity of any new facilities that meet the previously defined concurrency standards and subtracting any capacity committed through previously approved development orders or previously issued Certificates of Concurrency.

Potable Water, Sanitary Sewer, Solid Waste, and Drainage – A project will be deemed concurrent if the proposed development does not lower the adopted LOS standards and one of the following provisions are met:

- the facilities and services necessary to achieve concurrency are in place at the time a development permit is issued;
- the facilities necessary to achieve concurrency are under construction at the time a development permit is issued;
- the development permit is issued subject to the condition that the facilities and services necessary to achieve concurrency will be in place concurrent with the impacts of development (issuance of a certificate of occupancy for potable water); or
- the public facilities and services necessary to achieve concurrency are guaranteed in an enforceable development agreement to be in place concurrent with the impacts of development (issuance of a certificate of occupancy for potable water).

Parks and Recreation – A project will be deemed concurrent if the proposed development does not lower the adopted LOS standards and if any of the above four standards are met or if either of the following is met:

- the facilities and services necessary to achieve concurrency are the subject of a binding contract, executed at or before the time the development permit is issued, which provided for the commencement of actual construction of the required facilities or the provision of services within one year of the issuance of the development permit; or
- the facilities and services necessary to achieve concurrency are guaranteed in an enforceable development agreement which requires the commencement of actual construction of the facilities or the provision of services within one year of the issuance of the development permit.

Roads – A project will be deemed concurrent only if the traffic impacts of the proposed development do not lower the level of service for any of the concurrency management roadway links identified in the RCID Transportation Concurrency Management System (CMS) Manual below the adopted LOS standards. The made as follows:

- The determination shall be made using the RCID Transportation Concurrency Management System (CMS) roadway network in effect at the time the application is submitted. The CMS roadway network is described in the RCID Transportation Concurrency Management System Manual.
- The CMS roadway network may include any improvements for which construction is scheduled to commence by the third year of the currently adopted RCID Capital Improvement Program and any improvements to be made by other public agencies within three years, provided the construction is included in an interlocal agreement or memorandum of understanding between the RCID and the agency.
- The determination shall evaluate the total traffic impacts of the proposed project, existing development, proposed projects that have a Certificate of Concurrency, and proposed projects that have submitted a complete concurrency application.
- The determination shall use the most recent RCID trip generation rates unless such rates are not available for the specific use(s). If RCID rates are not available, ITE (Institute of Transportation Engineers) trip generation rates will be used.

- Any special distribution, routing, and internal capture factors that differ from those used in the RCID Subarea Model shall not be used unless approved by the RCID.
- The determination shall evaluate the roadway network capacity availability on a link-by-link basis using the most recent capacities for each link of the roadway network, as established by the RCID. If the traffic generated by the project does not exceed the available capacity or lower the adopted level of service standard on any RCID roadway network link, the project is deemed to be concurrent.
- If the traffic generated by the project exceeds the available capacity on any RCID roadway network link, mitigation techniques may be approved by the RCID to correct deficiencies in traffic capacity. If the traffic generated by the project, as mitigated, does not exceed the available capacity or lower the adopted level of service standard on any RCID roadway network link, the project is deemed to be concurrent.
- Projects not concurrent may be found concurrent if mitigation techniques sufficient to correct the deficiency in traffic capacity are approved by the District for implementation. Mitigation techniques may include financial commitments for infrastructure improvements, designation of "constrained" or "backlogged" facilities, and designation of special transportation management areas.

A plan amendment shall be required to eliminate, defer, or delay construction of any facility or service needed to maintain the adopted LOS standard.

Procedures – The applicant is responsible for providing sufficient information to enable the RCID Department of Planning and Engineering to make the concurrency determination. The applicant may request a concurrency determination at any time prior to the issuance of the final development approval. The applicant may request a concurrency determination for all phases or only the initial phase or phases of a multi-phased project; however, a Certificate of Concurrency for the initial phase or phases of a project shall not establish a vested right to continue subsequent phases for which a concurrency determination has not been made.

A Certificate of Concurrency shall remain in effect for a minimum term of thirty six (36) months. As long as both commencement of actual construction of any building structure related to the primary use of the site and continuous activity toward completion of construction occurs during such thirty-six (36) month term, the Certificate of Concurrency shall continue and remain in effect until construction is completed even if construction is not completed within such thirty-six (36) month term. If construction on a project ceases prior to completion and an applicant anticipates recommencing construction during the thirty-six (36) months following the date such construction ceases, an applicant may apply for and obtain an extension of the Certificate of Concurrency through completion of the project, so long as construction actually recommences within thirty-six (36) months following the cessation of construction and thereafter continuous activity towards completion of construction occurs. If at any time thereafter there are subsequent cessations of construction, an applicant may apply for additional extension periods which will be reviewed and granted by the District Administrator on a case by case basis with consideration of extenuating circumstances, such as without limitation, unfavorable economic conditions, changes in regulations, or other mitigating circumstances.

MONITORING AND EVALUATION PROGRAM

The District has implemented a monitoring and evaluation program to ensure that the adopted level of service standards are being maintained and to prescribe corrective measures in the event that they are not. The program consists of the following components.

Roads

Peak-season traffic counts are generally taken annually on District roadways and the level of service on major road segments are determined. The analysis is used to adjust the District circulation plan, capital improvement priorities, and conditions for development approval.

Potable Water

The amount of groundwater pumped is monitored daily and evaluated at least once each peak season. Pumped volumes are compared with pumping and storage capacity to determine whether additional wells, larger pumps, or additional storage tanks are needed. Groundwater levels and quality are monitored to ensure that the supply is safe and sufficient. Water pressure is evaluated at various locations to determine whether the distribution system is sufficiently sized. Consumption patterns for various users are reviewed annually to ensure that the adopted level of service standards for the eight listed land uses [residential, hotel, other resort, support/office, retail/general commercial, restaurant, theme park (general), and theme park (water)] are accurate. Service charges are reviewed annually to ensure that they will sufficiently cover projected operating and debt service costs.

Sanitary Sewer

The amount of wastewater treated is monitored daily and evaluated at least once each peak season. Treated volumes are compared with the capacity of the treatment plant and disposal system to determine the need for additional facilities. Effluent quality also is monitored in accordance with state and federal environmental regulations. Wastewater volumes from various users are reviewed annually to ensure that the adopted level of service standards for the eight listed land uses are accurate. Service charges are reviewed annually to ensure that they will sufficiently cover projected operating and debt service costs.

Solid Waste

The amount of solid waste handled at the transfer station is periodically monitored and evaluated at least once each peak season. The amount handled is compared with the capacity of the transfer station to determine the need for expanded transfer facilities. Solid waste volumes from various users are reviewed annually to ensure that the adopted level of service standards for the eight listed land uses are accurate. Service charges are reviewed annually to ensure that they will sufficiently cover projected operating and debt service costs.

Drainage

Drainage service levels are monitored through periodic modeling of the conditions that would result under storms of varying intensity given the level of existing and planned development in the District. The results are used to adjust, at least annually, capital improvement priorities and conditions for development approval.

ANNUAL EVALUATION OF REVENUE SOURCES

The District evaluates its revenue sources at least annually to determine whether current services for generating revenue are sufficient. This involves a review of the millage rate and the service charges for various utilities.

It is anticipated that the District will continue to rely on its current sources of revenue for capital improvements. Ad valorem taxes, building permit fees, and investment interest will be the primary revenue sources for the General Fund, while utility sales and connection fees will be the primary revenue source for the Utility Enterprise Fund. Use of impact fees or other charges is not anticipated. The District will continue to operate without state or federal funds.

Debt service policies will be evaluated annually. The split between debt financing and front-end capital outlays will be determined by the following factors:

- the availability of net revenues;
- legal constraints;
- the revenue-generating potential of proposed utility projects;
- the urgency of the project and consequences of delay;
- the burden likely to be created by higher millage or utility rates; and
- interest rates and the availability of tax-exempt financing.

Reedy Creek Improvement District
Comprehensive Plan

GLOSSARY

GLOSSARY

cfs	cubic feet per second
CIE	Capital Improvements Element
CIP	Capital Improvements Program
CR	County Route
DCA	Florida Department of Community Affairs
DRI	Development of Regional Impact
EAR	Evaluation and Appraisal Report
EPA	U.S. Environmental Protection Agency
FDEP	Florida Department of Environmental Protection
FDOT	Florida Department of Transportation
FY	Fiscal Year
gpd	gallons per day
HTZ	Housing Target Zone
LOS	Level of Service
mgd	million gallons per day
MSA	Metropolitan Statistical Area
OUATS	Orlando Urban Area Transportation Study
RCES	Reedy Creek Energy Services, Inc.
RCID	Reedy Creek Improvement District
RM/R	Resource Management/Recreation
SFWMD	South Florida Water Management District
SR	State Route
STA	Special Transportation Area
TAZ	Traffic Analysis Zone
USGS	U.S. Geological Survey
WWTP	Wastewater Treatment Plant

The definitions of the following terms are general in nature. More specific definitions are sometimes found in applicable state legislation and regulations. In particular, see Section 163.3164, Florida Statutes, and Section 9J-5.003, Florida Administrative Code.

AASHO Classification

Used to classify soils according to those properties that affect use in highway construction and maintenance. A soil is placed in one of seven basic groups ranging from A-1 through A-7. Group A-1 are gravelly soils of high bearing strength, the best soils for subgrade (foundation). At the other extreme, Group A-7, are clayey soils that have low strength when wet, and they are the poorest soils for subgrade.

Ad Valorem Tax

Property tax.

Affordable Housing

Housing capable of being purchased or rented by a household with very low, low, or moderate income, based on a household's ability to make monthly payments necessary to obtain housing. Housing is considered affordable when a household pays less than 30 percent of its gross monthly income for housing, including utilities.

Agriculture

The cultivation of crops and livestock. Agriculture areas include croplands, pasturelands, orchards, vineyards, nurseries, ornamental horticulture areas, groves, confined feeding operations, specialty farms, and silviculture areas.

Air Pollution

Concentrations of substances found in the atmosphere that exceed naturally occurring quantities and are undesirable or in some way harmful.

Air Quality Index (National Ambient Air Quality Standards)

The prescribed level of pollutants in the outside air that cannot be exceeded legally during a specified time in a specified geographical area.

Alluvial

Soils deposited by stream action.

Ambient

Surrounding on all sides; used to describe measurements of existing conditions with respect to traffic, noise, air, and other environments.

Annex, v.

To incorporate a land area into an existing district or municipality, with a resulting change in the boundaries of the annexing and annexed jurisdictions.

Apartment

(1) One or more rooms of a building used as a place to live, in a building containing at least one other unit used for the same purpose. (2) A separate suite, not owner-occupied, that includes kitchen facilities and is designed for and rented as the home, residence, or sleeping place of one or more persons living as a single housekeeping unit.

Appropriate

An act, condition, or state that is considered suitable.

Aquifer

An underground, water-bearing layer of earth, porous rock, sand, or gravel through which water can seep or be held in natural storage. Aquifers generally hold sufficient water to be used as a water supply.

Archaeological

Relating to the material remains of past human life, culture, or activities.

Area Median Income

Established by the U.S. Department of Housing and Urban Development. In metropolitan areas, the "area median income" is the median income for the metropolitan statistical area. In non-metropolitan areas, the "area median income" is the higher of the county median family income or the statewide non-metropolitan median family income.

Arterial Road

Medium-speed (30 to 40 mph), medium-capacity (10,000 to 35,000 average daily trips) roadway that provides intra-community travel and access to the county-wide highway system. Access to community arterials should be provided at collector roads and local streets, but direct access from parcels, adjacent to existing arterials is common.

Artesian

An aquifer in which water is confined under pressure between layers of impermeable material. Wells tapping into an artesian stratum will flow naturally without the use of pumps. (See "Aquifer.")

Below-market-rate Housing Unit

(1) Any housing unit specifically priced to be sold or rented to low- or moderate-income households for an amount less than the fair market value of the unit. (2) The financing of housing at less than prevailing interest rates.

Biotic Community

A group of living organisms characterized by a distinctive combination of both animal and plant species in a particular habitat.

Blight

A condition of a site, structure, or area that may cause nearby buildings and/or areas to decline in attractiveness and/or utility.

Borrow Pit

An excavated area where material has been dug for use as fill at another location.

Buffer Zone

An area of land separating two distinct land uses that acts to soften or mitigate the effects of one land use on the other.

Building

Any structure used or intended for supporting or sheltering any use or occupancy.

Buildout; Build-out

Development of land to its full potential or theoretical capacity as permitted under current or proposed planning or zoning designations.

Capability Unit

Groupings are made according to the limitations of the soils when used for agriculture, the risk of damage when they are used, and the way they respond to treatment.

Class I Soils

Few limitations.

Class II Soils

Moderate limitations.

Class III Soils

Severe limitations.

Class IV Soils

Very severe limitations.

Class V Soils

Limited to erosion, but have other criteria that limit their use largely to pasture, range, woodland, or wildlife.

Class VI Soils

Severe limitations, generally unsuitable for cultivation and limited largely to pasture, range, woodland, or wildlife.

Class VII Soils

Very severe limitation, etc. Subclass "w" water in or on the soil interferes with plant growth or cultivation.

Subclass "S" Soil

Limited, mainly because it is shallow, droughty, or stony.

Capital Improvement

Physical assets constructed or purchased to provide, improve, or replace a public facility and that are large-scale and high in cost. The cost of a capital improvement is generally non-recurring and may require multi-year financing. Physical assets that have been identified as existing or projected needs in the individual comprehensive plan elements shall be considered capital improvements.

Capital Improvement Program

A program, administered by a city or county government and reviewed by its planning commission, that schedules permanent improvements, usually for a minimum of five years in the future, to fit the projected fiscal capability of the local jurisdiction. The program generally is reviewed annually for conformance to and consistency with the Comprehensive Plan.

Caps

(See "Development Thresholds.")

Carbon Monoxide

A colorless, odorless, highly poisonous gas produced by automobiles and other machines with internal combustion engines that imperfectly burn fossil fuels (such as oil and gas).

Carrying Capacity

The level of land use, human activity, or development for a specific area that can be accommodated permanently without an irreversible change in the quality of air, water, land, or plant and animal habitats. May also refer to the upper limits beyond which the quality of human life, health, welfare, safety, or community character in an area will be impaired. Carrying capacity usually is used to determine the potential of an area to absorb development.

Census

The official decennial enumeration of the population conducted by the federal government.

Channelization

(1) The straightening and/or deepening of a watercourse for purposes of storm-runoff control or ease of navigation. Channelization often includes lining of stream banks with a retaining material, such as concrete. (2) At the intersection of roadways, the directional separation of traffic lanes through the use of curbs or raised islands that limit the paths vehicles may take through the intersection.

Collector Road

Relatively low-speed (25 to 30 mph), relatively low-volume (5,000 to 20,000 average daily trips) street that provides circulation within and between neighborhoods. Collectors usually serve short trips and are intended for collecting trips from local streets and distributing them to the arterial network.

Commercial

The sale, rental, and distribution of products or services.

Community Park

Land with full public access intended to provide recreation opportunities beyond those supplied by neighborhood parks. Community parks are larger in scale than neighborhood parks, but smaller than regional parks.

Compatible

Capable of existing together without conflict or ill effects.

Comprehensive Plan

Any or all local comprehensive plans or elements or portions thereof prepared, adopted, or amended pursuant to the Local Government Comprehensive Planning and Land Development Regulation Act, as amended.

Concurrency

A system in which development occurs when the necessary public facilities and services to maintain the adopted level of service standards are also available.

Cone of Influence

An area around one or more major water wells (the boundary of which is determined by the government agency having specific authority to make such a determination) based on groundwater travel or draw-down depth.

Conservation

Areas designated for the purpose of conserving or protecting natural resources or environmental quality, including areas designated for such purposes as flood control, protection of quality or quantity of groundwater or surface water, floodplain management, fisheries management, or protection of vegetative communities or wildlife habitats.

Consistent

Free from variation or contradiction. Programs in the Comprehensive Plan are to be consistent, not contradictory or preferential. State law requires consistency between a comprehensive plan and implementation measures, such as the Land Development Regulations.

Contract, v.

To reduce the area within a jurisdiction through the deannexation of land.

Criterion, Criteria

Standard(s) upon which a judgment or decision may be based. (See "Standards.")

Dedication

The turning over by an owner or developer of private land for public use and the acceptance of land for such use by the governmental agency having jurisdiction over the public function for which it will be used. Dedications for roads, parks, school sites, or other public uses often are made conditions for approval of a development by a city.

Dedication, In Lieu of

Cash payments that may be required of an owner or developer as a substitute for a dedication of land, usually calculated in dollars per lot, and referred to as in-lieu fees or in-lieu contributions.

Defease

Working toward the termination of the bond.

Density, Control of

A limitation on the occupancy of land. Density can be controlled through zoning in the following ways: use restrictions, minimum lot-size requirements, floor area ratios, land use/intensity ratios, setback and yard requirements, minimum house-size requirements, ratios comparing number and types of housing units with land area, limits on units per acre, and other means. Allowable density often serves as the major distinction among residential districts.

Density, Residential

The number of permanent residential dwelling units per acre of land. Densities specified in the Comprehensive Plan may be expressed in units per gross acre or per net developable acre. (See "Developable Acres, Net.")

Depth to Water Table

Described in terms of the depth to seasonal high limit of the portion of ground wholly saturated with water.

Detention Dam/Basin/Pond

Dams may be classified according to the broad function they serve, such as storage, diversion, or detention. Detention dams are constructed to retard flood runoff and minimize the effects of sudden floods. Detention dams fall into two main types. In one type, the water is temporarily stored and released through an outlet structure at a rate not to exceed the carrying capacity of the channel down stream. Often, basins are planted with grass and used for open space or recreation in periods of dry weather. In the other type, most often called a **Retention Pond**, the water is held as long as possible and may or may not allow for the controlled release of water. In some cases, the water is allowed to seep into the permeable banks or gravel strata in the foundation. This latter type is sometimes called a **Water-Spreading Dam** or **Dike** because its main purpose is to recharge the underground water supply. Detention dams are also constructed to trap sediment; these are often called **Debris Dams**.

Developable Land

Land that is suitable as a location for structures and can be developed free of hazards to, without disruption of, or significant impact on, natural resource areas.

Developer

Any person, including a governmental agency, undertaking any development.

Development

The carrying out of any building activity or mining operation, the making of any material change in the use or appearance of any structure or land, or the dividing of land into three or more parcels.

Development Fee

(See "Impact Fee.")

Development Threshold

An absolute limit on the amount of public service demand that may be generated by new development.

Discourage, v.

To advise or persuade to refrain from.

District

The Reedy Creek Improvement District, unless otherwise clearly indicated.

Diversion

The direction of water in a stream away from its natural course (i.e., as in a diversion that removes water for human use from a stream).

Drainage

Removal of excess surface water or excess water from within the soil by surface or subsurface drains. Also, the rapidity and extent of the removal of water from the soil by run-off and flow through the soil to underground storage areas.

Drainage Basin

An area defined by topographic boundaries that collects stormwater flows from surrounding tributary basins and conveys them to drainage systems, estuarine waters, or the ocean.

Dwelling Unit

A room or group of rooms (including sleeping, eating, cooking, and sanitation facilities, but not more than one kitchen) that constitutes an independent housekeeping unit, occupied or intended for occupancy by one household on a long-term basis.

Easement

Usually the right to use property owned by another for specific purposes or to gain access to another property. For example, utility companies often have easements on the private property of individuals in order to be able to install and maintain utility facilities.

Effluent

Clear overflow that results from sewage treatment processes.

Encourage, v.

To stimulate or foster a particular condition through direct or indirect action by the private sector or government agencies.

Endangered Species

A species of animal or plant is considered endangered when its prospects for survival and reproduction are in immediate jeopardy from one or more causes.

Enhance, v.

To improve existing conditions by increasing the quantity or quality of beneficial uses.

Environment

The physical conditions that exist in the area that will be affected by a proposed project, including land, air, water, mineral, flora, fauna, noise, and objects of historic or aesthetic significance.

Erosion

(1) The loosening and transportation of rock and soil debris by wind, rain, or running water. (2) The gradual wearing away of the upper layers of earth.

Expansive Soils

Soils that swell as they absorb water and shrink as they dry.

Fair Market Rent

The rent, including utility allowances, determined by the United States Department of Housing and Urban Development for purposes of administering the Section 8 Existing Housing Program.

FAR

(See "Floor Area Ratio.")

Family

(1) Two or more persons related by birth, marriage, or adoption [U.S. Bureau of the Census]. (2) An individual or a group of persons living together who constitute a bona fide single-family housekeeping unit in a dwelling unit.

Feasible

Capable of being done, executed, or managed successfully from the standpoint of the physical and/or financial abilities of the implementer(s).

Feasible, Technically

Capable of being implemented because the industrial, mechanical, or application technology exists.

Flood, 100-year

The magnitude of a flood expected to occur on the average every 100 years, based on historical data. The 100-year flood has a 1/100, or 1 percent, chance of occurring in any given year.

Flood Elevation, 100-year

The outer boundary elevation of the flood plain.

Flood Hazard

Water standing above the soil surface for some length of time. In Florida this is most common in depressions or low areas without outlets. Soils near streams that overflow also have a flood hazard.

Flood Plain

The relatively level land area on either side of the banks of a stream regularly subject to flooding. The areas inundated during a 100-year flood or identified by the National Flood Insurance Program as an A zone or V zone on Flood Insurance Rate Maps or Flood Hazard Boundary Maps.

Floodway

The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the "base flood" without cumulatively increasing the water surface elevation more than one foot.

Floor Area Ratio (FAR)

The gross floor area permitted on a site divided by the total net area of the site, expressed in decimals to one or two places. For example, on a site with 10,000 net square feet of land area, a floor area ratio of 1.0 will allow a maximum of 10,000 gross square feet of building floor area to be built. On the same site, an FAR of 1.5 would allow 15,000 square feet of floor area; an FAR of 2.0 would allow 20,000 square feet; and an FAR of 0.5 would allow only 5,000 square feet. Also commonly used in zoning, FARs typically are applied on a parcel-by-parcel basis, as opposed to an average FAR for an entire land use or zoning district.

Freeway

A high-speed, high-capacity, limited-access transportation facility serving regional and county-wide travel. Such roads are free of tolls, as contrasted with "turnpikes" or other "toll roads." Freeways generally are used for long trips between major land use generators. At Level of Service "E," they carry approximately 1,875 vehicles per lane per hour, in both directions. Major streets cross at a different grade level.

Future Land Use Element

A required element of the Comprehensive Plan that uses text and maps to designate the future use or reuse of land within a given jurisdiction's planning area. The Future Land Use Element serves as a guide to the structuring of zoning and subdivision controls, urban renewal and capital improvements programs, and to official decisions regarding the distribution and intensity of development and the location of public facilities and open space.

Gateway

A point along a roadway entering the city at which a motorist gains a sense of having left the environs and of having entered the city.

Geological

Pertaining to rock or solid matter.

Goal

Long-term end toward which programs or activities are ultimately directed.

Groundwater

Water under the earth's surface, often confined to aquifers capable of supplying wells and springs.

Groundwater Recharge

The natural process of infiltration and percolation of rainwater from land areas or streams through permeable soils into water-holding rocks that provide underground storage ("aquifers").

Growth Management

The use by a community of a wide range of techniques in combination to determine the amount, type, and rate of development desired by the community and to channel that growth into designated areas. Growth management policies can be implemented through growth rates, zoning, capital improvement programs, public facilities ordinances, urban limit lines, levels of service standards, and other programs.

Guidelines

General statements of policy direction around which specific details may be later established.

Habitat

The physical location or type of environment in which an organism or biological population lives or occurs.

Handicapped

A person determined to have a mobility impairment or mental disorder expected to be of long or indefinite duration. Many such impairments or disorders are of such a nature that a person's ability to live independently can be improved by appropriate housing conditions.

Hazardous Material

Any substance that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. The term includes, but is not limited to, hazardous substances and hazardous wastes.

High Occupancy Vehicle

Any vehicle other than a driver-only automobile (e.g., a vanpool, a bus, or two or more persons to a car).

Highway

High-speed, high-capacity, limited-access transportation facility serving regional and county-wide travel. Highways may cross at a different grade level.

Historic; Historical

An historic building or site is one that is noteworthy for its significance in local, state, or national history or culture, its architecture or design, or its works of art, memorabilia, or artifacts.

Historic Preservation

The preservation of historically significant structures and neighborhoods until such time as and in order to facilitate, restoration and rehabilitation of the building(s) to a former condition.

Historic Resources

All areas, districts, or sites containing properties listed on the Florida Master Site File, the National Register of Historic Places, or designated by local government as historically, architecturally, or archaeologically significant.

Hotel

A facility in which guest rooms or suites are offered to the general public for lodging with or without meals and for compensation, and where no provision is made for cooking in any individual guest room or suite.

Household

All those persons—related or unrelated—who occupy a single housing unit. (See "Family.")

Housing Unit

The place of permanent or customary abode of a person or family. A housing unit may be a single-family dwelling, a multi-family dwelling, a condominium, a modular home, a mobile home, a cooperative, or any other residential unit. A housing unit has, at least, cooking facilities, a bathroom, and a place to sleep. It also is a dwelling that cannot be moved without substantial damage or unreasonable cost. (See "Dwelling Unit," "Family," and "Household.")

Hydrography

A graphic presentation of the distribution of water upon the earth's surface, soil, and atmosphere.

Hydrologic Group

These groups are used in watershed planning to estimate run-off from rainfall. Dual hydrologic groups are given for wet soils rated D in their neutral condition that can be adequately drained and improved by at least two classes. The letter applies to the drained condition.

Hydrologic Group A (low run-off potential)

Soils that have high infiltration rates.

Hydrologic Group B (moderately low run-off potential)

Soils that have moderate infiltration rates.

Hydrologic Group C (moderately high run-off potential)

Soils that have slow infiltration rates.

Hydrologic Group D (high run-off potential)

Soils having very slow infiltration rates.

Impact

The effect of any direct, man-made actions or indirect repercussions of man-made actions on existing physical, social, or economic conditions.

Impact Fee

A fee, also called a development fee, levied on the developer of a project by a city, county, or other public agency as compensation for otherwise-unmitigated impacts the project will produce.

Impervious Surface

Surface through which water cannot penetrate, such as roof, road, sidewalk, and paved parking lot. The amount of impervious surface increases with development and establishes the need for drainage facilities to carry the increased runoff.

Implementation

Actions, procedures, programs, or techniques that carry out policies.

Improvement
The addition of one or more structure(s) or utility(ies) on a vacant parcel of land.

In Lieu Fee
(See "Dedication, In Lieu of.")

Industrial
The manufacture, assembly, and processing or storage of consumer goods. Industrial is often divided into "heavy industrial" uses (such as construction yards, quarrying, and factories) and "light industrial" uses (such as research and development and less intensive warehousing and manufacturing). Industrial, as used in this plan, refers to uses that exist solely to support the RCID's entertainment and resort activities.

Infill Development
Development of vacant land (usually individual lots or left-over properties) within areas that are already largely developed.

Infrastructure
Public services and facilities, such as sewage-disposal systems, water-supply systems, other utility systems, and roads, necessary to support the development in a given area.

Issues
Important unsettled community matters or problems.

Land
The earth, water, and air above, below, or on the surface, and including any improvements structures customarily regarded as land.

Land Development Regulations
Local zoning, subdivision, building, and other regulations controlling the development of land.

Land Suitability
The ranking of the suitability for development of different lands based on the distribution of natural features and public service systems.

Land Use
Development that is planned for or has occurred on land.

Land Use Classification
A system for classifying and designating the appropriate use of properties.

Landmark
Refers to a building, site, object, structure, or significant tree, having historic, architectural, social, or cultural significance and marked for preservation by the local, state, or federal government.

Landscaping
Plantings—including trees, shrubs, and ground covers—suitably designed, selected, installed, and maintained to permanently enhance a site or roadway.

Lease

A contractual agreement by which an owner of real property (the lessor) gives the right of possession to another (a lessee) for a specified period of time (term) and for a specified consideration (rent).

Leisure Time

Any portion of an individual's time not occupied by employment or used in pursuit of essential activities.

Level of Service (LOS), General

An indicator of the extent or degree of service provided by or proposed to be provided by a facility based on and related to the operational characteristics of the facility. Level of service shall indicate the capacity or unit of demand for each public facility.

Level of Service, Traffic

A scale that measures the amount of traffic a roadway or intersection may be capable of handling. Levels range from A to F, with A representing the highest level of service, as follows:

Level of Service A

This level is freely flowing. While traffic density is low, speed is controlled by the driver's desires, speed limits, and physical roadway conditions. Any turning movements are made easily, and there is little or no restriction in maneuverability.

Level of Service B

This is the level of stable flow; however, operating speeds are beginning to be restricted somewhat by traffic conditions. Drivers still have reasonable freedom, but they may begin to feel somewhat restricted.

Level of Service C

Traffic flow is still stable, but speeds and maneuverability are more closely controlled by higher volumes. Traffic conditions are still tolerable for most drivers and operating speeds are not unsatisfactory.

Level of Service D

This level of service approaches unstable flow. Although operating speeds may still be maintained, delays begin to occur frequently because of the high volumes. Drivers have little freedom to maneuver, and comfort and convenience are low. Conditions can be tolerated for short periods of time.

Level of Service E

Flow is unstable, and there may be momentary stoppages. This level of service describes a roadway that is near or at full capacity. Speeds are slow, and there is very little driver comfort or independence. Accident potential is high.

Level of Service F

This level of service describes forced flow operation at low speeds, where volumes are below capacity. This condition usually results from queues of vehicles backing up from a restriction downstream. Stoppages may occur for long periods of time because of downstream congestion.

Local Planning Agency

The agency designed by a local government to prepare the Comprehensive Plan.

Local Road

A roadway providing service that is of relatively low traffic volume, short average trip length, or minimal through traffic movements, and high-volume land access for abutting properties.

Low-income Household

A household with an annual income usually no greater than 80 percent of the area median family income adjusted by household size, as determined by a survey of incomes conducted by a city or a county, or in the absence of such a survey, based on the latest available eligibility limits

established by the U.S. Department of Housing and Urban Development for the Section 8 Housing Program. (See "Area Median Income.")

Maintain, v.
To keep in an existing state. (See "Preserve, v.")

Major Landowners
Unless otherwise indicated, refers to the Walt Disney Company and its subsidiaries.

Marginally Suitable
Land which is generally unsuitable for development due to environmental constraints, but which could be made suitable through modification of natural conditions (such as wetland fill). Development on such land generally requires mitigation to offset environmental impacts.

Marsh
Any area designated as marsh or swamp on the largest scale United States Geologic Survey topographic map published most recently. A marsh usually is an area periodically or permanently covered with shallow water, either fresh or saline.

May
That which is permissible.

Median Strip
The dividing area, either paved or landscaped, between opposing lanes of traffic on a roadway.

Metropolitan
Of, relating to, or characteristic of a large, important city.

Mill, n.
A money of account equal to 1/10 cent.

Millage
A rate (as of taxation) expressed in mills per dollar.

Minerals
Solid minerals, including clay, phosphate rock, lime, shells (excluding live shellfish), sand, heavy minerals, and any rare earths that are found in the soils or waters of the state.

Minimize, v.
To reduce or lessen, but not necessarily to eliminate.

Mining
The act or process of extracting resources, such as coal, oil, or minerals, from the earth.

Mitigate, v.
To ameliorate, alleviate, or avoid to the extent reasonably feasible.

Mixed-use
Properties on which various uses, such as office, commercial, institutional, and residential, are combined in a single building or on a single site in an integrated development project with significant functional interrelationships and a coherent physical design. A "single site" may include contiguous properties.

Mobile or Manufactured Home

A structure, transportable in one or more sections, built on a permanent chassis and designed to be used as a dwelling with or without a permanent foundation when connected to the required utilities, and includes the plumbing, heating, air conditioning, and electrical systems contained therein. If fabricated after June 15, 1976, each section bears a U.S. Department of Housing and Urban Development label certifying that it is built in compliance with the federal Manufactured Home Construction and Safety Standards.

Moderate-income Household

A household with an annual income between the lower income eligibility limits and 120 percent of the area median family income adjusted by household size, usually as established by the U.S. Department of Housing and Urban Development for the Section 8 Housing Program. (See "Area Median Income" and "Low-income Household.")

Motel

A facility in which guest rooms or suites are offered to the general public for lodging with or without meals and for compensation. Quite often, provision is made for cooking in individual guest rooms or suites. Motels generally provide guest parking in proximity to the guest rooms. (See "Hotel.")

Must

That which is mandatory.

National Historic Preservation Act

A 1966 federal law that established a National Register of Historic Places and the Advisory Council on Historic Preservation, and that authorized grants-in-aid for preserving historic properties.

National Register of Historic Places

The official list, established by the National Historic Preservation Act, of sites, districts, buildings, structures, and objects significant in the nation's history or whose artistic or architectural value is unique.

Natural State

The condition existing prior to development.

Necessary

Essential or required.

Need

A condition requiring supply or relief.

Neighborhood Park

City-owned land intended to serve the recreation needs of people living or working within one-half mile radius of the park.

Nitrification/Dentrification

The addition or subtraction of nitrogen.

Nitrogen Oxide(s)

A reddish brown gas that is a byproduct of combustion and ozone formation processes. Often referred to as NO_X, this gas gives smog its "dirty air" appearance.

Noise

Any sound that is undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise annoying. Noise, simply, is "unwanted sound."

Non-attainment

The condition of not achieving a desired or required level of performance. Frequently used in reference to air quality.

Objective

A specific, measurable, intermediate end that is achievable and marks progress toward a goal. Usually an objective requires some sense of time or quantity.

Open Space

(1) In the general context, open space is defined as all land and water not covered by buildings, support facilities, or pavement used for the purposes of (a) the preservation of natural resources, (b) the managed production of resources, (c) outdoor recreation, or (d) public health and safety. (2) For the specific purposes of this Comprehensive Plan, open space is defined as all area within the Resource Management/Recreation, Conservation, and Water Future Land Use Map categories, as well as golf course fairways, and “public” land on the annexed land commonly referred to as the “Fletcher” property.

Open Space, Functional

Improved sites in a development that still serve an open space function. Functional open space includes golf courses, circulation and utility corridors, landscaping, and land use buffers.

Ordinance

A law or regulation set forth and adopted by a governmental authority.

Outdoor Recreation Use

A privately or publicly owned or operated use providing facilities for outdoor recreation activities.

Outfall

The outlet of a body of water.

Parcel

Any quantity of land capable of being described with such definiteness that its location and boundaries may be established, that is designated by its owner or developer as land to be used or developed as a unit or that has been used or developed as a unit.

Parking Area, Public

An open area, excluding a street or other public way, used for the parking of automobiles and available to the public, whether for free or for compensation.

Parks

Open space lands, the primary purpose of which is recreation. (See "Open Space Land," "Community Park," and "Neighborhood Park.")

Peak Hour/Peak Period

For any given roadway, a daily period during which traffic volume is highest, usually occurring in the morning and evening commute periods. Where "F" Levels of Service are encountered, the "peak hour" may stretch into a "peak period" of several hours' duration.

Performance Standards

Zoning or land development regulations that permit uses based on a particular set of standards of operation rather than on particular type of use.

Person

An individual, corporation, governmental agency, business trust, estate, trust, partnership, association, two or more persons having a joint or common interest, or any other legal entity.

pH

Soil reaction that is the degree of acidity or alkalinity of a soil. A soil that tests to pH 7.0 is neutral.

Below 4.5	Extremely acidic
4.5 to 5.0	Very strongly acidic
5.1 to 5.5	Strongly acidic
5.6 to 6.0	Medium acidic
6.1 to 6.5	Slightly acidic
6.6 to 7.5	Neutral
7.6 to 7.8	Mildly alkaline
7.9 to 8.4	Moderately alkaline
8.5 to 9.0	Strongly alkaline

Plan

The RCID Comprehensive Plan, unless otherwise clearly indicated.

Plan of Reclamation

A system of engineering designs for reclaiming land from inundated water areas through the interconnection of artificial and natural conveyance systems.

Policy, Policies

The techniques, programs, and activities conducted to achieve an identified objective.

Pollutant

Any introduced gas, liquid, or solid that makes a resource unfit for its normal or usual purpose.

Pollution

The presence in the outdoor atmosphere, ground, or water of any substances, contaminants, noise, or unnatural alteration of the chemical, physical, biological, or radiological integrity of air or water, in quantities or at levels that are or may be potentially harmful or injurious to human health or welfare, animal or plant life, or property, or unreasonably interfere with the enjoyment of life or property.

Pollution, Non-Point Source

Sources for pollution that are not directly definable and usually cover broad areas of land, such as agricultural land with fertilizers that are carried from the land by runoff, or automobiles.

Pollution, Point Source

Any source of water pollution that constitutes a discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture.

Population, Day Visitor

All persons who visit theme park attractions in the District but do not stay overnight in the District.

Population, Overnight Guest
(See "Population, Seasonal.")

Population, Permanent
All persons permanently residing within the boundaries of a jurisdiction. Counted in the same manner used by the U.S. Bureau of Census in the category of total population. Permanent population does not include seasonal population.

Population, Seasonal
Population categorized as (1) tourist or overnight guest—persons who stay one or more days and less than six months, or (2) temporary—persons who occupy apartments for less than one year. Day visitors are not considered seasonal population.

Potentiometric Level
The elevation in a well to which water is naturally drawn.

Preserve, n.
An area in which beneficial uses in their present condition are protected; for example, a nature preserve or an agricultural preserve. (See "Protect.")

Preserve, v.
To keep safe from destruction or decay; to maintain or keep intact. (See "Maintain.")

Primary Employer
Unless otherwise indicated, refers to the Walt Disney Corporation and its subsidiaries.

Protect, v.
To maintain and preserve beneficial uses in their present condition as nearly as possible. (See "Enhance.")

Public and Quasi-public Facilities
Institutional, academic, governmental and community service uses, either publicly owned or operated by non-profit organizations.

Rare, Threatened, or Endangered Species
A species of animal or plant listed in Title 50, Code of Federal Regulations, Section 17.11 or Section 17.2, pursuant to the Federal Endangered Species Act designating species as rare, threatened, or endangered.

Recognize, v.
To officially (or by official action) identify or perceive a given situation.

Recreation
The variety of activities with which people elect to occupy their leisure time.

Recreation, Entertainment/Cultural
Includes entertainment, cultural, educational, and creative or aesthetic leisure activities.

Recreation, Physical
Requires physical effort as the major experience of the activity.

Recreation, Resource Related
Requires use of a natural resource, such as water, trees, scenery, or wildlife, to provide the setting or focus for an activity.

Recycle, v.
The process of extraction and reuse of materials from waste products.

Redevelop, v.
To demolish existing buildings, or to increase the overall floor area existing on a property; or both, irrespective of whether a change occurs in land use.

Regional
Pertaining to activities or economies at a scale greater than that of a single jurisdiction and affecting a broad, homogeneous area.

Regional Park
A park typically 150 to 500 acres in size, focusing on activities and natural features not included in most other types of parks and often based on a specific scenic or recreational opportunity.

Rehabilitation
The repair, preservation, and/or improvement of substandard housing.

Residential
Land designated in a Comprehensive Plan for buildings consisting only of dwelling units. May be vacant or unimproved. (See "Dwelling Unit.")

Residential, Multi-Family
Usually three or more dwelling units on a single site, which may be in the same or separate buildings.

Residential, Single-family
A single dwelling unit on a building site.

Restore, v.
To renew, rebuild, or reconstruct to a former state.

Restrict, v.
To check, bound, or decrease the range, scope, or incidence of a particular condition.

Retention Basin/Retention Pond
(See "Detention Basin/Dam/Pond.")

Return Frequency
The average interval of time within which a storm will not be equaled or exceeded.

Reverse Osmosis
The flow of fresh water through a semi-permeable membrane when pressure is applied to a solution (such as seawater) on one side of the membrane.

Right-of-way
A strip of land occupied or intended to be occupied by certain transportation and public use facilities, such as roadways, railroads, and utility lines.

Runoff

The portion of rainwater that falls upon the land and is not absorbed or retained, but flows from the point of contact into natural or artificial conveyance and/or collection systems.

Sanitary Sewer

A system of subterranean conduits that carries refuse liquids or waste matter to a plant where the sewage is treated, as contrasted with storm drainage systems (which carry surface water) and septic tanks or leech fields (which hold refuse liquids and waste matter on-site). (See "Septic System.")

Septic System

A sewage-treatment system that includes a settling tank through which liquid sewage flows and in which solid sewage settles and is decomposed by bacteria in the absence of oxygen. Septic systems are often used for individual-home waste disposal where an urban sewer system is not available. (See "Sanitary Sewer.")

Shall

That which is obligatory or necessary.

Should

Signifies a directive to be honored if at all possible.

Shrink/Swell Potential

The relative change in volume to be expected of soil material with changes in moisture content. Shrinking and swelling of soils cause damage to building foundations, roads, and other structures. A high shrink-swell potential indicates a hazard.

Sign

Any representation (written or pictorial) used to convey information or to identify, announce, or otherwise direct attention to a business, profession, commodity, service, or entertainment and placed on, suspended from, or in any way attached to any structure, vehicle, or feature of the natural or built landscape.

Significant Effect

A beneficial or detrimental impact on the environment. May include, but is not limited to, significant changes in an area's air, water, and land resources.

Siltation

(1) The accumulating deposition of eroded material. (2) The gradual filling in of streams and other bodies of water with sand, silt, and clay.

Site

A parcel of land used or intended for one use or a group of uses and having frontage on a public or an approved private street. A lot. (See "Lot.")

Slope

Land gradient described as the vertical rise divided by the horizontal run and expressed in percent.

Sludge

Precipitated solid matter produced from sewage treatment processes.

Soil

The unconsolidated material on the immediate surface of the earth created by natural forces that serves as a natural medium for growing land plants.

Soil Drainage

The frequency and duration of the period when soil is free of saturation. In well-drained soils, the water is removed readily but not rapidly; in poorly drained soils, the root zone is waterlogged for long periods and the roots cannot get enough oxygen; and in excessively drained soils, the water is removed so completely that most crop plants suffer from lack of water. Excessively drained soils are prime recharge areas, whereas poorly drained soils are poor recharge areas.

Soil Limitations

The capabilities and limitations of soils in their natural state to support a variety of specific uses:

Slight

Favorable conditions with minor limitations that can be easily overcome or modified by planning and design.

Moderate

Favorable conditions with minor limitations that can be easily overcome by careful planning and design or by special maintenance.

Severe

Unfavorable conditions that are difficult to correct or overcome and require major soil reclamation or special design.

Very Severe

Highly unfavorable conditions that are not only the most difficult to overcome, but also are the most costly to correct. These soil limitations are intended for use as a planning guide for selecting desirable sites or corridors and as a basis for further investigations and in no way eliminate the need for on-site detailed studies and testings involved in the planning, design, and construction of a specific project.

Solid Waste

General category that includes organic wastes, paper products, metals, glass, plastics, cloth, brick, rock, soil, leather, rubber, yard wastes, agricultural wastes, and wood.

Standards

(1) A rule or measure establishing a level of quality or quantity that must be complied with or satisfied. Examples of standards might include the number of acres of park land per 1,000 population that the community will attempt to acquire and improve, or the "traffic Level of Service" that the plan hopes to attain. (2) Requirements in a land development regulation that govern building and development, as distinguished from use restrictions; for example, site-design regulations, such as lot area, height limit, frontage, landscaping, and floor area ratio.

Storm Duration

The length of a given storm that, when joined to the return frequency, provides a standard that may be used for design purposes.

Storm Runoff

Surplus surface water generated by rainfall that does not seep into the earth but flows overland to flowing or stagnant bodies of water.

Stormwater Conveyance System

Any artificial or natural system that provides for controlled flow of stormwater, such as rivulet, swale, ditch, canal, creek, stream, or river.

Streets, Local

(See "Streets, Minor.")

Streets, Major

The transportation network that includes a hierarchy of freeways, arterials, and collectors to service through traffic.

Streets, Minor

Local streets whose primary intended purpose is to provide access to fronting properties.

Streets, Through

Streets that extend continuously between other major streets in the community.

Structure

Anything constructed or erected that requires location on the ground (excluding swimming pools, fences, and walls used as fences).

Subsidize

To assist by payment of a sum of money or by the granting of terms or favors that reduce the need for monetary expenditures. Housing subsidies may take the forms of mortgage interest deductions or tax credits from federal and/or state income taxes, sale or lease at less than market value of land to be used for the construction of housing, payments to supplement a minimum affordable rent, etc.

Substandard Housing

Residential dwellings that, because of their physical condition, do not provide safe and sanitary housing.

Substantial

Considerable in importance, value, degree, or amount.

Theme Park, Major

A theme park that is designed for multiple-day visits. The exhibitions and rides are extensive and normally require more than one day to experience.

Theme Park, Minor

A theme park that is designed for single-day or partial-day visits. Visitors are expected to spend shorter amounts of time than they would at a major theme park.

Third Party Contractor

An employee of any company or entity other than the Walt Disney Company or its subsidiaries located within RCID boundaries, including independent contractors.

Topography

Configuration of a surface, including its relief and the position of natural and built features.

Tourism

The business of providing services for persons traveling for pleasure. Tourism contributes to the vitality of the community by providing revenue to local business.

Traffic Model

A mathematical representation of traffic movement within an area or region based on observed relationships between the kind and intensity of development in specific areas. Many traffic models operate on the theory that trips are produced by persons living in residential areas and are attracted by various non-residential land uses. (See "Trip.")

Transit

The conveyance of persons or goods from one place to another by means of a local or regional public transportation system.

Transit, Public

A system of regularly scheduled buses or trains available to the public on a fee-per-ride basis. Also called "Mass Transit."

Transit-dependent

Refers to persons unable to operate automobiles or other motorized vehicles, or those who do not own motorized vehicles. Transit-dependent citizens must rely on transit, para-transit, or owners of private vehicles for transportation. Transit-dependent citizens include the young, the handicapped, the elderly, the poor, and those with prior violations in motor vehicle laws.

Tree Crown Density

Density when seen from above, looking down, and the ratio of surface covered by the trees' crown rather than the surface covered by other shrubs or bushes.

Tributary Areas

Adjacent land areas that contribute runoff to a receiving drainage basin.

Trip

A one-way journey that proceeds from an origin to a destination via a single mode of transportation; the smallest unit of movement considered in transportation studies. Each trip has one "production end" (or origin—often from home, but not always), and one "attraction end" (destination). (See "Traffic Model.")

Trip Generation

The dynamics that account for people making trips in automobiles or by means of public transportation. Trip generation is the basis for estimating the level of use for a transportation system and the impact of additional development or transportation facilities on an existing, local transportation system. Trip generations of households are correlated with destinations that attract household members for specific purposes.

Undevelopable

Specific areas where topographic, geologic, and/or surface soil conditions indicate a significant danger to future occupants and a liability to the governing jurisdiction.

Undue

Improper or more than necessary.

Urban Sprawl

Scattered, untimely, poorly planned urban development that occurs in urban fringe and rural areas. It manifests itself in leapfrog development; ribbon or strip development; or large expanses of low-density, single-dimensional development.

Use

The purpose for which a lot or structure is or may be leased, occupied, maintained, arranged, designed, intended, constructed, erected, moved, altered, and/or enlarged in accordance with the Land Development Regulations and Comprehensive Plan Future Land Use Designations.

Use Permit

The discretionary and conditional review of an activity, function, or operation on a site or in a building or facility.

Vacant

Lands or buildings that are not actively used for any purpose.

Variances

A departure from any provision of the Land Development Regulations for a specific parcel, without changing the regulations or the underlying designation of the parcel.

Vegetative Communities

Ecological communities, such as coastal strands, oak hammocks, and cypress swamps, that are classified based on the presence of certain soils, vegetation, and animals.

Very-Low-income Household

A household with an annual income usually no greater than 50 percent of the area median family income adjusted by household size, as determined by a survey of incomes conducted by a city or a county, or in the absence of such a survey, based on the latest available eligibility limits established by the U.S. Department of Housing and Urban Development for the Section 8 Housing Program. (See "Area Median Income.")

Volume-to-Capacity Ratio

A measure of the operating capacity of a roadway or intersection, in terms of the number of vehicles passing through, divided by the number of vehicles that theoretically could pass through when the roadway or intersection is operating at its designed capacity; abbreviated as "v/c." At a v/c ratio of 1.0, the roadway or intersection is operating at capacity. If the ratio is less than 1.0, the traffic facility has additional capacity. Although ratios slightly greater than 1.0 are possible, it is more likely that the peak hour will elongate into a "peak period." (See "Peak Hour/Peak Period" and "Level of Service, Traffic.")

Wastewater Irrigation

The process by which wastewater that has undergone primary treatment is used to irrigate land.

Water Control Structures

An artificially created feature for impeding the natural flow of water, the design of which permits the retention, detention, or release of water during wet and dry seasons.

Watershed

The total area above a given point on a watercourse that contributes water to its flow; the entire region drained by a waterway or watercourse that drains into a lake or reservoir.

Waterway

(See "Watercourse.")

Weir

A dam in a stream to raise its water level or direct its flow.

Wetlands

Transitional areas between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. Under a "unified" methodology now used by all federal agencies, wetlands are defined as "those areas meeting certain criteria for hydrology, vegetation, and soils."

Wildlife Refuge

An area maintained in a natural state for the preservation of both animal and plant life.

Reedy Creek Improvement District
Comprehensive Plan

MONITORING AND EVALUATION

PURPOSE

One of the basic tenets of the Growth Management Act is that the comprehensive plan be continuously monitored and evaluated to ensure that it reflects current conditions as accurately as possible. The monitoring function, in particular, must be continuous to ensure that public facilities are available concurrent with the impacts of new development. At a minimum, the evaluation function must occur every five years after adoption of the Comprehensive Plan.

The District's monitoring and evaluation procedures are described below. The procedures consist of three major parts:

- annual capital improvement program updates and evaluations;
- concurrency management monitoring; and
- five-year/mid-term evaluation and appraisal.

ANNUAL CAPITAL IMPROVEMENT PROGRAM UPDATES AND EVALUATIONS

This category includes updating of the capital improvement program, the capital improvement program monitoring and evaluation program, and the annual evaluation of revenue sources. These components are further described in the Capital Improvements Element.

CONCURRENCY MANAGEMENT MONITORING

The District's Land Development Regulations include criteria pertaining to traffic, water, wastewater, solid waste, drainage, and parks to determine whether a proposed development is subject to concurrency review. Applicants subject to concurrency review must submit detailed information on the service demands associated with the proposed project. A Certificate of Concurrency is issued if an application is deemed concurrent. In the event a project is found to be not concurrent, the applicant is provided with an opportunity to modify the project, mitigate the impacts, or provide the needed capital improvements as provided in a development agreement.

The concurrency determination is made by comparing the available capacity of a facility or service to the demand created by a proposed project. Available capacity is determined by adding together the excess capacity of existing facilities and the capacity of any new facilities that meet concurrency standards, and subtracting any capacity committed to vested projects and projects previously issued Certificates of Concurrency. An application is deemed concurrent only when level of service standards are not violated. Facilities in each service category are monitored to determine the available excess and committed capacity at any given time.

FIVE-YEAR EVALUATION AND APPRAISALS

An evaluation and appraisal will be prepared on a five-year/mid-term basis, with adoption of once every seven years. Section 163.3191, Florida Statutes, identifies the requirements for an EAR. These requirements are summarized below:

Contents

The EAR must present an assessment and evaluation of the successes and failures of the plan, and contain appropriate findings and recommendations related to the following:

- Population growth and changes in land area, including annexation, since the adoption of the original plan or the most recent update amendments;
- The extent of vacant and developable land;
- The financial feasibility of implementing the comprehensive plan and of providing needed infrastructure to achieve and maintain adopted level-of-service standards and sustain concurrency management systems through the capital improvements element, as well as the ability to address infrastructure backlogs and meet the demands of growth on public services and facilities;
- The location of existing development in relation to the location of development as anticipated in the original plan, or in the plan as amended by the most recent evaluation and appraisal report update amendments, such as within areas designated for urban growth;
- An identification of the major issues for the District and, where pertinent, the potential social, economic, and environmental impacts;
- An assessment of whether the plan objectives within each element, as they relate to major issues, have been achieved. The report shall include, as appropriate, an identification as to whether unforeseen or unanticipated changes in circumstances have resulted in problems or opportunities with respect to major issues identified in each element and the social, economic, and environmental impacts of the issue;
- A brief assessment of successes and shortcomings related to each element of the plan;
- The identification of any actions or corrective measures, including whether plan amendments are anticipated to address the major issues identified and analyzed in the report. Such identification shall include, as appropriate, new population projections, new revised planning timeframes, a revised future conditions map or map series, an updated capital improvements element, and any new and revised goals, objectives, and policies for major issues identified within each element;
- The extent to which the District has been successful in identifying alternative water supply projects and traditional water supply projects, including conservation and reuse, necessary to meet the water needs identified in s. 373.0361(2)(a) within the District's jurisdiction. The report must evaluate the degree to which the District has implemented the work plan for building public, private, and regional water supply facilities, including development of alternative water supplies identified in the element as necessary to serve existing and new development;
- An assessment of the extent to which changes are needed to develop a common methodology for measuring impacts on transportation facilities for the purposes of implementing its concurrency management system in coordination with the municipalities and counties, as appropriate pursuant to s. 163.3180(10);
- Relevant changes to the state comprehensive plan, the requirements of this part, the minimum criteria contained in chapter 9J-5, Florida Administrative Code, and the appropriate strategic

regional policy plan since the adoption of the original plan or the most recent evaluation and appraisal report update amendments; and

- A summary of the public participation program and activities undertaken by the local government in preparing the report.

Reedy Creek Improvement District
Comprehensive Plan

APPENDICES

A. POPULATION PROJECTIONS FOR THE RCID
B. TRANSPORTATION SERVICE FLOW RATES
C. AFFORDABLE HOUSING STUDY UPDATE
D. THE RCID FLORA AND FAUNA INVENTORY

Reedy Creek Improvement District
Comprehensive Plan

APPENDIX A

POPULATION PROJECTIONS FOR THE RCID

POPULATION PROJECTIONS FOR RCID

INTRODUCTION

This appendix documents 2009, 2015, and 2020 population characteristics for the Reedy Creek Improvement District (RCID). The projections are presented in accordance with Rule 9J-5.005(2)(d), General Requirements for Comprehensive Plan Data.

Because projections are not provided for the RCID, this appendix has been prepared to document the locally developed functional or daytime population projections methodology. Daytime or "functional" population refers to the total number of persons that are present in the District during a typical daytime period. The figure includes permanent residents, resort guests, theme park visitors, and employees. Estimates of functional population are best expressed as a range, since the figure fluctuates from day to day based on variables such as season, weather, and special events. Precise estimates of the daytime population are difficult to develop because many resort guests are potentially double counted as theme park visitors.

The appendix is divided into three parts, corresponding to the three points in time identified above. In each case, figures are presented for the District's permanent residential population, overnight guest population, theme park guest population, employee population, and a range for total population.

Permanent Population

The permanent population includes all persons residing within the District's boundaries in 17 manufactured homes. The homes located are in two licensed mobile home parks, one in Lake Buena Vista off of Buena Vista Drive, and the other in Bay Lake off of Reams Road. The Lake Buena Vista complex has 9 units, and the Bay Lake complex has 8 units. The permanent population is not projected to change from its current 43 residents during the 2015 and 2020 planning periods. The development maximums in the Future Land Use Element do not provide for any increase in the number of residential units.

Overnight Guest Population

Overnight guests are defined as visitors who stay within District boundaries for more than one day but less than six months. All projections are stated in terms of an average day and are based on historical occupancy rates applied to the total number of hotel keys, interval ownership keys, campground cabins, and camp sites currently existing and included in the development maximums in the Future Land Use Element for the 2015 and 2020 planning periods.

Theme Park Visitor Population

The theme park visitor population is based on estimates by Themed Entertainment Association / Economics Research Associates' (TEA/ERA). Theme park attendance provides an indicator of the number of day visitors which is not mutually exclusive of overnight guests. On any given day some of the overnight guests may visit the theme parks and others may not. Some guests may visit multiple theme parks in a single day resulting in double counting.

Employee Population

There are more than 3,000 different jobs available within the District including jobs in local government; resorts and attractions; retail, dining, and entertainment establishments; environmental, financial, and transportation services; utilities, healthcare, construction, etc. Employment ranges from full-time to part-time to seasonal.

Total Population

The District's average daily population fall somewhere between the sum of the permanent population plus the theme park visitor population plus the employee population (this assumes all overnight guests visit the theme parks) and the sum of all four categories (this presumes none of the overnight guests visit the theme parks). Obviously the District's average daily population falls between these two extremes.

Summary

The RCID had a permanent population of 43 residents on January 1, 2009. This figure is very small when compared to the total number of persons "residing in" or visiting the District on a daily basis. To properly measure current and future needs for services and facilities, projections quantify the transient population of the RCID as well as its permanent population as summarized in Table A-1. The projections are worse case and assume all of the development permitted in Table 2-1 in the Future Land Use Element takes place.

Table A-1: Summary of the Population Projections for the RCID

Year	Permanent Population	Overnight Guest Population	Theme Park Visitor Population	Employee Population	Total Population Range	
					Low	High
2009	43	85,331	135,790	42,857	**178,690**	**264,021**
2015	43	114,054	145,703	49,240	**194,987**	**309,041**
2020	43	142,620	153,136	61,689	**214,868**	**357,488**

2009 BASE YEAR POPULATION

Permanent Population

There were 43 permanent residents in the district on January 1, 2009.

Overnight Guest Population

Type	Total Number of Keys	Average Guests/Room	Average Occupancy	Overnight Guest Population
Hotels	28,267	2.8	87%	68,858
Interval Ownership Units	3,785	3.8	88%	12,657
Campgrounds	1,223	3.9	80%	3,816
Total				**85,331**

Employee Population

Approximately 71 percent or 42,857 of the 60,000 currently employed within the District work each day.

Theme Park Visitor Population

The estimated number of total visits is based on estimates of Themed Entertainment Association / Economics Research Associates' (TEA/ERA) Attraction Attendance Report for 2008. Disney reported a three percent decline in overall theme park attendance in Orlando in its FY 2009 annual report.

Theme Park	2008 Estimate	2009 Growth (Decline)	Theme Park Visitor Population
Magic Kingdom	46,748	(3)%	45,346
Epcot	29,959	(3)%	29,060
Disney's Hollywood Studios	26,323	(3)%	25,534
Disney's Animal Kingdom	26,137	(3)%	25,353
Typhoon Lagoon Water Park	5,641	(3)%	5,472
Blizzard Beach Water Park	5,181	(3)%	5,025
Total	**139,989**	**(3)%**	**135,789**

Total Population

The District's average daily population falls between the sum of the permanent population plus the theme park visitor population plus the employee population (low range) and the sum of all four categories (high range). Obviously the District's average daily population falls between these two extremes.

Year	Permanent Population	Overnight Guest Population	Theme Park Visitor Population	Employee Population	Total Population Range	
					Low	High
2009	43	85,331	135,790	42,857	**178,690**	**264,021**

2015 POPULATION PROJECTIONS

Permanent Population

The permanent population within the District is projected to remain unchanged at 43.

Overnight Guest Population

The projected 2015 overnight guest population assumes all of the hotel keys (6,300) and interval ownership keys (4,000) provided for in Table 2-1 in the Future Land Use Element are built and that all currently operating resorts remain. The same historical average occupancy and guests per room that were used for 2009 were used for 2015.

Type	Total Number of Keys	Average Guests/Room	Average Occupancy	Overnight Guest Population
Hotels	34,567	2.8	87%	84,205
Interval Ownership Units	7,785	3.8	88%	26,033
Campgrounds	1,223	3.9	80%	3,816
Total				**114,054**

Employee Population

As with the projection for the overnight guest population, the projected employee population is based on the development provided for in Table 2-1 in the Future Land Use Element.

Type	Total Number of Keys	Average Employees/ Room	Total Employees	Daily Employee 5/7	Employee Population
2009 Employees Population			60,000	71%	42,857
Hotels	6,300	0.45	2,855	71%	2,039
Interval Ownership Units	4,000	0.54	2,160	71%	1,543
Golf Courses			0	71%	0
Office			80	71%	57
Retail/Restaurant			2,189	71%	1,564
Major Theme Park			309	71%	220
Minor Theme Park			1,344	71%	960
Total					**49,240**

Theme Park Visitor Population

Theme park population for 2015 assumes attendance remains flat for 2010 and 2011 and then increases one percent annually for 2012 through 2015 for all theme parks with the exception of Magic Kingdom. Magic Kingdom's attendance is projected to remain flat for 2010 and 2011, to increase three percent annually in 2013 and 2014 with the opening of the Fantasyland enhancements, and to increase one percent annually in 2012 and 2015.

Theme Park	2008 Estimate	Growth Rate 2010 thru 2015	Theme Park Visitor Population
Magic Kingdom	45,346	8%	49,075
Epcot	29,060	4%	30,240
Disney's Hollywood Studios	25,534	4%	26,571
Disney's Animal Kingdom	25,353	4%	26382
Typhoon Lagoon Water Park	5,472	4%	5,694
Blizzard Beach Water Park	5,025	4%	5,229
New Minor Theme Park	0	100%	2,513
Total	**135,790**	**7%**	**145,703**

Total Population

The District's average daily population falls between the sum of the permanent population plus the theme park visitor population plus the employee population (low range) and the sum of all four categories (high range). Obviously the District's average daily population falls between these two extremes. The District's total average daily population is projected to increases between 16,297 (9 percent) and 45,019 (17 percent) through 2015.

Year	Permanent Population	Overnight Guest Population	Theme Park Visitor Population	Employee Population	Total Population Range	
					Low	High
2015	43	114,054	145,703	49,240	**194,987**	**309,041**

2020 POPULATION PROJECTIONS

Permanent Population

The permanent population within the District is projected to remain unchanged at 43.

Overnight Guest Population

The projected 2018 overnight guest population assumes all of the hotel keys (5,000) and interval ownership keys (4,900) provided for in Table 2-1 in the Future Land Use Element are built and that all currently operating resorts remain. The same historical average occupancy and guests per room that were used for 2009 and 2015 were used for 2020.

Type	Total Number of Keys	Average Guests/Room	Average Occupancy	Overnight Guest Population
Hotels	39,567	2.8	87%	96,385
Interval Ownership Units	7,785	3.8	88%	42,419
Campgrounds	1,223	3.9	80%	3,816
Total				**142,602**

Employee Population

As with the projection for the overnight guest population, the projected employee population is based on the development provided for in Table 2-1 in the Future Land Use Element.

Type	Total Number of Keys	Average Employees/ Room	Total Employees	Daily Employee 5/7	Employee Population
2015 Employee Population			68,936	71%	49,240
Hotels	5,000	0.57	2,850	71%	2,036
Interval Ownership Units	4,900	0.54	2,646	71%	1,890
Golf Courses			33	71%	24
Office			40	71%	29
Retail/Restaurant			5,485	71%	3,918
Major Theme Park			5,013	71%	3,594
Minor Theme Park			1,344	71%	960
Total					**61,689**

Theme Park Visitor Population

Theme park population for 2020 assumes attendance increases one percent annually.

Theme Park	2015 Estimate	Growth Rate 2016 thru 2020	Average Population
Magic Kingdom	49,075	5%	51,578
Epcot	30,240	5%	31,782
Disney's Hollywood Studios	26,571	5%	27,926
Disney's Animal Kingdom	26382	5%	27,728
Typhoon Lagoon Water Park	5,694	5%	5,985
Blizzard Beach Water Park	5,229	5%	5,496
New Minor Theme Park	2,513	5%	2,641
Total	**145,703**	**5%**	**153,136**

Total Population

The District's average daily population falls between the sum of the permanent population plus the theme park visitor population plus the employee population (low range) and the sum of all four categories (high range). Obviously the District's average daily population falls between these two extremes. The District's total average daily population is projected to increases between 36,178 (19 percent) and 93,466 (30 percent) from 2016 through 2020.

Year	Permanent Population	Overnight Guest Population	Theme Park Visitor Population	Employee Population	Total Population Range	
					Low	High
2020	43	142,620	153,136	61,689	**214,868**	**357,488**

Reedy Creek Improvement District
Comprehensive Plan

APPENDIX B

TRANSPORTATION SERVICE FLOW RATES

TABLE 7

Generalized **Peak Hour Directional** Volumes for Florida's **Urbanized Areas**[1]

9/4/09

STATE SIGNALIZED ARTERIALS

Class I (>0.00 to 1.99 signalized intersections per mile)

Lanes	Median	B	C	D	E
1	Undivided	510	820	880	***
2	Divided	1,560	1,890	1,960	***
3	Divided	2,400	2,860	2,940	***
4	Divided	3,240	3,830	3,940	***

Class II (2.00 to 4.50 signalized intersections per mile)

Lanes	Median	B	C	D	E
1	Undivided	**	560	810	860
2	Divided	**	1,330	1,770	1,870
3	Divided	**	2,080	2,680	2,830
4	Divided	**	2,830	3,590	3,780

Class III/IV (more than 4.50 signalized intersections per mile)

Lanes	Median	B	C	D	E
1	Undivided	**	270	630	790
2	Divided	**	670	1,500	1,700
3	Divided	**	1,050	2,330	2,570
4	Divided	**	1,440	3,170	3,450

Non-State Signalized Roadway Adjustments

(Alter corresponding state volumes by the indicated percent.)

Major City/County Roadways	- 10%
Other Signalized Roadways	- 35%

State & Non-State Signalized Roadway Adjustments

(Alter corresponding state volumes by the indicated percent.)

Divided/Undivided & Turn Lane Adjustments

Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors
2	Divided	Yes	No	+5%
2	Undivided	No	No	-20%
Multi	Undivided	Yes	No	-5%
Multi	Undivided	No	No	-25%
–	–	–	Yes	+ 15%

One-Way Facility Adjustment

Multiply the corresponding volumes in this table by 1.20.

FREEWAYS

Lanes	B	C	D	E
2	2,200	3,020	3,720	4,020
3	3,300	4,580	5,580	6,200
4	4,400	6,080	7,420	8,400
5	5,500	7,680	9,320	10,580
6	7,560	10,220	12,080	12,780

Freeway Adjustments

Auxiliary Lanes	Ramp Metering	Oversaturated Conditions*
+ 1,000	+ 5%	-10% of E

UNINTERRUPTED FLOW HIGHWAYS

Lanes	Median	B	C	D	E
1	Undivided	400	800	1,140	1,440
2	Divided	1,770	2,560	3,320	3,760
3	Divided	2,660	3,840	4,980	5,650

Uninterrupted Flow Highway Adjustments

Lanes	Median	Exclusive left lanes	Adjustment factors
2	Divided	Yes	+5%
Multi	Undivided	Yes	-5%
Multi	Undivided	No	-25%

BICYCLE MODE[2]

(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Paved Shoulder/ Bicycle Lane

Coverage	B	C	D	E
0-49%	**	170	650	>650
50-84%	130	200	>200	***
85-100%	340	>340	***	***

PEDESTRIAN MODE[2]

(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Sidewalk Coverage	B	C	D	E
0-49%	**	**	270	770
50-84%	**	100	600	1000
85-100%	**	610	1000	>1000

BUS MODE (Scheduled Fixed Route)[3]

(Buses in peak hour in peak direction)

Sidewalk Coverage	B	C	D	E
0-84%	>5	≥4	≥3	≥2
85-100%	>4	≥3	≥2	≥1

[1] Values shown are presented as hourly directional volumes for levels of service and are for the automobile/truck modes unless specifically stated. To convert to annual average daily traffic volumes, these volumes must be divided by appropriate D and K factors. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the Highway Capacity Manual, Bicycle LOS Model, Pedestrian LOS Model and Transit Capacity and Quality of Service Manual, respectively for the automobile/truck, bicycle, pedestrian and bus modes.

[2] Level of service for the bicycle and pedestrian modes in this table is based on number of motorized vehicles, not number of bicyclists or pedestrians using the facility.

[3] Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.

* For oversaturated conditions during peak hour, subtract 10% from the LOS E (capacity volumes). This number becomes the new maximum service volume for LOS D, and LOS E cannot be achieved.

** Cannot be achieved using table input value defaults.

*** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.

Source:
Florida Department of Transportation
Systems Planning Office
605 Suwannee Street, MS 19
Tallahassee, FL 32399-0450

Memorandum

482 South Keller Road
Orlando, FL 32810
Phone: 407.647.7275 Fax: 407.647.3815
E-mail: ylreynolds@pbsj.com

TO: Bryan Gaines, WDI

FROM: Scott Zornek, PBS&J

DATE: April 21, 2010

SUBJECT: Osceola Parkway – Victory Way to World Drive - Spot Speed Study and LOS Traffic Volumes

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Overview

As part of the Reedy Creek Improvement District's Comprehensive Plan update changes are proposed to Peak Directional Level of Service Capacities. One change of note occurs on the section of Osceola Parkway from Victory Way to World Drive. This section had been identified in previous plans to be widened to six lanes. This widening has been removed from the current plan. Therefore, the capacity on this section of roadway has been reduced from 2,940 vehicles per hour in the peak direction to 1,960 vehicles per hour in the peak direction.

Upon request, PBS&J conducted a spot speed study along this segment of Osceola Parkway. The purpose of this study was to identify the free flow speed and use this information to determine a more appropriate Peak Directional Level of Service Capacity.

Spot Speed Study

A spot speed study was conducted to measure the prevailing travel speed on Osceola Parkway between Victory Way and World Drive. The spot speed study was conducted west of the intersection of Osceola Parkway and Victory Way.. This section of roadway is a 4-lane divided roadway. The study revealed that the 85th percentile speed for westbound vehicles was 51.5 miles per hour with a 10 mph pace ranging from 43 to 52 miles per hour. The average speed westbound was 47.2 mph. The 85th percentile speed for eastbound vehicles was 51.9 miles per hour with a 10 mph pace ranging from 43 to 52 miles per hour. The average speed eastbound was 48.7 mph. The combined 85th percentile speed for both directions of Osceola Parkway was 51.8 miles per hour with a 10 mph pace ranging from 43 to 52 miles per hour. The combined average speed was 48.0 mph. The existing posted speed limit at this location is 45 mph. Summary worksheets of the spot speed studies are provided in the appendix.

Peak Directional Level of Service Capacity

It is believed the capacity for this segment of roadway is greater than that of a standard four-lane divided arterial. The 1,960 vehicles per hour identified in the FDOT Generalized Level of Service Tables assumes that the signals along the arterial are controlling the side streets as well as the mainline traffic. In the FDOT generalized analysis the g/C for the through movement at each traffic signal is assumed to be 0.44 with a 120 second cycle length. However, the signal that is part of the study segment on Osceola Parkway is only a two-phase signal that allows the westbound left turning traffic to access the northbound World Drive on ramp. The signal actually operates with a g/C ration of 0.54 with an 85 second cycle length. The difference in the cycle length and g/C allows the existing signal to provide six minutes more green time to Osceola Parkway per hour. This extended green time increases the throughput of traffic along the study section of roadway beyond what is identified in the FDOT Generalized Level of Service Tables.

In the appendix of memorandum are two examples for calculating the capacity for the study section of roadway. The first example uses the LOSPLAN 2009 software package developed by FDOT. This method is generally accepted by most agencies when analyzing arterial capacities. The second method is directly from the Highway Capacity Manual (HCM). Although LOSPLAN 2009 is based on the HCM, it does not allow the user to adjust certain parameters in the analysis such as free flow speed. It should be noted that both analysis techniques provided similar results.

The Table 1 provides a summary of the analysis results.

Table 1 – Revised Peak Direction Level of Service Capacities

	A	B	C	D	E
LOSPLAN 2009	**	1,300	2,130	2,260	2,300
HCM	**	940	2,080	2,290	2,460

Conclusion

Based on the results two capacity analyses, it recommended that the Level or Service Capacity for the segment of Osceola Parkway from Victory Way to World Drive be increased to match the results of the LOSPLAN 2009 analysis. These results provide a more conservative estimate of the roadway capacity.

LOCATION: Osceola Pkwy between Victory Way and World Drive
STUDY BY: Scott Zornek
DATE: 1-Apr-10

* **FILL IN THESE COLUMNS**

	WB			*	*	*		*EB*
85th PCT.	**10 MPH PACE**	**CUM TOTAL**	**TOTAL**	**MPH**	**TOTAL**	**CUM TOTAL**	**85th PCT.**	**10 MPH PACE**
96.05	**82**	113		**0**		110	**93.5**	**91**
	20	113		**60**	1	110		25
	28	113		**59**		109		30
	36	113		**58**	1	109		39
	49	113		**57**		108		54
	57	113	5	**56**	1	108		69
	62	108	3	**55**	1	107		75
	68	105	2	**54**	5	106		84
	74	103	4	**53**	7	101		87
	82	99	6	**52**	9	94		91
	80	93	8	**51**	6	85		83
	74	85	8	**50**	9	79		78
	67	77	13	**49**	16	70		69
	54	64	8	**48**	15	54		54
	49	56	10	**47**	7	39		39
	39	46	9	**46**	10	32		32
	33	37	8	**45**	8	22		22
	26	29	12	**44**	11	14		14
	15	17	4	**43**	1	3		3
	11	13	2	**42**	1	2		2
	10	11	1	**41**		1		1
	9	10		**40**	1	1		1
	9	10	3	**39**		0		0
	7	7		**38**		0		0
	7	7	3	**37**		0		0
	4	4	1	**36**		0		0
	3	3	1	**35**		0		0
	2	2		**34**		0		0
	2	2	1	**33**		0		0
	1	1		**32**		0		0
	1	1		**31**		0		0
	1	1	1	**30**		0		0
	0	0		**29**		0		0
		0		**28**		0		
		0		**27**		0		
		0		**26**		0		
		0		**25**		0		
		0		**24**		0		
		0		**23**		0		
		0		**22**		0		
		0		**21**		0		
		0		**20**		0		
		0		**<20**		0		

WB		**EB**	
85th PCT	**51.51**	85th PCT	**51.94**
10 MPH PACE	**43 - 52**	10 MPH PACE	**43 - 52**

LOCATION: Osceola Pkwy between Victory Way and World Drive
STUDY BY: Scott Zornek
DATE: 1-Apr-10

* **FILL IN THESE COLUMNS**

* * *

							Combined	
85th PCT.	**10 MPH PACE**	**CUM TOTAL**	**TOTAL**	**MPH**	**TOTAL**	**CUM TOTAL**	**85th PCT.**	**10 MPH PACE**
0	**0**	0		**0**		223	**189.55**	**173**
	0	0		**60**	1	223		45
	0	0		**59**	0	222		58
	0	0		**58**	1	222		75
	0	0		**57**	0	221		103
	0	0		**56**	6	221		126
	0	0		**55**	4	215		137
	0	0		**54**	7	211		152
	0	0		**53**	11	204		161
	0	0		**52**	15	193		173
	0	0		**51**	14	178		163
	0	0		**50**	17	164		152
	0	0		**49**	29	147		136
	0	0		**48**	23	118		108
	0	0		**47**	17	95		88
	0	0		**46**	19	78		71
	0	0		**45**	16	59		55
	0	0		**44**	23	43		40
	0	0		**43**	5	20		18
	0	0		**42**	3	15		13
	0	0		**41**	1	12		11
	0	0		**40**	1	11		10
	0	0		**39**	3	10		9
	0	0		**38**	0	7		7
	0	0		**37**	3	7		7
	0	0		**36**	1	4		4
	0	0		**35**	1	3		3
	0	0		**34**	0	2		2
	0	0		**33**	1	2		2
	0	0		**32**	0	1		1
	0	0		**31**	0	1		1
	0	0		**30**	1	1		1
	0	0		**29**		0		0
		0		**28**		0		
		0		**27**		0		
		0		**26**		0		
		0		**25**		0		
		0		**24**		0		
		0		**23**		0		
		0		**22**		0		
		0		**21**		0		
		0		**20**		0		
		0		**<20**		0		

Combined

85th PCT **51.77**

10 MPH PACE **43 - 52**

ARTPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	SAZ	**Arterial Name**	Osceola Parkway	**Study Period**	K100
Date Prepared	4/16/2010 12:57:26 PM	**From**	Victory Way	**Modal Analysis**	Auto Only
Agency		**To**	World Drive	**Program**	ARTPLAN 2009
Area Type	Large Urbanized	**Peak Direction**	Westbound	**Version Date**	3/7/10
Arterial Class	1				
File Name	c:\temp\preview.xml				
User Notes	Inputs with adjusted g/C based on actual signal timing at World Drive				

Arterial Data

K	0.097	**PHF**	0.925	**Control Type**	Actuated
D	0.55	**% Heavy Vehicles**	2	**Base Sat. Flow Rate**	1950

Automobile Intersection and Segment Data

Segment #	Cycle Length	Thru g/C	Arr. Type	INT # Dir.Lanes	% Left Turns	% Right Turns	Left Turn Lanes	# Left Turn Lanes	LT Storage Length	Left g/C	Right Turn Lanes	Length	AADT	Hourly Vol.	SEG # Dir.Lanes	FFS	Median Type
1 (to World Drive)	85	0.54	3	2	0	12	No				Yes	3033	34000	1814	2	50	Restrictive

Automobile LOS

Segment #	Thru Mvmt Flow Rate	Adj. Sat. Flow Rate	v/c	Control Delay	Int. Approach LOS	Queue Ratio	Speed (mph)	Segment LOS
1 (to World Drive)	1726	3697	0.865	18.56	B	0.00	30.56	C

Arterial Length	0.5744	Weighted g/C	##	FFS Delay	26.32	Threshold Delay	0.00	Auto Speed	30.56	Auto LOS	C

Automobile Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1000 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	**	620	1030	1110	1140
2	**	1300	2130	2260	2300
3	**	1980	3230	3420	3480
4	**	2660	4330	4570	4660
*	**	1300	2130	2260	2300
Lanes	**Hourly Volume In Both Directions**				
2	**	1130	1880	2020	2070
4	**	2370	3880	4110	4200
6	**	3600	5880	6220	6340
8	**	4840	7880	8310	8470
*	**	2370	3880	4110	4200
Lanes	**Annual Average Daily Traffic**				
2	**	11700	19400	20900	21300
4	**	24400	40000	42400	43300
6	**	37200	60600	64200	65300
8	**	49900	81200	85700	87300
*	**	24400	40000	42400	43300

*** Service Volumes for the specific facility being analyzed, based on # of lanes from the Intersection and segment data screens.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**
 # Under the given conditions, left turn lane storage is highly likely to overflow. The number of directional thru lanes should be reduced accordingly.
Facility weighted g/C exceeds normally acceptable upper range (0.5); verify that g/C inputs are correct.
Intersection capacity (ies) are exceeded for the full hour; an operational level analysis tool is more appropriate for this situation.

FFS=	47	Urban Street Class	I	Signals	1
K=	0.097	Arrival Type	3	Segments	1
D=	0.55	Actuated Signals			
PHF=	0.925	Cycle Length=	85	sec	
s=	1950	g/C=	0.54		
P_{LT}=	0.12	Segment Length	0.57	mi	
Analysis Period=	0.25	N=	2		

Step 1 - Find the lowest acceptable travel speed for Urban Street Class I and a given LOS (Exhibit 15-2)

	A	B	C	D	E	F
Lowest Acceptable Speed at LOS (S_A)	42.1	34.1	27.1	21.1	16.1	0.1

Step 2 - Find Travel time for segment length

Running time per mile = 84 sec (Exhibit 15-3)

T_R= 48 sec

Urban Street Travel time = 48 sec

Urban Street Travel Time =

Step 3 - Find d for the total urban street (use Equation 15-6)

$$d = \frac{3600L}{S_A} - T_R$$

	A	B	C	D	E	F
d=	0.9	12.3	27.8	49.4	79.6	20472.1

Step 4 - Find PF, k, I (use Exhibits 15-5, 15-6, and 15-7)

PF=	1	(Exhibit 15-5)	
k=	0.5	(Exhibit 15-6)	
Assume I=	1	for intersection 1	(Exhibit 15-7)
	0.09	for intersection 2	(Exhibit 15-7)

Step 5 - Find c (use Equation 15-7)

$$c = N * s * (g/C)$$

c = 2106

$$d = \sum_{1}^{2} d_i =$$

d	LOS
0.9	A
12.3	B
27.8	C
49.4	D
79.6	E
20472.1	F

$d = d_1(PF) + d_2 + d_3$

$d = 2*d_1*PF + d_2(Int.1) + d_2(Int.\ 2)$

$$d_1 = \frac{0.5C\left(1-\frac{g}{C}\right)^2}{1-\left[\min(1,X)\frac{g}{C}\right]}$$

$$d_1 = \frac{0.5(85)(1-.44)^2}{1-.44X}$$

$$d1 = \frac{8.993}{1 - .42X}$$

d_2 for Intersection 1

$$d_2 = 900T\left[(X-1) + \sqrt{(X-1)^2 + \frac{8kIX}{cT}}\right]$$

$$d_2 = 900(0.25)\left[(X-1) + \sqrt{(X-1)^2 + \frac{8(0.5)(1.0)X}{(1950)(0.25)}}\right]$$

$$d_2 = 225\left[(X-1) + \sqrt{(X-1)^2 + \frac{4X}{487.5}}\right]$$

d_2 for Intersection 1

$$d_2 = 225\left[(X-1) + \sqrt{(X-1)^2 + \frac{0.36X}{487.5}}\right]$$

	A	B	C	D	E	F
d	0.9	12.3	27.8	49.4	79.6	20472.1
X	-8.1712	0.4248	0.9377	1.0341	1.1104	46.4924

Step 7 - Find V_h and AADT

$$V_h = \frac{X * c * PHF}{(1-P_{LT})}$$

PHF = 0.925 D = 0.55

P_{LT} = 0.12 K = 0.097

	A	B	C	D	E
V_h	-18090	940	2080	2290	2460
AADT	-339080	17620	38990	42920	46110

TABLE 7
(continued)

Generalized **Peak Hour Directional** Volumes for Florida's

Urbanized Areas

9/4/09

INPUT VALUE ASSUMPTIONS	Uninterrupted Flow Facilities			Interrupted Flow Facilities								
				State Arterials						Class II		
	Freeways	Highways		Class I		Class II		Class III		Bicycle	Pedestrian	Bus
ROADWAY CHARACTERISTICS												
Area type (l,o)	l	l	l	l	l	l	l	l	l	l	l	l
Number of through lanes	2-6	1	2-3	1	2-4	1	2-4	1	2-4	2	2	
Posted speed (mph)	65	50	50	45	50	45	45	35	35	45	45	
Free flow speed (mph)	70	55	55	50	55	50	50	40	40	50	50	
Aux, meter, or accel/decel ≥1500 (n,y)	n											
Median (n, nr, r)		n	r	n	r	n	r	n	r	r	r	
Terrain (l,r)	l	l	l									
% no passing zone		80										
Exclusive left turn lanes /[impact](n, y)		[n]	y	y	y	y	y	y	y	y	y	
Exclusive right turn lanes (n, y)				n	n	n	n	n	n	n	n	
Paved shoulder/bicycle lane (n, y)										n, 50%,y	n	
Outside lane width										t	t	
Pavement condition										t		
Sidewalk (n, y)											n, 50%,y	n,y
Sidewalk/roadway separation (a, t, w)											t	
Sidewalk protective barrier (n, y)											n	
Obstacle to bus stop (n, y)												n
Facility length (mi)	4	5	5	2	2	2	2	2	2	2	2	2
Number of segments	4											
TRAFFIC CHARACTERISTICS												
Planning analysis hour factor (K)	0.092	0.094	0.094	0.097	0.097	0.097	0.097	0.097	0.097	0.097	0.097	
Directional distribution factor (D)	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	
Peak hour factor (PHF)	0.95	0.925	0.925	0.925	0.925	0.925	0.925	0.925	0.925	0.925	0.925	
Base saturation flow rate (pcphpl)		1700	2100	1950	1950	1950	1950	1950	1950	1950	1950	
Heavy vehicle percent	4.0	2.0	2.0	2.0	2.0	2.0	2.0	1.5	1.5	2.0	2.0	
Local adjustment factor	.98	1.0	.98									
% left turns				12	12	12	12	12	12	12	12	
% right turns				12	12	12	12	12	12	12	12	
Bus span of service												15
CONTROL CHARACTERISTICS												
Number of signals				2	2	6	6	10	10	6	6	
Arrival type (1-6)				3	3	4	4	4	4	4	4	
Signal type (a, s, p)				a	a	s	s	s	s	s	s	
Cycle length (C)				120	120	120	120	120	120	120	120	
Effective green ratio (g/C)				0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	

LEVEL OF SERVICE THRESHOLDS

Level of Service	Freeways	Highway Segments		State & Non-State Signalized Arterials			Bicycle	Pedestrian	Bus
		Two-Lane	Multilane	Class I	Class II	Class III			
	Density	%ffs	Density	ats	ats	ats	Score	Score	Buses per hr.
B	≤17	≥0.833	≤18	> 34 mph	> 28 mph	> 24 mph	≤2.5	≤2.5	≥4
C	≤24	>0.750	≤26	> 27 mph	> 22 mph	> 18 mph	≤3.5	≤3.5	≥3
D	≤31	>0.667	≤35	> 21 mph	> 17 mph	> 14 mph	≤4.5	≤4.5	≥2
E	≤39	>0.583	≤41	> 16 mph	> 13 mph	> 10 mph	≤5.5	≤5.5	≥1

% ffs = Percent free flow speed ats = Average travel speed

Reedy Creek Improvement District
Comprehensive Plan

APPENDIX C

AFFORDABLE HOUSING STUDY UPDATE 2008

Reedy Creek Improvement District – Affordable Housing Study Update

Prepared for

Ms. Lee Pulham
Reedy Creek Improvement District

October 31, 2008

Prepared by

Fishkind & Associates, Inc.
12051 Corporate Boulevard
Orlando, Florida 32817
407-382-3256

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Table of Contents

Executive Summary

- The Reedy Creek Improvement District (RCID) has tasked Fishkind and Associates, Inc. with providing an analysis of the Housing Target Zone (HTZ) geography. Based on the updated HTZ geography, Fishkind was tasked with providing an updated analysis of the projected demand for affordable housing generated by the RCID and the supply of affordable housing within HTZ for the 2009 to 2013 planning period.

- Fishkind's analysis is based on the currently approved East Central Florida Regional Planning Council (ECFRPC) Affordable Housing Methodology which was adopted in 1999 and which currently serves as the guiding methodology for all Development of Regional Impact applications across the State of Florida. This methodology also includes methodological updates which were developed in conjunction with the ECFRPC during 2005 – 2008 and are consistent with other housing analyses recently reviewed and approved by ECFRPC.

- Before conducting the analysis of supply and demand of affordable housing, Fishkind first updated the HTZ based on the housing location patterns of the existing employees of the RCID. The demand for affordable housing was compared to the supply of housing found within the boundaries of the updated HTZ to determine if adequate affordable housing supply exists to accommodate the future demand for affordable housing, that will be generated by the RCID.

- As shown below in Table ES-1, Fishkind projects that the RCID will generate average annual demand for 196 very low, low and moderate households. The breakdown of demand by income category shows demand for 53 very low units, 62 low units, and 81 moderate units.

- Because the RCID generated household demand does not exist in a vacuum, and there are numerous other major employment generators within the HTZ, it is also necessary to determine the demand for affordable housing that will arise from the normal patterns of growth within the HTZ, so as to eliminate the problem of double counting supply were other major employers to review their housing needs.

- Fishkind's analysis of normal HTZ growth projects average annual demand for 1,493 very low, low and moderate households. The breakdown by income category includes 254 very low households, 469 low households and 770 moderate households.

- In total, Fishkind projects annual for-sale demand for 307 very low households, 531 low households, and 851 moderate households each year over the next five years.

Table ES-1. Annual Affordable Housing For-Sale Demand.

For-Sale	Income	Home Price	RCID Annual Demand	HTZ Annual Demand	Total Annual Demand
Very Low	$15,811 - $28,550	$46,905 - $84,695	53	254	307
Low	$31,050 - $46,250	$84,695 - $137,204	62	469	531
Moderate	$50,000 - $70,000	$137,204 - $207,662	81	770	851
Total			196	1,493	1,689

Source: Fishkind and Associates, Inc.

- As shown in Table ES-2, Fishkind projects an annual for-sale supply of 355 very low for-sale units, 1,099 low for-sale units and 4,901 moderate for-sale units. In total, Fishkind projects an average annual supply of 6,355 for-sale affordable housing units each year within the HTZ.

Table ES-2. Annual Affordable Housing For-Sale Supply.

For-Sale	Income	Home Price	Annual Supply
Very Low	$15,811 - $28,550	$46,905 - $84,695	355
Low	$31,050 - $46,250	$84,695 - $137,204	1,099
Moderate	$50,000 - $70,000	$137,204 - $207,662	4,901
Total			6,355

Source: Fishkind and Associates, Inc.

- A comparison of the annual for-sale demand projections shown in Table ES-1 to the annual supply projections shown in Table ES-2 indicates that there will be a surplus of affordable housing within the very low, low and moderate income categories each year over the next five years.

- Thus, based on Fishkind's analysis, the supply of affordable housing within the designated HTZ is more than sufficient to accommodate both the demand generated by the RCID as well as the demand generated by the normal patterns of growth within the HTZ.

Table ES-3. Annual Affordable Housing For-Sale Summary.

For-Sale	Income	Home Price	Annual Supply	Annual Demand	Net Annual Surplus
Very Low	$15,811 - $28,550	$46,905 - $84,695	355	307	48
Low	$31,050 - $46,250	$84,695 - $137,204	1,099	531	568
Moderate	$50,000 - $70,000	$137,204 - $207,662	4,901	851	4,050
Total			6,355	1,689	4,666

Source: Fishkind and Associates, Inc.

- As shown below in Table ES-4, Fishkind projects that the RCID will generate average annual for-rent demand for 268 very low, low and moderate households. The breakdown of demand by income category shows demand for 122 very low units, 92 low units, and 54 moderate units.

- Fishkind's analysis of normal HTZ growth projects average annual for-rent demand for 1,806 very low, low and moderate households. The breakdown by income category includes 590 very low households, 702 low households and 514 moderate households.

- In total, Fishkind projects annual demand for 712 very low households, 794 low households, and 568 moderate households each year over the next five years.

Table ES-4. Annual Affordable Housing For-Rent Demand.

For-Rent	Income	Rental Rate	RCID Annual Demand	HTZ Annual Demand	Total Annual Demand
Very Low	$15,811 - $28,550	$295 - $614	122	590	712
Low	$31,050 - $46,250	$614 - $1,056	92	702	794
Moderate	$50,000 - $70,000	$1,056 - $1,650	54	514	568
Total			268	1,806	2,074

Source: Fishkind and Associates, Inc.

- As shown in Table ES-5, Fishkind projects an annual supply of 1,406 very low for-rent units, 2,738 low for-rent units and 1,147 moderate for-rent units. In total, Fishkind projects an average annual supply of 5,291 for-rent affordable housing units each year within the HTZ.

Table ES-5. Annual Affordable Housing For-Rent Supply.

For-Rent	Income	Rental Rate	Annual Supply
Very Low	$15,811 - $28,550	$295 - $614	1,406
Low	$31,050 - $46,250	$614 - $1,056	2,738
Moderate	$50,000 - $70,000	$1,056 - $1,650	1,147
Total			5,291

Source: Fishkind and Associates, Inc.

- A comparison of the annual demand projections shown in Table ES-4 to the annual supply projections shown in Table ES-5 indicates that there will be a surplus of for-rent affordable housing within the very low, low and moderate income categories each year over the next five years. Specifically, the very low category is projected to have an annual for-rent surplus of 383 units per year, the low category is projected to have an annual for-rent surplus of 2,056 units per year, and the moderate category is projected to have an annual surplus of 758 units per year.

- Thus, based on Fishkind's analysis, the supply of affordable housing within the designated HTZ is more than sufficient to accommodate both the demand generated by the RCID as well as the demand generated by the normal patterns of growth within the HTZ.

Table ES-6. Annual Affordable Housing For-Rent Summary.

For-Rent	Income	Rental Rate	Annual Supply	Annual Demand	Net Annual Surplus
Very Low	$15,811 - $28,550	$295 - $614	1,095	712	383
Low	$31,050 - $46,250	$614 - $1,056	2,850	794	2,056
Moderate	$50,000 - $70,000	$1,056 - $1,650	1,326	568	758
Total			5,271	2,074	3,197

Source: Fishkind and Associates, Inc.

- In total, Fishkind projects an annual surplus of affordable housing supply within the HTZ in all three income categories. As such, Fishkind concludes that the employment generation of the RCID will have no adverse affordable housing impacts and no further affordable housing mitigation is required. Table ES-7 provides a summary of the affordable housing analysis.

Table ES-7. Total Annual Affordable Housing Summary.

For-Sale	Income	Annual Supply	Annual Demand	Net Surplus
Very Low	$15,811 - $28,550	1,450	1,019	431
Low	$31,050 - $46,250	3,949	1,325	2,624
Moderate	$50,000 - $70,000	6,227	1,419	4,808
Total		11,626	3,763	7,863

Source: Fishkind and Associates, Inc.

1.0 Introduction

1.1 Background

The Reedy Creek Improvement District (RCID) has tasked Fishkind and Associates, Inc. with providing an analysis of the Housing Target Zone (HTZ) geography. Based on the updated HTZ geography, Fishkind was tasked with providing an updated analysis of the projected demand for affordable housing generated by the RCID and the supply of affordable housing within HTZ for the 2009 to 2013 planning period. The purpose of this analysis is to provide support for the data included in the RCID Housing Element Update. The RCID is a major regional employment center with only a small population of permanent residents. The primary focus of the RCID Housing Element is on the housing needs of persons employed within the RCID boundaries.

The RCID's initial affordable housing study was conducted in early 1996. In 2003, the boundary of the HTZ was updated following the availability of 2000 census data. Fishkind and Associates, Inc. has revised the 1996 affordable housing analysis including an update to the 2003 HTZ boundary. The analysis projects the impact of RCID employment on the affordable housing supply within the HTZ over the 2009 to 2013 planning period.

1.2 Affordable Housing Methodology

Fishkind's analysis is based on the currently approved East Central Florida Regional Planning Council (ECFRPC) Affordable Housing Methodology which was adopted in 1999 and which currently serves as the guiding methodology for all Development of Regional Impact applications across the State of Florida. This methodology also includes methodological updates which were developed in conjunction with the ECFRPC during 2005 – 2008 and are consistent with other housing analyses recently reviewed and approved by ECFRPC. Before conducting the analysis of supply and demand of affordable housing, Fishkind first updated the HTZ based on the housing location patterns of the existing employees of the RCID. The demand for affordable housing was then compared to the supply of housing found within the boundaries of the updated HTZ to determine if adequate affordable housing supply exists to accommodate the future demand generated by the RCID.

Fishkind next analyzed historical employment growth within the RCID. Based on these historical employment growth patterns, Fishkind derived a projection of annual employment growth within the RCID. The annual employment growth was then converted into demand for affordable housing utilizing models created by the ECFRPC.

Because the RCID generated affordable housing demand exists in context with other employers located within the HTZ, it was also necessary to project the demand for affordable housing that will arise out of the normal growth patterns of the HTZ, so as to eliminate the problem of double counting supply were other major employers to review their housing needs. This represents additional demand that will be competing for the same supply of affordable housing within the HTZ. As with the RCID housing demand projection, Fishkind utilized the historical growth patterns of the HTZ to arrive at the projected annual demand. Next, Fishkind estimated the breakdown of for-sale to for-rent demand. The for-sale/for-rent breakdown was estimated based on the current ratio of for-sale to for-rent product in the market.

The supply of affordable housing was broken down into three categories: (1) for-sale, (2) apartment for-rent and (3) private for-rent. To estimate the supply of for-sale housing, Fishkind analyzed the volume of sales transactions within the HTZ, as shown in the property appraiser databases of the four counties included within the HTZ. Fishkind inventoried only "Qualified" sales that occurred within 2007. It was then assumed that this one-year "snap shot" of sales activity will represent the average supply available on an annual basis over the five year planning period.

To estimate for-rent housing, Fishkind utilized data provided by Charles Wayne Consulting to estimate the supply of commercial apartment units within the HTZ. Vacancy rates and rental rates were analyzed to arrive at the total volume of vacant units that can be expected to accommodate for-rent demand on an annual basis. In addition to the commercial apartment units, Fishkind also looked at the volume of private residences that are in the rental market. The private rental analysis utilized a combination of U.S. Census Bureau, University of Florida Bureau of Economic and Business Research (BEBR), and Consumer Price Index (CPI) data to arrive at estimates of vacant supply within the HTZ. Fishkind then combined the two increments of rental supply to arrive at the total supply of for-rent units in the HTZ.

Finally, Fishkind compared the supply of affordable housing available on an annual basis to the demand for affordable housing generated on an annual basis by the RCID and the HTZ to determine if the HTZ has sufficient supply to accommodate all of the future demand.

2.0 Housing Target Zone

2.1 Historical Housing Target Zones

The HTZ outlines the trade area within which the supply of affordable housing is inventoried. While the definitions utilized to determine the appropriate size of an HTZ have evolved over the years based on changing commute times, housing prices, transportation costs, etc., the HTZ represents the geographic boundary within which a new employee should expect to be able to find cost appropriate housing. Proper planning practices suggest that workers should not have to commute further than the boundary of the HTZ as this would result in an unnecessary cost and time burden on the worker. As such, when evaluating the size of the HTZ for an analysis of this kind, it is vitally important to understand the impact that commute times and housing/transportation costs will have on the worker's home buying decision.

The 1996 RCID Affordable Housing Study prepared by Bay Area Economics (BAE), utilized a multi-step process to determine the appropriate HTZ for the RCID. According to the BAE study, the HTZ boundary was defined based on a number of parameters including, average commute times for the State, RCID existing employee commute times, and housing and commuting costs. Ultimately, BAE defined the HTZ based on the census tracts which, in their opinion, best represented the affordable housing catchment area. The BAE HTZ boundary is represented by the green line found below in Map 2.1.

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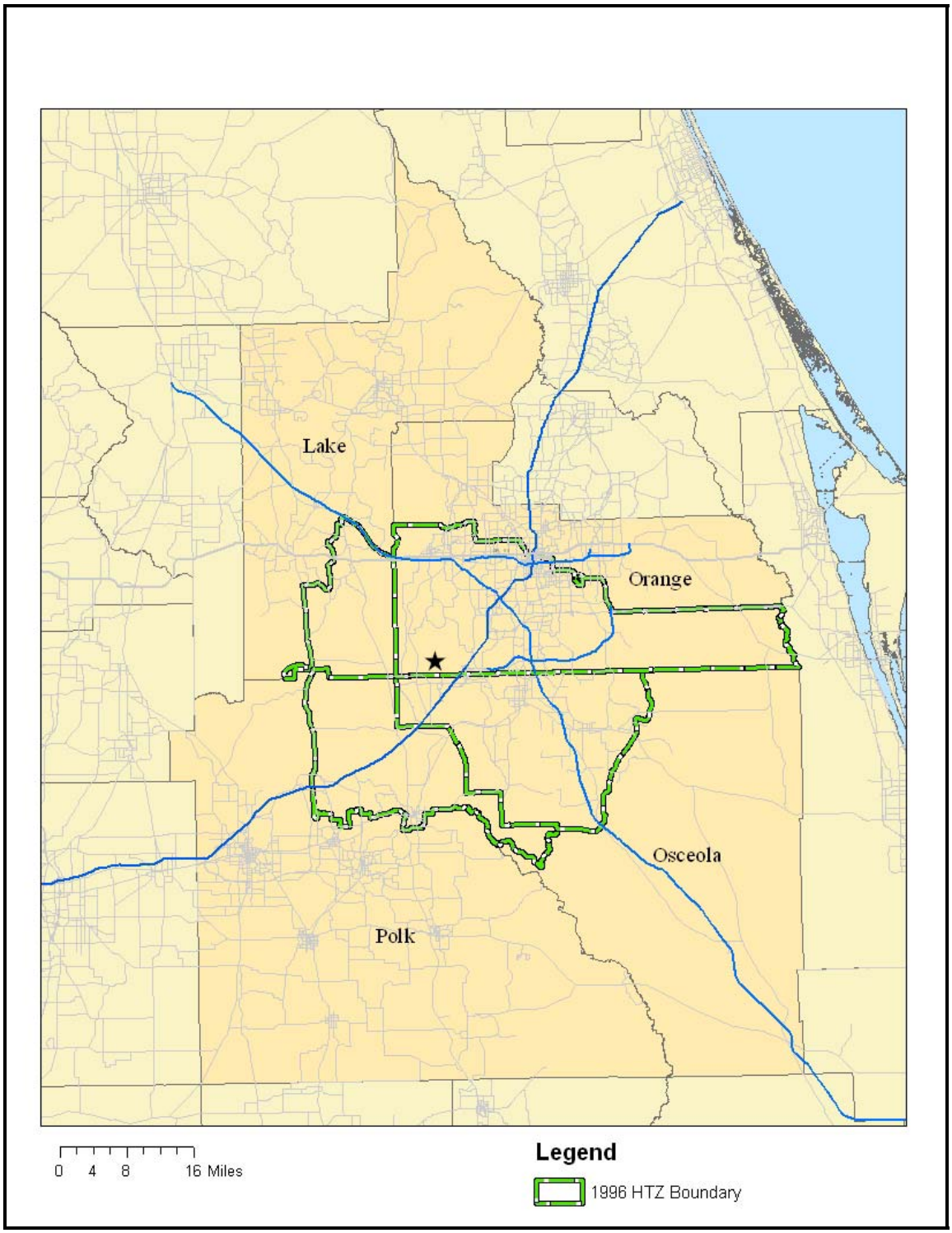
Map 2.1. BAE HTZ Boundary. (1996).



In 2005, the RCID Affordable Housing Study was updated by Real Estate Research Consultants (RERC). The RERC study was based in part on the parameters outlined by the ECFRPC affordable housing methodology, which utilizes the lesser of a 10-mile/20-minute drive-time as the appropriate boundary for an HTZ. The RERC analysis defined the HTZ as a 20-minute drive-time surrounding the RCID. The RERC analysis admittedly does not take into account other home buying considerations which could legitimately extend the boundaries of the HTZ. As such, the affordable housing supply estimates of the RERC study should be considered very conservative. The RERC HTZ boundary is represented by the red line shown below in Map 2.2.

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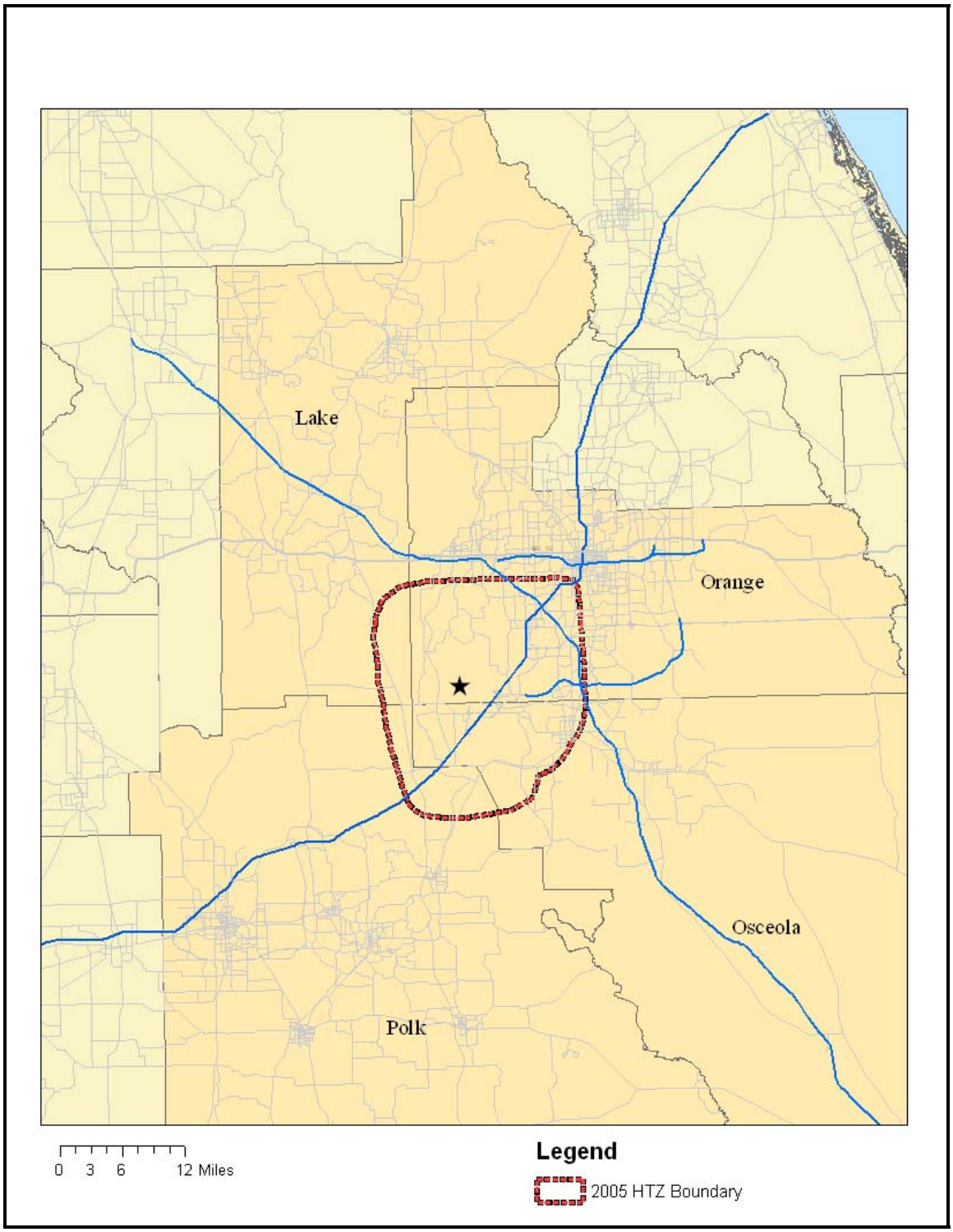
Map 2.2. RERC HTZ Boundary. (2005).



Fishkind has conducted an extensive review of the methodologies utilized to define the HTZ boundaries within the previously conducted RCID affordable housing analyses and has determined that an updated HTZ boundary should be created to better reflect the actual buying patterns exhibited by existing RCID employees. As is described below, the buying patterns of existing RCID employees indicates that the most reasonable HTZ boundary for the RCID should lie between the 1996 and 2005 HTZ boundaries.

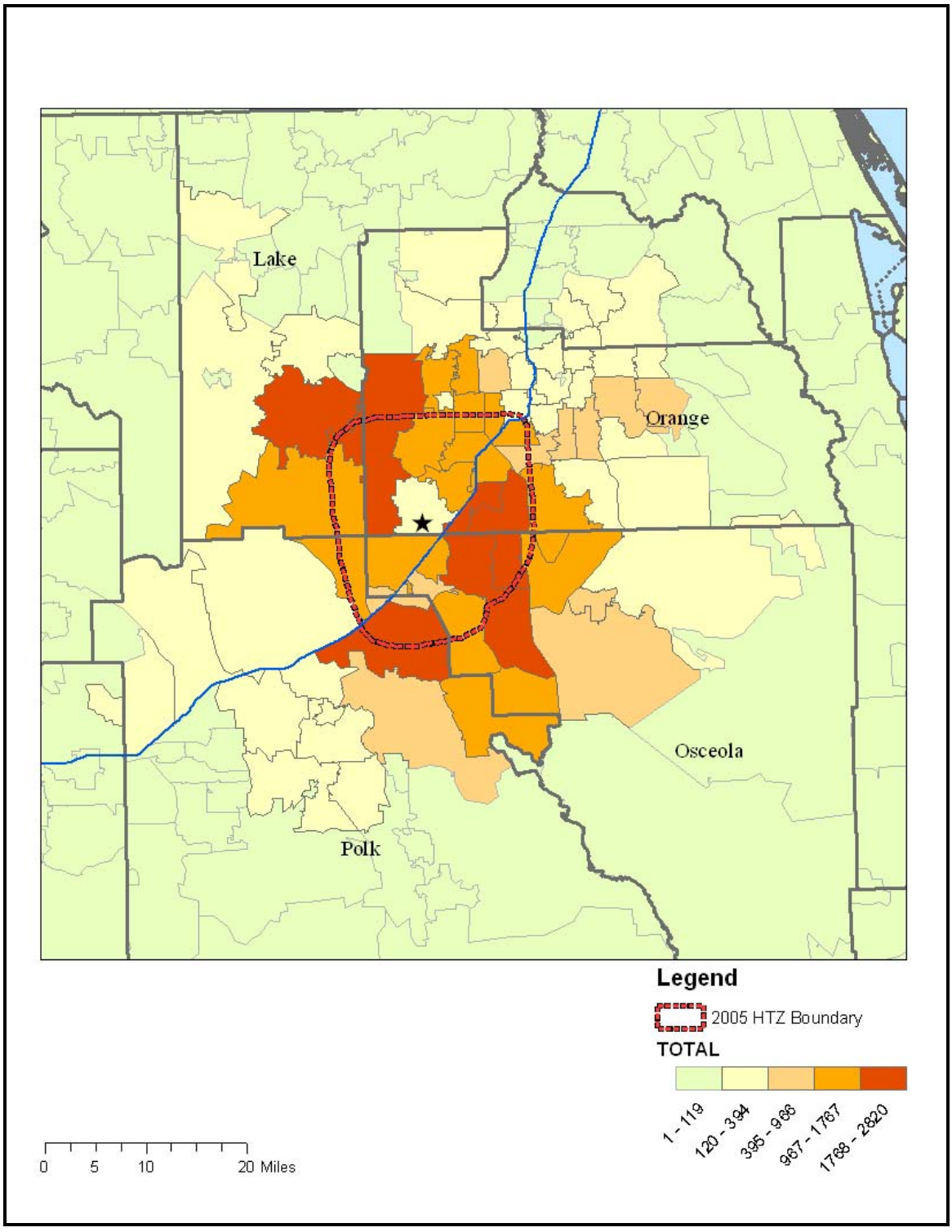
2.2 Housing Target Zone Boundary Update

The ECFRPC affordable housing methodology defines an appropriate HTZ boundary as the lesser of a 10-mile/20-minute drive time surrounding a site. This is a blanket methodology that is intended to represent an appropriate HTZ for an average employment generating business or development. The 10-mile/20-minute trade area takes into account average commute times in Florida and is generally considered the most appropriate methodology to use when evaluating the affordable housing supply available to an average business or development. As the largest single-site employer in the United States, Walt Disney World and the RCID do not represent an average business, and as such, Fishkind believes that the affordable housing impacts of the RCID should not be evaluated with respect to the 10-mile/20-minute distance/time limit. Because this employment center is so large and there is a very wide diversity of employees resulting in broad housing preferences, the 10-mile/20-minute limit should be expanded.

Taking into account the approved methodologies used to derive the HTZ boundary in the previously conducted analyses, Fishkind believes the most appropriate method by which to define the HTZ boundary is to evaluate the home-buying patterns of existing RCID employees. Due to the sheer size and magnitude of employment generation within the RCID, it is reasonable to conclude that the appropriate HTZ for the RCID is larger than what is typically considered appropriate for an average business. The home buying patterns of existing employees confirms this belief, as high concentrations of existing employees can be found in zip codes beyond the typical 10-mile/20-minute boundary.

A profile of existing RCID employee housing locations was provided by the Client and included a breakdown of employee housing by zip code. Appendix A provides the full housing zip code profile. Fishkind next generated a geographical profile highlighting the concentration of RCID employees within each zip code. As shown in Map 2.3, there exist a large number of zip codes beyond the 10-mile/20-minute boundary that contain greater than 1,000 RCID employees.

Map 2.3. Concentrations of RCID Employees by Housing Zip Code. (2008).



Due to the high concentration of employees beyond the 10-mile/20-minute trade area, Fishkind has determined that not all housing requirements and alternatives can be met within the 10-mile/20-minute boundary. Further, RCID employees are willing to purchase homes beyond the 10-mile/20-minute commute threshold due to the unique employment opportunities offered by businesses within the RCID. Thus, Fishkind has concluded that it is reasonable and appropriate to evaluate the affordable housing opportunities available to future RCID employment based on an HTZ that is larger than the 10-mile/20-minute drive time trade area. Furthermore, it is important to note that the current average commute time for the Orlando MSA is almost 27 minutes according to the United States Census Bureau.

Fishkind believes an analysis of the buying patterns of existing RCID employees provides a better basis upon which to define the HTZ boundary than does an analysis of average commute times or the usage of other variables and trends which are not necessarily specific to the RCID. As mentioned above, the RCID contains the largest single-site employer in the United States, which provides a very large sample size upon which buying patterns can be discerned.

Due to the sheer magnitude of employment within the RCID, the reliability of using the existing home buying patterns to determine the appropriate HTZ boundary is very high. Additionally, utilizing existing home buying patterns to determine the HTZ boundary takes into account the realistic transportation issues impacting the commutes of RCID employees, which is much more difficult to accomplish with other modeling techniques. Over time it is only natural for the existing employees to migrate to locations with more efficient access to the RCID and to migrate to locations that are economically sufficient given the commuting cost / salary trade-off. These home buying decisions are reflected in the employee concentrations shown in Map 2.3 above.

Although a number of shifting economic factors, such as increasing energy prices, could change the home buying preferences of RCID employees over time, Fishkind believes the likelihood of such a shift over the next five years is limited for two main reasons: (1) the employment base of the RCID is simply to large to be fully accommodated within a typical 10-mile/20-minute radius and (2) Fishkind's experience shows that, in most cases, commuting costs have less relative value in home buying decisions than do commuting times, school districts, neighborhoods, location, etc. In other words, it is unlikely that gas prices, in the near-term, will surpass the threshold required to increase the priority of commuting costs in the home buying decision process.

In defining the revised HTZ boundary, Fishkind utilized only the orange and red colored zip codes in Map 2.3, which are the zip codes containing more than 967 employees. These zip codes represent the areas where, in Fishkind's opinion, a large enough number of employees are concentrated to deem that area appropriate for the expectation of cost appropriate housing. The zip codes with less than 967 employees do not contain a large enough concentration to warrant such a distinction. These zip codes are more remote and do not contain the critical mass of employees necessary to be considered a location appropriate for the majority of RCID employees. In other words, because nearly 60% of RCID employees live in the orange and red colored zip codes, Fishkind is confident in assuming that these zip codes represent locations where the commuting/housing costs to salary trade-off is in equilibrium for RCID employees.

Although Fishkind believes that the potential for rising commuting costs will not impact the home buying decisions of RCID employees in the near term, the determination of the HTZ does implicitly take into account this possibility by eliminating 40% of the areas where RCID employees currently reside. Map 2.4 provides Fishkind's revised HTZ boundary and compares it to the 1996 and 2005 HTZ boundaries.

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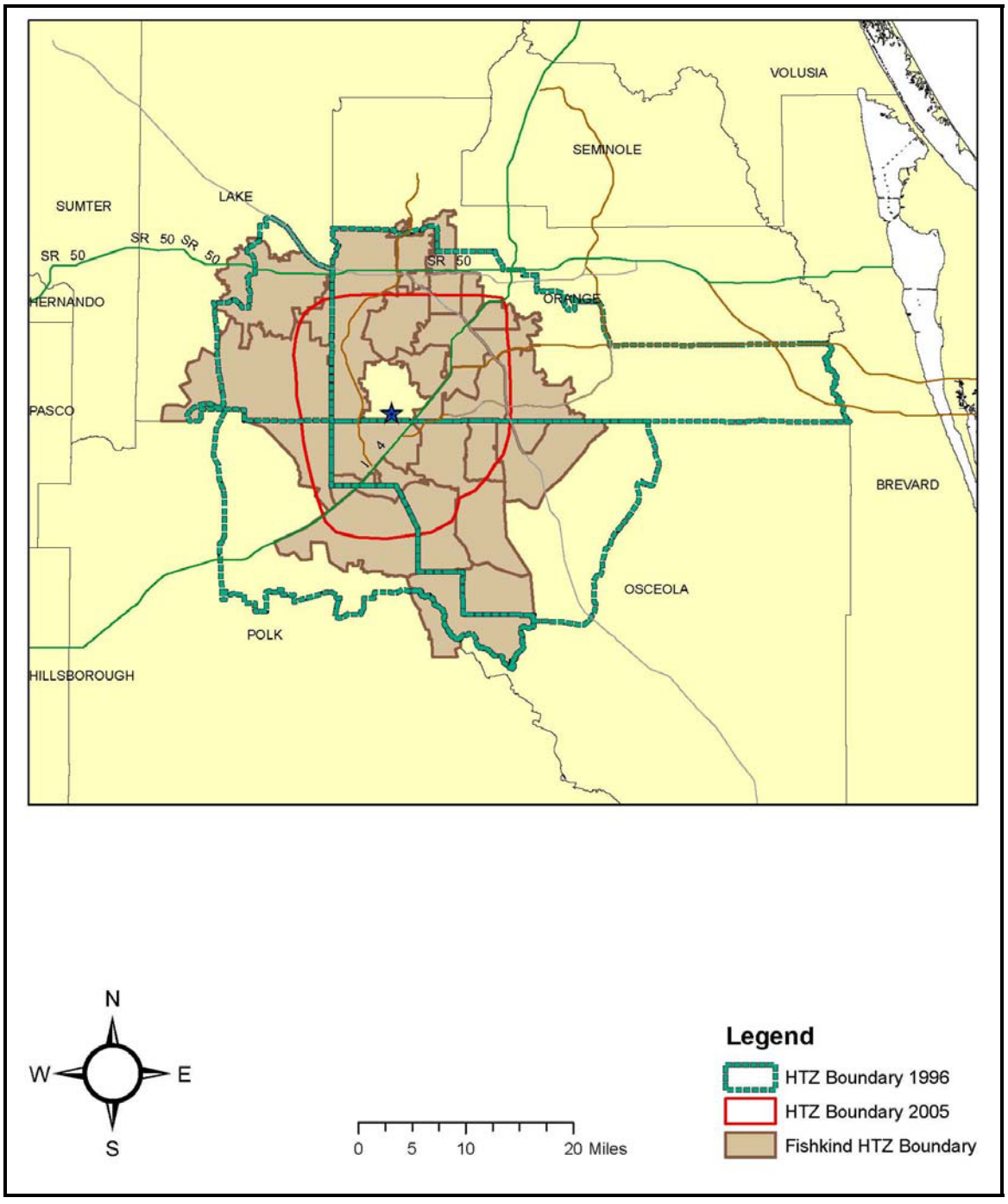
Map 2.4. Fishkind HTZ Boundary. (2008).



2.3 Housing Target Zone Demographic Profile

Fishkind conducted a detailed analysis of the demographics of the Fishkind HTZ and compared these demographics to those of the greater Orlando MSA. The Orlando MSA includes all of Orange, Seminole, Osceola, and Lake Counties. The 2008 demographic profile was estimated utilizing both United States Census data as well as the on-line census based software program, I-site by Geovue. In some cases, Fishkind was required to conduct additional analysis on the two datasets to arrive at the appropriate time adjusted figures.

Population, Gender and Race

The Fishkind designated HTZ boundary contains a population of just over 725,000 with roughly 266,000 households. The average number of persons per household in the HTZ is 2.73. In comparison, the Orlando MSA has a population of over 2 million with almost 811,000 households. The average number of persons per household within the greater Orlando MSA is 2.59.

The split of males to females is roughly equivalent in each trade area at 50% male to 50% female. The race breakdown is also comparable for each of the trade areas with the Orlando MSA containing 6% more whites, but 4% less blacks and other races. The percentage of Hispanics within the HTZ is considerably greater at 31% as compared to 22% for the MSA.

Table 2.1 provides the population, gender, and race profile.

Table 2.1. Population, Gender and Race.

	2008 HTZ	%	2008 MSA	%
Population	726,648		2,099,701	
Households	266,444		810,851	
Persons Per Household	2.73		2.59	
Male	362,684	50%	1,039,652	50%
Female	363,966	50%	1,060,048	50%
Race: White	473,047	65%	1,490,884	71%
Race: Black	124,768	17%	310,240	15%
Race: Asian or Pacific Islander	34,982	5%	81,723	4%
Race: Other Race	62,045	9%	139,952	7%
Race: Two or More Races	31,807	4%	76,885	4%
Ethnicity: Hispanic	223,065	31%	468,901	22%

Source: United States Census Bureau. Isite by Geovue. Fishkind and Associates, Inc.

Age Distribution

The median age of residents within the Orlando MSA is slightly higher than that of the HTZ at 37 and 35, respectively. The overall distribution of residents by age bracket is almost identical for both of the trade areas. In each case, roughly 35% of residents are younger than 25 with 44% of residents aged between 25 and 54 years old. Residents older than 55 make up approximately 21% of each of the trade areas.

Table 2.2 provides the age distribution profile.

Table 2.2. Age Distribution.

	2008 HTZ	%	2008 MSA	%
Age 0-4	55,317	8%	143,971	7%
Age 5-9	51,745	7%	139,536	7%
Age 10-13	41,065	6%	113,642	5%
Age 14-17	41,652	6%	114,563	5%
Age 18-24	67,126	9%	197,150	9%
Age 25-34	110,447	15%	288,232	14%
Age 35-44	112,385	15%	310,055	15%
Age 45-54	102,964	14%	299,709	14%
Age 55-64	72,508	10%	221,412	11%
Age 65-74	42,915	6%	147,300	7%
Age 75-84	21,572	3%	91,141	4%
Age 85+	7,153	1%	32,835	2%
Median Age	35		37	

Source: United States Census Bureau. Isite by Geovue. Fishkind and Associates, Inc.

Household Income

The median household income for each trade area is very similar at roughly $57,000, while the average household income of the HTZ is 11% greater than that of the Orlando MSA. The average household income of the HTZ in 2008 is estimated to be just under $67,000 as compared to just under $61,000 for the MSA. The distribution of households by household income is also very comparable with over 50% of households making greater than $50,000 and roughly 30% making less than $35,000. In both trade areas, only 18% of the households had a household income above $100,000.

Table 2.3, on the following page, provides the household income distribution profile.

Table 2.3. Household Income Distribution.

	2008 HTZ	%	2008 MSA	%
Median Household Income	$ 57,731		$ 56,189	
Average Household Income	$ 66,893		$ 60,977	
HH Inc. $ 0 - $ 15k	24,063	9%	82,519	10%
HH Inc. $15 - $ 25k	26,669	10%	84,303	10%
HH Inc. $25 - $ 35k	31,621	12%	93,840	12%
HH Inc. $35 - $ 50k	44,256	17%	131,625	16%
HH Inc. $50 - $ 75k	58,937	22%	173,658	21%
HH Inc. $75 - $100k	34,423	13%	100,987	12%
HH Inc. $100k - $150	28,494	11%	87,855	11%
HH Inc. $150 - $200k	8,426	3%	26,338	3%
HH Inc. $200K+	9,560	4%	29,724	4%

Source: United States Census Bureau. Isite by Geovue. Fishkind and Associates, Inc.

Education

Roughly 24% of the residents within the HTZ and the MSA have at least a bachelor's degree, while less than 20% do not have at least a high school diploma. Just over 50% of the residents have at least some college education in both trade areas. The overall distribution of education for both trade areas is very similar.

Table 2.4 provides the distribution of educational attainment for the HTZ and MSA trade areas.

Table 2.4. Education.

	2008 HTZ	%	2008 MSA	%
Education: Less than 9th Grade	26,340	6%	70,404	5%
Education: Some High School	62,380	13%	167,188	12%
Education: High School Graduates	129,066	28%	379,364	28%
Education: Some College	103,616	22%	311,309	23%
Education: Associate's Degree	36,018	8%	108,514	8%
Education: Bachelor's Degree	76,539	16%	236,199	17%
Education: Graduate School	30,661	7%	105,791	8%

Source: United States Census Bureau. Isite by Geovue. Fishkind and Associates, Inc.

Housing Units, Tenure and Status

The HTZ currently contains roughly 303,000 housing units of which just over 265,000 are occupied units. In contrast, the MSA contains over 923,000 housing units of which just under 811,000 are occupied. The occupancy rate for both the HTZ and the MSA is 88%. Of occupied units within the HTZ, 64% are owner occupied while 36% are renter occupied. The MSA has a slightly higher percentage of home ownership at 67% of occupied units. The HTZ has a total of 170,845 owner occupied units and 95,599 renter occupied housing units. The MSA contains 540,306 owner occupied housing units and 270,545 renter occupied housing units.

Table 2.5 provides the housing units, tenure and status of housing units within both the HTZ and the MSA.

Table 2.5. Housing Units, Tenure, and Status.

	2008 HTZ	%	2008 MSA	%
Total Housing Units	303,422		923,545	
Occupied Units	266,444	88%	810,851	88%
Vacant Units	36,977	12%	112,694	12%
Owner Occupied	170,845	64%	540,306	67%
Renter Occupied	95,599	36%	270,545	33%

Source: United States Census Bureau. Isite by Geovue. Fishkind and Associates, Inc.

Housing Year Built

On average, housing units within the HTZ are newer than those located within the greater MSA. Roughly 34% of all homes in the HTZ were built after 2000, while only 27% of homes within the MSA were built after 2000. Additionally, 62% of the homes in the HTZ were built after 1990. In contrast, only 48% of homes in the MSA were built after 1990. On the other end of the spectrum, 10% of homes in the HTZ were built before 1970, while 14% of homes in the MSA were built before 1970.

Table 2.6, on the following page, provides the breakdown of the year built for housing within the HTZ and MSA trade areas.

Table 2.6. Housing Year Built.

	2008 HTZ	%	2008 MSA	%
Built 2000 - 2008	102,980	34%	248,847	27%
Built 1990 - 1999	84,314	28%	192,012	21%
Built 1980 - 1989	59,325	20%	202,066	22%
Built 1970 - 1979	29,030	10%	133,576	14%
Built 1960 - 1969	14,503	5%	60,020	6%
Built 1950 - 1959	8,067	3%	55,010	6%
Built 1940 - 1949	2,640	1%	14,321	2%
Built 1939 or earlier	2,563	1%	17,693	2%

Source: United States Census Bureau. Isite by Geovue. Fishkind and Associates, Inc.

Units in Structure

The breakdown of number of units in structure is roughly identical between the HTZ and the MSA. In both cases, 60% of the units are single family detached with the remaining units distributed across single family attached, various sized multi-family products, mobile homes, and other housing types. In both cases, roughly 7% of housing units are located within structures containing 20 or more units. The total number of single family units within the HTZ is just under 183,000, while the total number of single family units within the MSA is just over 552,000.

Table 2.7 provides the breakdown of housing units by the number of units in the structure.

Table 2.7. Units in Structure.

	2008 HTZ	%	2008 MSA	%
Units in Structure: 1; detached	182,913	60%	552,248	60%
Units in Structure: 1; attached	12,292	4%	40,894	4%
Units in Structure: 2	3,808	1%	16,925	2%
Units in Structure: 3 - 4	11,173	4%	34,009	4%
Units in Structure: 5 - 9	21,753	7%	63,063	7%
Units in Structure: 10 - 19	27,718	9%	72,436	8%
Units in Structure: 20 or more	22,071	7%	66,072	7%
Units in Structure: Mobile home	20,359	7%	77,124	8%
Units in Structure: Boat; RV; Van; etc.	775	0%	774	0%

Source: United States Census Bureau. Isite by Geovue. Fishkind and Associates, Inc.

Number of Bedrooms

The vast majority of housing units within both the HTZ and the MSA contain either 2 or 3 bedrooms. In both cases, an average of 66% of the housing units contain either 2 or 3 bedrooms. This amounts to 195,182 units within the HTZ and 618,791 units within the MSA. Additionally, 31,500 or 10% of the HTZ housing units and 90,500 or 10% of the MSA housing units contain only one bedroom. Table 2.8 provides the breakdown of housing units for the HTZ and the MSA by number of bedrooms.

Table 2.8. Number of Bedrooms.

	2008 HTZ	%	2008 MSA	%
Number of Bedrooms: No bedroom	2,241	1%	5,733	1%
Number of Bedrooms: 1 bedroom	31,512	10%	90,456	10%
Number of Bedrooms: 2 bedrooms	77,728	26%	259,183	28%
Number of Bedrooms: 3 bedrooms	117,454	39%	359,608	39%
Number of Bedrooms: 4 bedrooms	63,481	21%	178,429	19%
Number of Bedrooms: 5+ bedrooms	11,005	4%	30,136	3%

Source: United States Census Bureau. Isite by Geovue. Fishkind and Associates, Inc.

Means of Transportation to Work

The transportation base for the HTZ (all workers older than 16) is 358,296 workers or 49% of the total population. Of this group, 80% drive alone to their workplace and 14% carpool. Only 2% of workers within the HTZ utilize public transportation, while 1% either bike or walk to work. The MSA contains 1.15 million workers of which 81% drive alone to work and 12% carpool to work. Like the HTZ only 2% of the MSA workers utilize public transportation and 2% use either a bicycle or walk to work. Table 2.9 provides a breakdown of the various means of travel to work for workers within the HTZ and MSA trade areas.

Table 2.9. Means of Transportation to Work.

	2008 HTZ	%	2008 MSA	%
Transportation Base: Workers Age 16+	358,296	49%	1,154,836	55%
Drove alone	285,034	80%	930,581	81%
Carpooled	49,708	14%	139,699	12%
Public Trans.: Bus, Trolley, Train	6,188	2%	18,465	2%
Taxi Cab	414	0%	1,053	0%
Motorcycle	792	0%	2,760	0%
Bicycle or Walked	5,091	1%	19,816	2%
Other Means	2,947	1%	9,423	1%
Worked at Home	8,116	2%	33,040	3%

Source: United States Census Bureau. Isite by Geovue. Fishkind and Associates, Inc.

Travel Time to Work

Within the HTZ, 7% of workers travel less than 10 minutes to their place of work, while 26% travel between 10 and 19 minutes. Approximately 52% of workers in the HTZ travel between 20 minutes and 44 minutes to their place of work and only 5% travel more than one hour. The average travel times for the MSA are comparable to those found within the HTZ.

Table 2.10 provides a breakdown of the travel time to work indicated by workers within the HTZ and MSA trade areas.

Table 2.10. Travel Time to Work.

	2008 HTZ	%	2008 MSA	%
Travel Time to Work: 0 - 10 minutes	26,418	7%	103,561	9%
Travel Time to Work: 10 - 19 minutes	93,112	26%	301,795	26%
Travel Time to Work: 20 - 29 minutes	92,736	26%	258,874	22%
Travel Time to Work: 30 - 44 minutes	92,897	26%	289,293	25%
Travel Time to Work: 45 - 59 minutes	25,994	7%	98,686	9%
Travel Time to Work: 60 - 89 minutes	11,757	3%	44,670	4%
Travel Time to Work: 90+ minutes	7,269	2%	24,919	2%
Travel Time to Work: Worked at home	8,116	2%	33,040	3%

Source: United States Census Bureau. Isite by Geovue. Fishkind and Associates, Inc.

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3.0 RCID Affordable Housing Demand

3.1 Historical RCID Employment Growth

The first step in determining the affordable housing impacts of future RCID employment was to project the annual number of employees that will be generated within the RCID over the next five years. To accomplish this task, an analysis of historical employment growth within the RCID was conducted, upon which the analysis of future employment was based.

The Client provided Fishkind with the total number of employees within the RCID as of 1998, 2003 and 2007. The employee totals were broken down into three categories: (1) Walt Disney World employees, (2) Other Operating Participants within the RCID, and (3) employees of the RCID. The Walt Disney World employment figures were further broken down into three classes of employment: (1) full-time, (2) casual regular and (3) casual temporary. The full-time category represents those employees who work at Walt Disney World on a full-time basis. The casual regular category represents those employees who only work part-time, but do so on a regular basis. Finally, the casual temporary category represents those employees who work part-time, but only on a temporary basis.

For the purposes of this affordable housing analysis, Fishkind has concluded that only the full-time and casual regular employees should be included. It is Fishkind's belief, that the vast majority of full-time and a large number of the casual regular employees will make their home buying decision based on their place of employment. In contrast, the casual temporary employees will generally choose to work at an establishment, because it is near their home, and not vice versa. As such, the generation of new casual temporary employees does not create demand for affordable housing, because those employees already have housing in a location suitable for commuting to the establishment. New full-time and new casual regular employees, on the other hand, are likely to generate demand for affordable housing, because they represent a new household in the market that was not there prior to the creation of the job.

Table 3.1, on the following page, provides the employee breakdown and totals for the RCID. The casual temporary employees are shown in the tables, but are not included in the sum calculations.

Table 3.1. RCID Employment Breakdown.

	1998	2003	2007
Walt Disney World	46,662	43,089	51,717
Full Time	36,354	32,430	36,236
Casual Regular	7,429	7,048	9,343
Casual Temporary	2,880	3,611	6,138
Operating Participants	11,040	12,000	13,000
RCID	246	255	301
Total (minus Casual Temporary)	55,069	51,734	58,880

Source: Reedy Creek Improvement District.

As shown in Table 3.1, the RCID contained just over 55,000 employees in 1998. Between 1998 and 2003, the District lost over 3,000 jobs bringing the total employee count to just under 52,000. The loss of jobs was likely in response to the terrorist attacks of September 11, 2001, which drastically impacted tourist travel across the Country and to Orlando specifically. As the impacts of the terrorist attacks began to subside and tourist activity rebounded beyond 2003, so too did employment growth within the RCID. From 2003 to 2007, the RCID gained 7,000 jobs, which effectively erased all of the job loss occurring immediately after September 11 and added an additional 3,000 jobs.

3.2 Future RCID Employment Growth

The significant job loss immediately following September 11 makes the task of projecting future employment growth difficult, as a straight line employment growth analysis cannot be conducted. The growth from 1998 to 2007 is severely understated due to the job loss following September 11, while the job growth from 2003 to 2008 is severely overstated as during that time period the RCID was forced to replace all of the jobs that were lost after 2001 in addition to having to add new jobs at a heightened pace to respond to the newly robust economy.

To account for the irregularities in the historical data, Fishkind calculated the average annual growth from 1998 to 2007 and the average annual growth from 2003 to 2007 and then took the average of these two averages to determine what the annual employment growth should be under normal economic conditions. From 1998 to 2007, the RCID grew by an average of 423 employees annually. Likewise, from 2003 to 2007, the RCID grew by an annual average of 1,787 employees. Taking the average of 423 and 1,787 results in growth of 1,105 employees per year. For the purposes of this analysis, Fishkind has projected that the RCID will grow by 1,105 employees per year over the next 5-years. The future employment growth calculations are shown below in Table 3.2.

Table 3.2. RCID Future Employment Breakdown.

	Growth
1998	55,069
2003	51,734
2007	58,880
Avg. 1998-2007	423
Avg. 2003-2007	1,787
Avg. Annual Projected Growth	1,105

Source: Fishkind and Associates, Inc.

Having determined the annual number of employees expected to be generated by the RCID over the next five years, the next step in the affordable housing analysis was to determine the average wages for each of the newly generated employees. Utilizing Costar, an on-line commercial real estate company providing the industry's most comprehensive commercial real estate database, Fishkind was able to determine the distribution of employees by industry within the RCID. This existing employee distribution was then applied to the 1,105 new annual employees calculated above to estimate the industry breakdown for future RCID employees. Next, utilizing ES-202 wage data provided by the Florida Agency of Workforce Innovation, Fishkind matched each employee category from Costar with a North American Industrial Classification System (NAICS) code in the ES-202 data and then assigned an average wage to each employee category. Finally, Fishkind distributed the employees in each category around the mean wage for that category utilizing the standard bell curve or normal distribution.

Table 3.3 provides the percentage breakdown of existing employees by industry within the RCID, the application of that percentage breakdown to the 1,105 projected annual future employees, and the ES-202 based mean wages associated with each employee category.

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Table 3.3. RCID Employment Distribution and Mean Wage by Industry.

Employment Category	Total Employees	Distribution	Annual Growth	ES-202 Avg. Wage
Total Retail	14,917	**27%**	**294**	
Home Improvement Stores	154	0.28%	3	$33,704
General Merchandise Stores	1,127	2.01%	22	$21,368
Food Stores	554	0.99%	11	$21,632
Auto Dealers & Service Stations	217	0.39%	4	$33,016
Apparel & Accessory Stores	1,105	1.97%	22	$16,920
Home Furniture, Furnishings & Equipment	163	0.29%	3	$33,704
Eating & Drinking Places	10,146	18.09%	200	$17,744
Miscellaneous Retail	1,452	2.59%	29	$25,480
Financial/Insurance/Real Estate	1,778	**3%**	**35**	
Banks, Saving & Lending Institutions	326	0.58%	6	$68,036
Securities Brokers and Investments	85	0.15%	2	$68,036
Insurance Carriers & Agencies	56	0.10%	1	$67,860
Real Estate/Trust/Holding Companies	1,311	2.34%	26	$48,628
Services	35,241	**63%**	**694**	
Hotels & Lodging	21,575	38.47%	425	$26,084
Personal Services	1,030	1.84%	20	$24,156
Business Services	841	1.50%	17	$53,508
Motion Picture & Amusement	8,178	14.58%	161	$29,512
Health Services	515	0.92%	10	$51,644
Legal Services	19	0.03%	-	$110,252
Education Services	600	1.07%	12	$43,400
Social Services	556	0.99%	11	$24,408
Other Services	1,929	3.44%	38	$28,804
Agriculture/Mining	84	0.15%	**2**	$23,820
Construction	1,163	2.07%	**23**	$50,044
Manufacturing	308	0.55%	**6**	$58,712
Transp/Commun/Pub Util	878	1.57%	**17**	$36,412
Wholesale Trade	239	0.43%	**5**	$56,044
Government	1,477	2.63%	**29**	$43,944
Total	56,085		1,105	

Source: Costar Group. 2008. Florida Agency of Workforce Innovation.

3.3 Future RCID Affordable Housing Demand

The final two steps in determining the affordable housing demand generated by the RCID over the next five years were to (1) distribute the employees in each category around the mean wage for that category utilizing a normal distribution and then (2) utilizing regionally specific household headship rates and single vs. multi worker household rates by income level, translate the annual employee generation into an annual demand for affordable housing by household income.

Affordable housing impacts are evaluated based on the net demand for affordable housing created within three income categories: (1) very low, (2) low and (3) moderate. The three income categories are based on multiples of the median household income for the Orlando MSA published by the U.S. Department of Housing and Urban Development (HUD). This figure is currently $59,200. Households in the very low income category are defined as having incomes of less than 50% of the median income for the area. Households in the low category have incomes of between 50% and 80% of the median income for the area. Households in the moderate income category have incomes of between 80% and 120% of the median income for the area. All households with incomes above 120% of the median household income are not considered to be in the "affordable housing" range.

The ECFRPC produces an affordable housing model which contains all of the formulas and rates necessary to translate employee generation into affordable housing demand. Fishkind obtained the 2008 Orange County affordable housing model from the ECFRPC and utilized it in this analysis. A unique ECFRPC affordable housing model was used for each of the 27 employee categories and then the affordable housing totals for each model were aggregated to arrive at a total demand figure by income category. Table 3.4, on the following page, shows an example ECFRPC model for the Hotels and Lodging employment category. Appendix B provides each of the 27 employee category housing models.

As shown in Table 3.4, the 425 hotel and lodging employees that will be generated on an annual basis within the RCID have been distributed around the mean wage for hotels and lodging ($26,084). Using the income appropriate head of household rates for the Orlando MSA, the 425 hotel employees were converted into 192 heads of household. Put another way, the 425 annual RCID hotel employees will generate annual demand for 192 households. These 192 households were further broken down into single, 2-worker, and 3-worker households and the HH incomes for each category were subsequently adjusted to reflect the increased income received from the additional household workers.

Table 3.4. Affordable Housing Model for Hotels and Lodging.

Hotels and Lodging												
Average Wage	$26,084											
Employees	425											
Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	33	$521,763	13	7	$15,811	5	$27,653	1	$35,006
Very Low	$17,500	$19,999	$18,750	34	$637,483	14	7	$18,750	5	$32,793	1	$41,511
Very Low	$20,000	$22,499	$21,250	51	$1,083,725	21	11	$21,250	8	$37,165	2	$47,046
Very Low	$22,500	$24,999	$23,750	65	$1,543,718	26	14	$23,750	10	$41,538	2	$52,581
Very Low	$25,000	$27,499	$26,250	70	$1,837,465	28	15	$26,250	11	$45,910	2	$58,116
Very Low	$27,500	$29,599	$28,550	54	$1,541,673	22	11	$28,550	9	$49,933	2	$63,209
Low	$29,600	$32,499	$31,050	58	$1,800,871	33	13	$31,050	16	$54,306	4	$68,744
Low	$32,500	$34,999	$33,750	31	$1,046,235	18	7	$33,750	9	$59,028	2	$74,721
Low	$35,000	$37,499	$36,250	17	$616,242	10	4	$36,250	5	$63,400	1	$80,256
Low	$37,500	$39,999	$38,750	8	$309,996	5	2	$38,750	2	$67,773	1	$85,791
Low	$40,000	$42,499	$41,250	3	$123,749	2	1	$41,250	1	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	1	$43,750	1	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Source: East Central Florida Regional Planning Council. Fishkind and Associates, Inc.

The next step in the analysis was to total the number of households generated in each employee category by income category. As shown in Table 3.5, on the following page, the RCID will generate 1,105 employees on an annual basis who will earn salaries falling within the very low, low, or moderate categories. These employees will generate demand for 524 annual households, of which, 464 annual households will fall within the very low, low or moderate categories.

Having determined the total number of households generated on an annual basis within each income category, Fishkind next determined the average home price and rental rate that should be deemed as "affordable" to the households within each of the income categories.

To establish the affordable rental rates, Fishkind has assumed that household costs should account for 30% of a household's annual salary. Thus, Fishkind took the median wage for each income category and multiplied it by 30%. This figure was then divided by 12 to arrive at a monthly cost. Finally, a $100.00 utility allowance was applied to arrive at the final monthly rental rate.

To establish the affordable housing price, Fishkind once again assumed that house payments should account for 30% of a household's annual salary. Thus, Fishkind took the median wage for each income category and multiplied it by 30%. This figure was then divided by 12 to arrive at a monthly cost. The monthly figure was then adjusted to account for taxes and insurance, which were set at 25% of the total monthly cost. Next a total mortgage amount was calculated utilizing the following financing assumptions: 7% interest rate, 30-year term, no points. Finally, a down payment of 5% of was assumed.

Table 3.6 provides the home prices and rental rates associated with each income category.

Table 3.5. Annual Affordable Housing Demand for All Employment Categories.

All Employment Categories												
Employees	1,105											
Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	162	$2,561,382	66	34	$15,811	26	$27,653	6	$35,006
Very Low	$17,500	$19,999	$18,750	88	$1,649,956	36	18	$18,750	14	$32,793	3	$41,511
Very Low	$20,000	$22,499	$21,250	111	$2,358,695	45	23	$21,250	18	$37,165	4	$47,046
Very Low	$22,500	$24,999	$23,750	124	$2,944,938	50	26	$23,750	20	$41,538	4	$52,581
Very Low	$25,000	$27,499	$26,250	127	$3,333,687	52	27	$26,250	20	$45,910	4	$58,116
Very Low	$27,500	$29,599	$28,550	100	$2,854,950	41	21	$28,550	16	$49,933	4	$63,209
Low	$29,600	$32,499	$31,050	113	$3,508,594	65	25	$31,050	31	$54,306	8	$68,744
Low	$32,500	$34,999	$33,750	70	$2,362,465	40	16	$33,750	19	$59,028	5	$74,721
Low	$35,000	$37,499	$36,250	43	$1,558,729	25	10	$36,250	12	$63,400	3	$80,256
Low	$37,500	$39,999	$38,750	29	$1,123,736	17	6	$38,750	8	$67,773	2	$85,791
Low	$40,000	$42,499	$41,250	19	$783,741	11	4	$41,250	5	$72,145	1	$91,326
Low	$42,500	$44,999	$43,750	18	$787,491	10	4	$43,750	5	$76,518	1	$96,861
Low	$45,000	$47,359	$46,180	17	$785,052	10	4	$46,180	5	$80,768	1	$102,241
Moderate	$47,360	$49,999	$48,680	18	$876,231	12	5	$48,680	6	$85,140	2	$107,776
Moderate	$50,000	$52,499	$51,250	18	$922,491	12	5	$51,250	6	$89,635	2	$113,466
Moderate	$52,500	$54,999	$53,750	14	$752,493	9	4	$53,750	4	$94,008	1	$119,001
Moderate	$55,000	$57,499	$56,250	11	$618,745	7	3	$56,250	3	$98,380	1	$124,536
Moderate	$57,500	$59,999	$58,750	8	$469,996	5	2	$58,750	3	$102,753	1	$130,071
Moderate	$60,000	$62,499	$61,250	5	$306,248	3	1	$61,250	2	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	3	$191,249	2	1	$63,750	1	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	3	$198,749	2	1	$66,250	1	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	4	$277,078	3	1	$69,270	1	$121,152	0	$153,363
Total				1,105		524						

Source: East Central Florida Regional Planning Council. Fishkind and Associates, Inc.

Table 3.6. Home Price/Rental Rate Conversions.

Income Group	Wage Ranges		Wage	Home Price	Monthly Rent
	Low	High	Midpoint		
Very Low	$14,123	$17,499	$15,811	$46,905	$295
Very Low	$17,500	$19,999	$18,750	$55,622	$369
Very Low	$20,000	$22,499	$21,250	$63,039	$431
Very Low	$22,500	$24,999	$23,750	$70,455	$494
Very Low	$25,000	$27,499	$26,250	$77,872	$556
Very Low	$27,500	$29,599	$28,550	$84,695	$614
Low	$29,600	$32,499	$31,050	$92,111	$676
Low	$32,500	$34,999	$33,750	$100,121	$744
Low	$35,000	$39,999	$37,500	$111,246	$837
Low	$40,000	$44,999	$42,500	$126,079	$962
Low	$45,000	$47,499	$46,250	$137,204	$1,056
Moderate	$47,500	$52,499	$50,000	$148,328	$1,150
Moderate	$52,500	$57,499	$55,000	$163,161	$1,275
Moderate	$57,500	$62,499	$60,000	$177,994	$1,400
Moderate	$62,500	$67,499	$65,000	$192,827	$1,525
Moderate	$67,500	$72,500	$70,000	$207,662	$1,650

Source: Fishkind and Associates, Inc.

The next step in Fishkind's demand analysis was to determine the breakdown of for-sale demand versus for-rent demand generated by the project utilizing a multi-step process. The first step involved the use of the Consumer Expenditure Survey (CES), which is created by the US Department of Labor: Bureau of Labor Statistics. The CES dataset provides the rent vs. own split by household income on a national level. As such, the CES dataset is an average of all households, so the mix of ages within the dataset is consistent with the nation as a whole.

The jobs generated by the RCID, however, will have an entirely different age mix than the nation as a whole; therefore, the rent/own splits must be adjusted to appropriately reflect the age make up of the RCID employment. In other words, just as higher income levels are more likely to own than rent, households with older residents are also more likely to own than rent, regardless of income.

Fishkind conducted an analysis of retail and office employees within each age group, then utilized the CES rent vs. own splits by household income AND by household age. In this way the rent/own splits are weighted not just by income, but also by age. These rent/own splits are then applied to the demand created in each respective income category shown above in Table 3.5. Table 3.7 shows the rent versus own splits for each income group.

Table 3.7. RCID Rent versus Own Splits.

	Rent %	Own %
Very Low	70%	30%
Low	60%	40%
Moderate	40%	60%

Source: Fishkind and Associates, Inc.

By applying the rent/own splits provided in Table 3.7 to the total demand figures shown in Table 3.5, Fishkind determined the breakdown of demand for for-sale housing product and for-rent housing product that will be generated by the RCID. Table 3.8, on the following page, provides the breakdown of annual household demand for for-rent and for-sale product by income category.

Table 3.8. Breakdown of Annual RCID Household Demand by For-Sale and For-Rent Product.

Income Group	Wage Ranges		Midpoint	Home Price	Monthly Rent	For-Sale Household Demand	For-Rent Household Demand	Total Household Demand
	Low	High						
Very Low	$14,123	$17,499	$15,811	$46,905	$295	10	24	34
Very Low	$17,500	$19,999	$18,750	$55,622	$369	6	12	18
Very Low	$20,000	$22,499	$21,250	$63,039	$431	7	16	23
Very Low	$22,500	$24,999	$23,750	$70,455	$494	8	18	26
Very Low	$25,000	$27,499	$26,250	$77,872	$556	8	19	27
Very Low	$27,500	$29,599	$28,550	$84,695	$614	14	33	47
Low	$29,600	$32,499	$31,050	$92,111	$676	10	15	25
Low	$32,500	$34,999	$33,750	$100,121	$744	12	18	30
Low	$35,000	$39,999	$37,500	$111,246	$837	16	24	40
Low	$40,000	$44,999	$42,500	$126,079	$962	13	18	31
Low	$45,000	$47,499	$46,250	$137,204	$1,056	11	17	28
Moderate	$47,500	$52,499	$50,000	$148,328	$1,150	16	10	26
Moderate	$52,500	$57,499	$55,000	$163,161	$1,275	25	17	42
Moderate	$57,500	$62,499	$60,000	$177,994	$1,400	16	11	27
Moderate	$62,500	$67,499	$65,000	$192,827	$1,525	10	7	17
Moderate	$67,500	$72,500	$70,000	$207,662	$1,650	14	9	23
Total						196	268	464

Source: Fishkind and Associates, Inc.

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4.0 Housing Target Zone Affordable Housing Demand

4.1 HTZ Employment Growth

In Section 3.0, Fishkind projected the annual volume of households within the very low, low and moderate income categories that will be generated by the RCID. The goal of Fishkind's affordable housing analysis is to determine if there exists adequate affordable housing supply within the HTZ to satisfy all of the demand created by the RCID. To appropriately determine if adequate housing exists within the HTZ, it is necessary to determine the additional annual demand for affordable housing that will be generated by non-RCID employees within the HTZ. Put another way, the total demand for affordable housing within the HTZ (RCID generated and non-RCID generated) must be compared to the supply of affordable housing within the HTZ to determine the true affordable housing impacts of RCID employment.

The first step in determining the affordable housing impacts of future HTZ employment was to project the annual number of employees that will be generated within the HTZ over the next five years. To accomplish this task, an analysis of historical employment growth within the HTZ was conducted, upon which the analysis of future employment was based. Fishkind first utilized ES-202 data to determine the historical growth of employment within the Orlando MSA. ES-202 data is only provided on a countywide level; therefore, it was necessary to determine the total growth for the Orlando MSA (Orange, Seminole, Osceola, and Lake Counties) and then to estimate what percentage of the total MSA growth occurred within the boundaries of the HTZ utilizing data provided by I-site by Geovue.

According to historical ES-202 records, the Orlando MSA contained roughly 864,000 employees in 2001 and just over 1 million employees in 2007. The average annual growth of employees between 2001 and 2007 was just over 27,000 employees per year. Fishkind next utilized I-site by Geovue, a census based geographic modeling program, to estimate the percentage of historical Orlando MSA employment growth that occurred within the HTZ. According to the I-site program, approximately 35% of historical growth within the Orlando MSA occurred within the boundaries of the HTZ. Thus, Fishkind has concluded that between 2001 and 2007 35% of MSA growth or an average of 9,600 employees were created annually within the HTZ. Based on this analysis, Fishkind projects that annual employee growth in the future will average roughly 9,600 employees per year; however, 1,105 of those employees were already included in the RCID analysis; therefore the net growth in the HTZ is projected to be 8,493 employees. The future employment growth calculations are shown below in Table 4.1.

Table 4.1. Future HTZ Employment Growth.

	Orlando MSA
2001 Employees	864,171
2007 Employees	1,027,043
Annual Growth 2001-2007	27,145
HTZ %	35%
HTZ Annual Growth	9,598
RCID Annual Growth	1,105
Net HTZ Annual Growth	8,493

Source: ES-202. I-site by Geovue.

Having determined the annual number of employees expected to be generated by the HTZ over the next five years, the next step in the affordable housing analysis was to determine the average wages for each of the newly generated employees. Above, Fishkind utilized Costar data to determine the distribution of employment within the RCID. While Costar data remains the most detailed and accurate database from which to calculate employment within small trade areas (like the RCID), Fishkind believes that the independent, census based program, I-site by Geovue, is most appropriate when determining the distribution of employment within larger trade areas like the HTZ.

Fishkind utilized the I-site database to determine the distribution of employees by industry within the HTZ. This existing employee distribution was then applied to the 8,493 new annual employees calculated above to estimate the industry breakdown for future HTZ employees. Next, utilizing ES-202 wage data provided by the Florida Agency of Workforce Innovation, Fishkind matched each employee category from I-site with a NAICS code in the ES-202 data and then assigned an average wage to each employee category. Finally, Fishkind distributed the employees in each category around the mean wage for that category utilizing the standard bell curve or normal distribution.

Table 4.2 provides the percentage breakdown of existing employees by industry within the HTZ, the application of that percentage breakdown to the 8,493 projected annual future employees, and the ES-202 based mean wages associated with each employee category. The final growth number shown in Table 4.2 is slightly higher than 8,493 due to rounding. For the purposes of this analysis, Fishkind has utilized the 8,516 figure shown below in Table 4.2.

Table 4.2. HTZ Employment Distribution and Mean Wage by Industry.

Employee Category	Distribution	Annual Growth	Avg. Wage
Building Materials, Hardware and Garden	1.05%	90	$33,704
General Merchandise Stores	2.55%	217	$21,368
Food Markets	1.83%	156	$21,632
Convenience Stores	0.30%	26	$21,948
Other Food Stores	0.41%	35	$25,456
Auto Dealers and Gas Stations	1.68%	143	$33,016
Clothing Stores	1.51%	129	$16,920
Furniture Stores	0.35%	30	$35,524
Home Furnishings	0.24%	21	$26,968
Electronics and Computer Stores	0.51%	44	$33,444
Music Stores	0.05%	5	$16,876
Restaurants	10.01%	850	$17,744
Other Food Service	1.66%	141	$24,064
Bars	0.44%	38	$15,724
Drug Stores	0.71%	61	$27,496
Liquor Stores	0.11%	10	$20,536
Specialty Stores	2.15%	183	$25,480
Catalog and Direct Sales	0.17%	15	$60,596
Banks and Financial Institutions	1.46%	124	$68,036
Insurance Carriers	0.07%	7	$67,860
Insurance Agents and Brokers	0.30%	26	$70,428
Real Estate	2.88%	245	$48,628
Hotels and Lodging	16.15%	1,372	$26,084
Dry Cleaning and Laundry	0.28%	24	$26,004
Beauty and Barber Shops	0.70%	60	$20,556
Other Personal Service	0.67%	57	$24,156
Advertising	0.20%	18	$51,372
Computer Services	1.06%	91	$80,036
Other Business Services	8.93%	759	$38,240
Auto Repair/Services	1.25%	107	$30,084
Miscellaneous Repair Services	0.25%	22	$52,908
Motion Pictures	0.60%	51	$47,024
Entertainment and Recreation Services	2.26%	193	$29,512
Health and Medical Services	2.41%	205	$51,644
Hospitals	2.56%	218	$48,104
Legal Services	0.19%	17	$110,252
Primary and Secondary Education	3.78%	322	$43,400
Colleges and Universities	0.85%	72	$52,488
Other Education and Libraries	0.30%	26	$34,640
Social Services	0.93%	80	$24,408
Child Care Services	0.44%	37	$19,284
Museums and Zoos	0.01%	1	$24,788
Membership Organizations	1.11%	95	$30,896
Professional Services	2.32%	198	$53,508
Government	3.32%	283	$43,944
Unclassified Establishments	0.77%	66	$54,244
Other	18.20%	1,546	$42,604
	100.00%	8,516	

Source: Isite by Geovue. 2008.

4.2 Future HTZ Affordable Housing Demand

The final two steps in determining the affordable housing demand generated by the HTZ over the next five years were to (1) distribute the employees in each category around the mean wage for that category utilizing a normal distribution and then (2) utilizing regionally specific household headship rates and single vs. multi worker household rates by income level, translate the annual employee generation into an annual demand for affordable housing by household income.

The ECFRPC produces an affordable housing model which contains all of the necessary formulas and rates necessary to translate employee generation into affordable housing demand. Fishkind obtained the 2008 Orange County affordable housing model from the ECFRPC and utilized it in this analysis. A unique ECFRPC affordable housing model was used for each of the 47 employee categories shown in Table 4.2 and then the affordable housing totals for each model were aggregated to arrive at a total demand figure by income category. Appendix C provides each of the 47 employee category housing models.

As shown in Table 4.3, on the following page, the HTZ will generate 8,354 employees on an annual basis who will earn salaries falling within the very low, low, or moderate categories. These employees will generate demand for 4,378 annual households, of which, 3,299 annual households will fall within the very low, low or moderate categories.

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Table 4.3. Annual Affordable Housing Demand for All Employment Categories.

All Employment Categories												
Employees	8,516											
Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	789	$12,474,879	320	166	$15,811	127	$27,653	28	$35,006
Very Low	$17,500	$19,999	$18,750	415	$7,781,043	168	87	$18,750	67	$32,793	15	$41,511
Very Low	$20,000	$22,499	$21,250	519	$11,028,491	211	109	$21,250	83	$37,165	18	$47,046
Very Low	$22,500	$24,999	$23,750	588	$13,964,706	239	123	$23,750	95	$41,538	21	$52,581
Very Low	$25,000	$27,499	$26,250	614	$16,117,193	249	129	$26,250	99	$45,910	22	$58,116
Very Low	$27,500	$29,599	$28,550	491	$14,017,805	199	103	$28,550	79	$49,933	17	$63,209
Low	$29,600	$32,499	$31,050	615	$19,095,443	353	138	$31,050	170	$54,306	45	$68,744
Low	$32,500	$34,999	$33,750	481	$16,233,510	276	108	$33,750	133	$59,028	35	$74,721
Low	$35,000	$37,499	$36,250	468	$16,964,766	269	105	$36,250	129	$63,400	34	$80,256
Low	$37,500	$39,999	$38,750	479	$18,561,011	275	107	$38,750	133	$67,773	35	$85,791
Low	$40,000	$42,499	$41,250	485	$20,006,008	278	109	$41,250	134	$72,145	36	$91,326
Low	$42,500	$44,999	$43,750	479	$20,956,011	275	107	$43,750	133	$76,518	35	$96,861
Low	$45,000	$47,359	$46,180	421	$19,441,570	242	94	$46,180	116	$80,768	31	$102,241
Moderate	$47,360	$49,999	$48,680	406	$19,763,877	275	108	$48,680	128	$85,140	40	$107,776
Moderate	$50,000	$52,499	$51,250	314	$16,092,343	213	83	$51,250	99	$89,635	31	$113,466
Moderate	$52,500	$54,999	$53,750	243	$13,061,129	165	64	$53,750	77	$94,008	24	$119,001
Moderate	$55,000	$57,499	$56,250	179	$10,068,661	121	47	$56,250	56	$98,380	17	$124,536
Moderate	$57,500	$59,999	$58,750	125	$7,343,688	85	33	$58,750	39	$102,753	12	$130,071
Moderate	$60,000	$62,499	$61,250	90	$5,512,455	61	24	$61,250	28	$107,125	9	$135,606
Moderate	$62,500	$64,999	$63,750	63	$4,016,219	43	17	$63,750	20	$111,498	6	$141,141
Moderate	$65,000	$67,499	$66,250	45	$2,981,228	31	12	$66,250	14	$115,870	4	$146,676
Moderate	$67,500	$71,039	$69,270	45	$3,117,128	31	12	$69,270	14	$121,152	4	$153,363
Total				8,354		4,378						

Source: East Central Florida Regional Planning Council. Fishkind and Associates, Inc.

By applying the housing price and rental rate conversions shown in Table 3.6 and the rent/own splits provided in Table 3.7 to the total demand figures shown in Table 4.3, Fishkind determined the breakdown of demand for for-sale housing product and for-rent housing product that will be generated by the HTZ. Table 4.4 provides the breakdown of annual household demand for for-rent and for-sale product by income category.

Table 4.4. Breakdown of Annual HTZ Household Demand by For-Sale and For-Rent Product.

Income Group	Wage Ranges		Midpoint	Home Price	Monthly Rent	For-Sale Household Demand	For-Rent Household Demand	Total Household Demand
	Low	High						
Very Low	$14,123	$17,499	$15,811	$46,905	$295	50	116	166
Very Low	$17,500	$19,999	$18,750	$55,622	$369	26	61	87
Very Low	$20,000	$22,499	$21,250	$63,039	$431	33	76	109
Very Low	$22,500	$24,999	$23,750	$70,455	$494	37	86	123
Very Low	$25,000	$27,499	$26,250	$77,872	$556	39	90	129
Very Low	$27,500	$29,599	$28,550	$84,695	$614	69	161	230
Low	$29,600	$32,499	$31,050	$92,111	$676	55	83	138
Low	$32,500	$34,999	$33,750	$100,121	$744	70	104	174
Low	$35,000	$39,999	$37,500	$111,246	$837	129	194	323
Low	$40,000	$44,999	$42,500	$126,079	$962	130	195	325
Low	$45,000	$47,499	$46,250	$137,204	$1,056	85	126	211
Moderate	$47,500	$52,499	$50,000	$148,328	$1,150	162	108	270
Moderate	$52,500	$57,499	$55,000	$163,161	$1,275	182	121	303
Moderate	$57,500	$62,499	$60,000	$177,994	$1,400	127	85	212
Moderate	$62,500	$67,499	$65,000	$192,827	$1,525	105	70	175
Moderate	$67,500	$72,500	$70,000	$207,662	$1,650	194	130	324
Total						1,493	1,806	3,299

Source: Fishkind and Associates, Inc.

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5.0 Aggregate HTZ Affordable Housing Demand

The total demand for affordable housing within the HTZ can be determined by simply adding the demand generated by the RCID and the demand generated by the remainder of the HTZ employment. It is this total demand for affordable housing within the HTZ which must be compared to the supply of affordable housing within the HTZ to determine the affordable housing impacts of the RCID annual employment.

As shown in Table 3.8, the future RCID employment is expected to generate, on average, demand for 464 affordable housing units each year over the next five years of which 196 are expected to be for-sale units and 268 for-rent units. Additionally, as shown in Table 4.4, the remainder of the HTZ is expected to generate, on average, demand for 3,299 affordable housing units of which 1,493 will be for-sale units and 1,806 for-rent units. Thus, in total, the HTZ is expected to generate demand for a total of 1,689 for-sale units each year over the next five years and 2,074 for-rent units each year over the next five years.

Tables 5.1 and 5.2 provide the breakdown of for-sale and for-rent annual demand by income category for the HTZ.

Table 5.1. Annual RCID & HTZ Affordable Housing For-Sale Demand.

For-Sale	Income	Home Price	RCID Annual Demand	HTZ Annual Demand	Total Annual Demand
Very Low	$15,811	$46,905	10	50	60
Very Low	$18,750	$55,622	6	26	32
Very Low	$21,250	$63,039	7	33	40
Very Low	$23,750	$70,455	8	37	45
Very Low	$26,250	$77,872	8	39	47
Very Low	$28,550	$84,695	14	69	83
Low	$31,050	$92,111	10	55	65
Low	$33,750	$100,121	12	70	82
Low	$37,500	$111,246	16	129	145
Low	$42,500	$126,079	13	130	143
Low	$46,250	$137,204	11	85	96
Moderate	$50,000	$148,328	16	162	178
Moderate	$55,000	$163,161	25	182	207
Moderate	$60,000	$177,994	16	127	143
Moderate	$65,000	$192,827	10	105	115
Moderate	$70,000	$207,662	14	194	208
Total			196	1,493	1,689

Source: Fishkind and Associates, Inc.

Table 5.2. Annual RCID & HTZ Affordable Housing For-Rent Demand.

For-Rent	Income	Rental Rate	RCID Annual Demand	HTZ Annual Demand	Total Annual Demand
Very Low	$15,811	$295	24	116	140
Very Low	$18,750	$369	12	61	73
Very Low	$21,250	$431	16	76	92
Very Low	$23,750	$494	18	86	104
Very Low	$26,250	$556	19	90	109
Very Low	$28,550	$614	33	161	194
Low	$31,050	$676	15	83	98
Low	$33,750	$744	18	104	122
Low	$37,500	$837	24	194	218
Low	$42,500	$962	18	195	213
Low	$46,250	$1,056	17	126	143
Moderate	$50,000	$1,150	10	108	118
Moderate	$55,000	$1,275	17	121	138
Moderate	$60,000	$1,400	11	85	96
Moderate	$65,000	$1,525	7	70	77
Moderate	$70,000	$1,650	9	130	139
Total			268	1,806	2,074

Source: Fishkind and Associates, Inc.

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6.0 Housing Target Zone Affordable For-Sale Housing Supply

Fishkind evaluated the for-sale affordable housing supply within the HTZ. The affordable housing supply includes all parcel sales (single family, mobile home, and condominium) within the HTZ that occurred from January 1, 2007 through December 31, 2007. The HTZ encompasses portions of Orange, Osceola, Polk, and Lake Counties, thus, parcel sales data was obtained from all four of the Counties' respective property appraisers. The analysis looked at only "Qualified" sales transactions which occurred during the designated 12-month time period. By doing so, all "arms-length" transactions were removed from the dataset.

This analysis results, then, in a one-year snapshot of all "Qualified" sales activity within the HTZ. Fishkind believes this one year snapshot should be utilized as the basis for future supply. In other words, for the purposes of this analysis, Fishkind believes that the annual future supply of affordable housing within the HTZ will be, on average, equivalent to that of the one year snapshot.

Having assembled the historical dataset of "Qualified" sales transactions within the HTZ, Fishkind's next task was to calculate the volume of sales at each price point within the three "affordable" income groups: very low, low, and moderate. In total, Fishkind identified 6,355 "Qualified" home sales within the HTZ in 2007 in which home prices fell within the very low, low, or moderate category. As such, Fishkind projects that the HTZ will produce, on average, 6,355 affordable housing units each year over the next five years. Given the current direction of the real estate market in Central Florida and the significant price depreciation that is occurring, utilizing a one year snapshot of sales in 2007 as the basis for future supply represents a conservative methodology. Table 6.1, on the following page, shows the income and home price ranges applicable for each income category and the volume of home sales which occurred in 2007 within each home price range.

Table 6.1. Annual Volume of For-Sale Affordable Housing Supply within the HTZ.

Income Category	Income	Home Price	Annual Supply
Very Low	$15,811	$46,905	60
Very Low	$18,750	$55,622	72
Very Low	$21,250	$63,039	45
Very Low	$23,750	$70,455	68
Very Low	$26,250	$77,872	44
Very Low	$28,550	$84,695	66
Low	$31,050	$92,111	88
Low	$33,750	$100,121	118
Low	$37,500	$111,246	173
Low	$42,500	$126,079	306
Low	$46,250	$137,204	414
Moderate	$50,000	$148,328	503
Moderate	$55,000	$163,161	873
Moderate	$60,000	$177,994	991
Moderate	$65,000	$192,827	1,244
Moderate	$70,000	$207,662	1,290
Total			6,355

Source: Fishkind and Associates, Inc.

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7.0 Housing Target Zone Affordable For-Rent Housing Supply

7.1 Rental Supply Overview

Fishkind's analysis of for-rent supply was broken down into two categories: (1) multi-family apartment complexes and (2) for-rent private residences. Fishkind utilized data provided by Charles Wayne Consulting to estimate the current supply of vacant apartments with the HTZ. Charles Wayne Consulting maintains a database of existing apartment complexes within Central Florida. The database includes information on vacancy rates, rental rates, unit counts, etc. Fishkind has assumed for the purposes of this analysis that the supply of vacant apartment units available today will remain consistent on an average annual basis over the five-year time horizon.

Fishkind is unaware of any updated and accurate surveys of non-apartment rental units. These include any rental units (single family, mobile home, condo, etc.) that are privately owned, but occupied by renters. Fishkind utilized a multi-step process including Census, BEBR and CPI data to determine the supply of private residence rental units in 2008. Again, the Consultant has assumed that the current inventory of vacant private rental units will remain consistent over the five year time horizon. The apartment complex analysis and the private residence analysis were combined to arrive at the total supply of annual rental units.

7.2 For-Rent Apartments Affordable Housing Supply

Fishkind analyzed for-rent apartment data provided by Charles Wayne Consulting to determine the supply of vacant for-rent apartments within the HTZ. According to the Charles Wayne database, there are 199 apartment complexes within the HTZ that contain roughly 53,000 apartment units. Fishkind analyzed the vacancy rates released by each apartment complex to determine the current volume of vacant rental units in the market. The average vacancy rate across all 199 apartment complexes was shown to be 8%. The ECFRPC affordable housing methodology states that the first 5% of vacant multi-family units must be removed to allow for transitional households.

In maintaining the ECFRPC methodology, Fishkind removed the first 5% of vacancies, thus, the total number of vacant for-rent apartment units was estimated to be 3% of the roughly 53,000 total units, which amounts to a total of 1,586 vacant for-rent apartment units available to be utilized in the affordable housing analysis. The 1,586 affordable units were then broken down according to rental rate and categorized according to the three affordable income categories. Approximately 8 units were estimated to fall out of the affordable rental range threshold and were thus removed from the dataset. Table 7.1 provides the breakdown of apartment rental units by income category. Appendix D provides a complete listing of the apartment complexes identified within the HTZ.

Table 7.1. Annual Volume of For-Rent Affordable Apartment Units within the HTZ.

Income Category	Income	Rental Rate	Annual Supply
Very Low	$15,811	$295	0
Very Low	$18,750	$369	0
Very Low	$21,250	$431	1
Very Low	$23,750	$494	1
Very Low	$26,250	$556	19
Very Low	$28,550	$614	67
Low	$31,050	$676	195
Low	$33,750	$744	227
Low	$37,500	$837	343
Low	$42,500	$962	285
Low	$46,250	$1,056	155
Moderate	$50,000	$1,150	100
Moderate	$55,000	$1,275	74
Moderate	$60,000	$1,400	52
Moderate	$65,000	$1,525	38
Moderate	$70,000	$1,650	21
Total			1,578

Source: Charles Wayne Consulting. Fishkind and Associates, Inc.

7.3 For-Rent Private Affordable Housing Supply

Fishkind evaluated the for-rent supply of private residences within the HTZ utilizing a two step process. The first step involved estimating the total number of vacant rental units within the HTZ. The total number of vacant rental units within the HTZ is a function of the total number of housing units in the trade area, the number of rental units in the area, and the overall for-rent vacancy rate in the MSA. The second step of the process involved estimating the approximate rental rates of the vacant rental units. This step was accomplished by applying the MSA rental rate distribution to the total supply of vacant rental units within the 10-mile/20-minute trade area.

Fishkind utilized the Census based geographic modeling program, Isite by Geovue, to determine the number of renter occupied housing units within the HTZ in 2000. Next, based on the Orlando MSA rental vacancy rate in 2000, Fishkind calculated the total number of rental units within the HTZ in 2000. Growth of rental units within the HTZ between 2000 and 2008 was then estimated based on a percentage of MSA growth. Fishkind then applied the 2006 Orlando MSA rental vacancy rate, as provided by the 2006 Census Bureau American Community Survey, to the total number of rental units in 2008 to arrive at the supply of vacant rental units within the HTZ in 2008. The 2006 rental vacancy rate represents the most recent published rental vacancy rate for the MSA; therefore, Fishkind feels it is the most appropriate rate to be used. Based on these calculations, Fishkind estimates a total of 107,610 vacant rental units within the HTZ.

Fishkind calculated in the previous sub-section that there are approximately 53,000 rental apartment units within the HTZ; therefore, the total number of vacant rental units in the HTZ had to be adjusted to arrive at the total number of non-apartment rental units. The total number of for-rent private residences is equal to the 107,610 total units minus the roughly 53,000 apartment units. Thus, the total number of for-rent private residences within the HTZ is estimated to be 54,727 units. Applying the current rental vacancy rate of 7.55% to the 54,727 for-rent private units results in a total of 4,132 vacant for-rent private residences. Table 7.2 provides the calculations resulting in the estimation of vacant for-rent private residences within the HTZ.

Table 7.2. Annual HTZ Private For-Rent Vacant Units Analysis.

Rental Unit Calculations	2000	2008
HTZ - Housing Units	209,076	
HTZ - Housing Units, Occupied	182,700	
HTZ - Housing Units, Vacant	26,376	
HTZ - Housing Units, Owner-Occupied	117,206	
HTZ - Housing Units, Renter-Occupied	65,494	
Orlando MSA - Total Rental Units	240,561	313,538
Orlando MSA - Rental Occupied Units	217,944	289,868
Orlando MSA - Rental Vacancy	9.40%	7.55%
HTZ - Households	182,700	270,000
Orlando MSA - Households	672,909	853,289
HTZ - Total Rental Units	72,291	107,610
HTZ - Apartment Rental Units		52,883
HTZ - Private Rental Units		54,727
HTZ - Vacant Private Rental Units		**4,132**

Source: United States Census Bureau. I-site by Geovue. Fishkind and Associates, Inc.

The 2000 Census represents the most detailed and accurate data source upon which to base the rental rate distribution for the vacant private rental units. Unfortunately, the 2000 Census is outdated and is no longer appropriate, in isolation, to estimate the distribution of rental rates. Therefore, as opposed to simply utilizing the rental rate distributions provided by the 2000 Census, Fishkind believes it is imperative to update the 2000 Census figures to better reflect the current rental marketplace. As such, Fishkind has updated the rental rates found in the 2000 Census utilizing data provided by the Bureau of Labor Statistics.

The Orlando MSA rental rates found in the 2000 Census were increased based on the Consumer Price Index for Rent of Primary Residence. This data source represents the most detailed and thorough survey of rental rates, and thus represents the most appropriate source for estimating rental rate appreciation over time. Since the CPI only covers certain areas of the State, Fishkind's model utilized only the Miami/Ft. Lauderdale market, which historically has experienced the highest appreciation in the State. This provides an aggressive estimate of rental rate appreciation.

The CPI for Rent of Primary residence for the Miami/Ft. Lauderdale market shows rental rate appreciation between 2000 and 2008 of 54%. In order to estimate the rental rate distribution in the current rental market, Fishkind increased the Orlando MSA rental rates provided in the 2000 Census by 54%. Table 7.3 shows the volume of rental units in the Orlando MSA by rental rate as provided in the 2000 Census and then applies the 54% appreciation factor to arrive at the 2008 distribution. The 2008 distribution is then shown as applied to the vacant rental units within the HTZ. The difference in total units as compared to Table 7.2 is a function of rounding.

Table 7.3. Annual HTZ Private For-Rent Vacant Units by Rental Rate

	2000 MSA Units	2000 % of Total	CPI 2000-2008 54%	2008 % of Total	2008 HTZ Units
Total:	22,547	100.00%	22,547	100.00%	4,134
Less than $100	221	0.98%	0	0.00%	-
$100 to $149	396	1.76%	0	0.00%	-
$150 to $199	548	2.43%	425	1.88%	78
$200 to $249	733	3.25%	258	1.14%	47
$250 to $299	1,051	4.66%	320	1.42%	59
$300 to $349	1,550	6.87%	435	1.93%	80
$350 to $399	1,476	6.55%	505	2.24%	93
$400 to $449	1,596	7.08%	693	3.07%	127
$450 to $499	1,486	6.59%	903	4.00%	165
$500 to $549	1,716	7.61%	983	4.36%	180
$550 to $599	1,514	6.71%	957	4.24%	175
$600 to $649	1,742	7.73%	969	4.30%	178
$650 to $699	1,474	6.54%	1,018	4.52%	187
$700 to $749	1,277	5.66%	928	4.12%	170
$750 to $799	1,077	4.78%	1,014	4.50%	186
$800 to $899	1,773	7.86%	2,083	9.24%	382
$900 to $999	909	4.03%	2,139	9.49%	392
$1,000 to $1,249	845	3.75%	4,009	17.78%	735
$1,250 to $1,499	206	0.91%	2,187	9.70%	401
$1,500 to $1,999	235	1.04%	1,056	4.68%	194
$2,000 or more	722	3.20%	1,665	7.38%	305

Source: Fishkind and Associates, Inc.

The rental ranges shown above represent the standard ranges included in the U.S. Census tables, so Fishkind next had to re-distribute the rental supply according to price ranges reflective of this analysis. Table 7.4 shows the annual volume of private for-rent units within the HTZ according to the rental rate ranges outlined in this analysis.

Table 7.4. Annual Private For-Rent Affordable Housing Supply.

Income Category	Income	Rental Rate	Annual Supply
Very Low	$15,811	$295	155
Very Low	$18,750	$369	110
Very Low	$21,250	$431	157
Very Low	$23,750	$494	146
Very Low	$26,250	$556	263
Very Low	$28,550	$614	176
Low	$31,050	$676	272
Low	$33,750	$744	179
Low	$37,500	$837	367
Low	$42,500	$962	385
Low	$46,250	$1,056	442
Moderate	$50,000	$1,150	222
Moderate	$55,000	$1,275	369
Moderate	$60,000	$1,400	200
Moderate	$65,000	$1,525	160
Moderate	$70,000	$1,650	90
Total			3,693

Source: Fishkind and Associates, Inc.

As shown in Table 7.4, Fishkind estimates annual demand for 3,693 private for-rent units within the very low, low and moderate income categories within the HTZ over the next 5-years. The difference between the volume of units shown in Table 7.4 and in Table 7.3 is a result of units falling above the moderate threshold. It is next necessary to combine this total with the apartment survey totals to arrive at the total volume of affordable for-rent housing that is projected to be available on an annual basis over the next five years.

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7.4 Aggregate For-Rent Affordable Housing Supply

In total, Fishkind projects an annual supply of 5,271 for-rent units within the HTZ each year over the next five years. This includes 1,095 very low units, 2,850 low units, and 1,326 moderate units. Table 7.5 provides the total annual volume of for-rent supply projected for the HTZ by income category.

Table 7.5. Annual Total For-Rent Affordable Housing Supply.

For-Rent	Rental Rate	For-Rent Apartment	For-Rent Private	For-Rent Total
Very Low	$295	0	155	155
Very Low	$369	0	110	110
Very Low	$431	1	157	158
Very Low	$494	1	146	147
Very Low	$556	19	263	282
Very Low	$614	67	176	243
Low	$676	195	272	467
Low	$744	227	179	406
Low	$837	343	367	710
Low	$962	285	385	670
Low	$1,056	155	442	597
Moderate	$1,150	100	222	322
Moderate	$1,275	74	369	443
Moderate	$1,400	52	200	252
Moderate	$1,525	38	160	198
Moderate	$1,650	21	90	111
Total		1,578	3,693	5,271

Source: Fishkind and Associates, Inc.

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8.0 Housing Target Zone Aggregate Affordable Housing Supply

Fishkind analyzed a one-year (2007) snapshot of affordable housing sales transactions within the HTZ. Only "Qualified" sales transactions were included in the analysis, which included all single family, mobile home, and condo housing units. The sales transactions were determined based on an analysis of the property appraiser databases specific to each county within the HTZ. In this way, Fishkind's analysis included only non-arms length transactions which occurred within the HTZ during 2007.

Fishkind also calculated the current volume of vacant rental units in the market. The vacant rental unit analysis consisted of two studies. First, an analysis of commercial apartment complexes was conducted. This provided the current volume of vacant apartment units within the HTZ. Charles Wayne Consulting provided the apartment data. Second, an analysis of all vacant rental units within the HTZ was conducted. This analysis utilized both Census based data as well as data provided by Fishkind's in-house census based program I-site. To arrive at the total volume of private residence rental units (non-apartment complex units), the supply of apartment units was subtracted from the total vacant rental volume.

Fishkind believes it is appropriate to utilize the one-year snapshot of affordable housing volume as the basis for projecting affordable housing supply. In other words, Fishkind believes the one-year snapshot from 2007 will represent the average volume of affordable housing that will be available each year over the next five year period. This is a conservative approach to estimating future affordable housing supply as the current trends in home prices and rental rates point towards continued price declines. As such, it is likely that more affordable housing will be available over the next five years than what has been projected in this analysis.

Fishkind projects an annual average of 6,355 for-sale housing units within the very low, low and moderate categories within the HTZ over the next five years. Similarly, Fishkind projects an annual average of 5,271 vacant for-rent units within the very low, low and moderate categories within the HTZ over the next five years. Section 9.0 compares this calculated supply of affordable housing to the demand derived in Section 4.0 to determine the net affordable housing impacts of RCID employment within the HTZ. Table 8.1 provides a summary of the annual affordable housing supply available to accommodate the RCID and greater HTZ affordable housing demand.

Table 8.1. Total Annual Affordable Housing Supply.

For-Rent	Home Price	Rental Rate	For-Sale Total	For-Rent Total
Very Low	$56,286	$295	60	155
Very Low	$66,747	$369	72	110
Very Low	$75,646	$431	45	158
Very Low	$84,546	$494	68	147
Very Low	$93,446	$556	44	282
Very Low	$101,634	$614	66	243
Low	$110,534	$676	88	467
Low	$120,145	$744	118	406
Low	$133,495	$837	173	710
Low	$151,295	$962	306	670
Low	$164,644	$1,056	414	597
Moderate	$177,994	$1,150	503	322
Moderate	$195,794	$1,275	873	443
Moderate	$213,593	$1,400	991	252
Moderate	$231,393	$1,525	1,244	198
Moderate	$249,194	$1,650	1,290	111
Total			6,355	5,271

Source: Fishkind and Associates, Inc.

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9.0 RCID Affordable Housing Impact

9.1 RCID For-Sale Affordable Housing Impact

The final step in determining the affordable housing impacts of future RCID employment was to compare the annual demand for affordable housing generated by the RCID (and the HTZ) to the annual supply of affordable housing that will be generated. Fishkind first looked at the annual demand for for-sale product and compared it to the estimated annual supply of for-sale product. As shown below in Table 9.1, Fishkind projects that the RCID will generate average annual demand for 196 very low, low and moderate households. The breakdown of demand by income category shows demand for 53 very low units, 62 low units, and 81 moderate units.

Because the RCID generated household demand does not exist in a vacuum, it is also necessary to determine the demand for affordable housing that will arise from the normal patterns of growth within the HTZ. The demand generated by normal patterns of HTZ growth will also be seeking affordable housing within the HTZ, and as a result, it is necessary to ensure that there is adequate affordable housing supply to accommodate both groups of household demand. Fishkind's analysis of normal HTZ growth projects average annual demand for 1,493 very low, low and moderate households. The breakdown by income category includes 254 very low households, 469 low households and 770 moderate households.

In total, Fishkind projects annual demand for 307 very low households, 531 low households, and 851 moderate households each year over the next five years resulting in a total demand for 1,689 for-sale units.

Table 9.1. Annual Affordable Housing For-Sale Demand.

For-Sale	Income	Home Price	RCID Annual Demand	Non-RCID HTZ Annual Demand	Total Annual Demand
Very Low	$15,811 - $28,550	$46,905 - $84,695	53	254	307
Low	$31,050 - $46,250	$84,695 - $137,204	62	469	531
Moderate	$50,000 - $70,000	$137,204 - $207,662	81	770	851
Total			196	1,493	1,689

Source: Fishkind and Associates, Inc.

The corresponding supply of for-sale affordable housing was estimated in Section 5.0. As shown in Table 9.2, Fishkind projects an annual supply of 355 very low for-sale units, 1,099 low for-sale units and 4,901 moderate for-sale units. In total, Fishkind projects an average annual supply of 6,355 for-sale affordable housing units each year within the HTZ.

Table 9.2. Annual Affordable Housing For-Sale Supply.

For-Sale	Income	Home Price	HTZ Annual Supply
Very Low	$15,811 - $28,550	$46,905 - $84,695	355
Low	$31,050 - $46,250	$84,695 - $137,204	1,099
Moderate	$50,000 - $70,000	$137,204 - $207,662	4,901
Total			6,355

Source: Fishkind and Associates, Inc.

A comparison of the annual demand projections shown in Table 9.1 to the annual supply projections shown in Table 9.2 indicates that there will be a surplus of affordable housing within the very low, low and moderate income categories each year over the next five years. Specifically, the very low category is projected to have an annual for-sale surplus of 48 units per year, the low category is projected to have an annual for-sale surplus of 568 units per year, and the moderate category is projected to have an annual surplus of 4,050 units per year.

Thus, based on Fishkind's analysis, the supply of affordable housing within the designated HTZ is more than sufficient to accommodate both the demand generated by the RCID as well as the demand generated by the normal patterns of growth within the HTZ. As such, Fishkind concludes that the employment generation of the RCID will have no adverse affordable housing impacts and no further affordable housing mitigation is required. Table 9.3 provides a summary of the for-sale affordable housing analysis.

Table 9.3. Annual Affordable Housing For-Sale Summary.

For-Sale	Income	Home Price	Annual Supply	Annual Demand	Net Annual Surplus
Very Low	$15,811 - $28,550	$46,905 - $84,695	355	307	48
Low	$31,050 - $46,250	$84,695 - $137,204	1,099	531	568
Moderate	$50,000 - $70,000	$137,204 - $207,662	4,901	851	4,050
Total			6,355	1,689	4,666

Source: Fishkind and Associates, Inc.

9.2 RCID For-Rent Affordable Housing Impact

Fishkind next looked at the annual demand for for-rent product and compared it to the estimated annual supply of for-rent product. As shown below in Table 9.4, Fishkind projects that the RCID will generate average annual demand for 268 very low, low and moderate households. The breakdown of demand by income category shows demand for 122 very low units, 92 low units, and 54 moderate units.

Because the RCID generated household demand does not exist in a vacuum, it is also necessary to determine the demand for affordable housing that will arise from the normal patterns of growth within the HTZ. The demand generated by normal patterns of HTZ growth will also be seeking affordable housing within the HTZ, and as a result, it is necessary to ensure that there is adequate affordable housing supply to accommodate both groups of household demand. Fishkind's analysis of normal HTZ growth projects average annual for-rent demand for 1,806 very low, low and moderate households. The breakdown by income category includes 590 very low households, 702 low households and 514 moderate households.

In total, Fishkind projects annual demand for 712 very low households, 794 low households, and 568 moderate households each year over the next five years resulting in total demand for 2,074 for-rent housing units.

Table 9.4. Annual Affordable Housing For-Rent Demand.

For-Rent	Income	Rental Rate	RCID Annual Demand	Non-RCID HTZ Annual Demand	Total Annual Demand
Very Low	$15,811 - $28,550	$295 - $614	122	590	712
Low	$31,050 - $46,250	$614 - $1,056	92	702	794
Moderate	$50,000 - $70,000	$1,056 - $1,650	54	514	568
Total			268	1,806	2,074

Source: Fishkind and Associates, Inc.

The corresponding supply of for-rent affordable housing was estimated in Section 6.0. As shown in Table 9.5, Fishkind projects an annual supply of 1,095 very low for-rent units, 2,850 low for-rent units and 1,326 moderate for-rent units. In total, Fishkind projects an average annual supply of 5,271 for-rent affordable housing units each year within the HTZ.

Table 9.5. Annual Affordable Housing For-Rent Supply.

For-Rent	Income	Rental Rate	HTZ Annual Supply
Very Low	$15,811 - $28,550	$295 - $614	1,095
Low	$31,050 - $46,250	$614 - $1,056	2,850
Moderate	$50,000 - $70,000	$1,056 - $1,650	1,326
Total			5,271

Source: Fishkind and Associates, Inc.

A comparison of the annual demand projections shown in Table 9.4 to the annual supply projections shown in Table 9.5 indicates that there will be a surplus of affordable housing within the very low, low and moderate income categories each year over the next five years. Specifically, the very low category is projected to have an annual for-rent surplus of 383 units per year, the low category is projected to have an annual for-rent surplus of 2,056 units per year, and the moderate category is projected to have an annual surplus of 758 units per year.

Thus, based on Fishkind's analysis, the supply of affordable housing within the designated HTZ is more than sufficient to accommodate both the demand generated by the RCID as well as the demand generated by the normal patterns of growth within the HTZ. As such, Fishkind concludes that the employment generation of the RCID will have no adverse affordable housing impacts and no further affordable housing mitigation is required. Table 9.6 provides a summary of the for-rent affordable housing analysis.

Table 9.6. Annual Affordable Housing For-Rent Summary.

For-Rent	Income	Home Price	Annual Supply	Annual Demand	Net Annual Surplus
Very Low	$15,811 - $28,550	$295 - $614	1,095	712	383
Low	$31,050 - $46,250	$614 - $1,056	2,850	794	2,056
Moderate	$50,000 - $70,000	$1,056 - $1,650	1,326	568	758
Total			5,271	2,074	3,197

Source: Fishkind and Associates, Inc.

10.0 RCID Affordable Housing Contributions

Despite consistently showing no negative impacts on the affordable housing supply of the HTZ, the RCID has historically made significant contributions to affordable housing programs in the region. A number of these contributions are highlighted below.

- Through a waste-water service agreement with Orange County, the RCID assisted in the financing of the construction of a 256-unit affordable housing development within the HTZ called Buena Vista Place. Buena Vista Place contains 90 units that are reserved for households earning less than $16,800 and 166 units reserved for household earning less than $28,000.

- Walt Disney World purchased low income housing tax credits for affordable apartments in close proximity to the RCID. This included three apartment complexes containing over 1,000 affordable units.

- Walt Disney World owns an apartment complex intended to serve the affordable housing needs of college student employees. The complex is called Vista Way and includes free utilities and transportation to work. Vista Way contains 462 units and houses over 2,500 college student employees.

- Walt Disney World also leases three additional apartment complexes intended to serve the college student employees. The complexes offer free utilities and transportation to work and contain over 1,000 units housing over 4,200 college student employees.

- Walt Disney World contributed $300,000 to Osceola County's Down-Payment Assistance Program.

11.0 RCID Affordable Housing Conclusions

Based on an analysis of affordable housing demand generated by RCID employment and the respective supply of affordable housing available within the updated HTZ boundary, Fishkind has concluded that there exists an adequate supply of affordable housing in the market to accommodate the annual demand for affordable housing generated by the RCID AND all other affordable housing demand originating from within the HTZ. As such, Fishkind believes that no affordable housing mitigation is required by the RCID.

On annual basis, the HTZ is projected to have a surplus of 7,863 affordable housing units available to accommodate affordable housing demand generated from within the HTZ. Over the five year planning period from 2009 to 2013, the total surplus of affordable housing units in the HTZ is projected to be just over 39,000 units. Table 11.1 provides a summary of the annual affordable housing surplus, while Table 11.2 provides the total surplus over the five year planning period.

Table 11.1. Annual Affordable Housing Summary.

For-Sale	Income	Annual Supply	Annual Demand	Net Surplus
Very Low	$15,811 - $28,550	1,450	1,019	431
Low	$31,050 - $46,250	3,949	1,325	2,624
Moderate	$50,000 - $70,000	6,227	1,419	4,808
Total		11,626	3,763	7,863

Source: Fishkind and Associates, Inc.

Table 11.2. Five Year Planning Period Affordable Housing Summary.

For-Sale	Income	5-Year Supply	5-Year Demand	Net Surplus
Very Low	$15,811 - $28,550	7,250	5,095	2,155
Low	$31,050 - $46,250	19,745	6,625	13,120
Moderate	$50,000 - $70,000	31,135	7,095	24,040
Total		58,130	18,815	39,315

Source: Fishkind and Associates, Inc.

APPENDIX A

Employee Housing Distribution by Zip Code

Address of Cast Member		Total Cast Member Base			
Zip Code	County	FT	CR	CT	Total
32821	Orange County	1,855	259	706	**2,820**
34711	Lake County	2,054	470	249	**2,773**
32837	Orange County	1,808	469	252	**2,529**
34787	Orange County	1,499	298	192	**1,989**
34741	Osceola County	1,460	316	209	**1,985**
33837	Polk County	1,259	399	292	**1,950**
34746	Osceola County	1,291	377	198	**1,866**
34747	Osceola County	1,228	327	212	**1,767**
33897	Polk County	1,043	323	195	**1,561**
34758	Osceola County	1,077	295	165	**1,537**
34786	Orange County	1,149	235	120	**1,504**
34744	Osceola County	1,068	257	133	**1,458**
34743	Osceola County	1,051	253	139	**1,443**
34759	Polk County	934	349	148	**1,431**
32835	Orange County	989	240	169	**1,398**
34714	Lake County	1,006	170	151	**1,327**
32824	Orange County	926	238	122	**1,286**
32839	Orange County	942	151	175	**1,268**
32836	Orange County	954	193	114	**1,261**
32818	Orange County	911	108	88	**1,107**
32811	Orange County	847	166	92	**1,105**
32819	Orange County	771	199	113	**1,083**
34761	Orange County	838	130	90	**1,058**
32808	Orange County	795	90	81	**966**
33896	Osceola County	636	141	113	**890**
33844	Polk County	593	117	102	**812**
32822	Orange County	501	123	93	**717**
32809	Orange County	469	58	53	**580**
34769	Osceola County	411	80	48	**539**
32812	Orange County	366	79	58	**503**
34772	Osceola County	344	74	43	**461**
32825	Orange County	303	98	59	**460**
32828	Orange County	264	111	77	**452**
33881	Polk County	259	74	61	**394**
34715	Lake County	271	50	41	**362**
32806	Orange County	260	57	38	**355**
32810	Orange County	274	35	45	**354**
32805	Orange County	277	28	33	**338**
34736	Lake County	252	42	31	**325**
33823	Polk County	205	79	37	**321**
32703	Orange County	247	29	44	**320**
32807	Orange County	224	44	44	**312**
32803	Orange County	218	37	43	**298**
32712	Orange County	208	53	29	**290**
32792	Seminole County	157	71	49	**277**
34771	Osceola County	185	48	26	**259**

Address of Cast Member		Total Cast Member Base			
Zip Code	County	FT	CR	CT	Total
32817	Orange County	150	60	43	**253**
33868	Polk County	193	29	26	**248**
33880	Polk County	193	30	22	**245**
33884	Polk County	160	53	30	**243**
32765	Seminole County	137	62	42	**241**
32829	Orange County	156	55	28	**239**
32832	Orange County	146	41	39	**226**
34713	FL Unknown	128	44	35	**207**
32714	Seminole County	133	36	31	**200**
32804	Orange County	154	20	24	**198**
32830	Orange County	121	17	50	**188**
32707	Seminole County	110	41	23	**174**
32869	FL Unknown	121	27	17	**165**
34748	Lake County	59	78	26	**163**
34734	Orange County	116	19	27	**162**
34742	FL Unknown	135	17	10	**162**
33809	Polk County	102	35	21	**158**
33810	Polk County	107	30	21	**158**
32826	Orange County	72	46	38	**156**
32708	Seminole County	105	31	15	**151**
33850	Polk County	102	23	15	**140**
32827	Orange County	95	28	15	**138**
32789	Orange County	98	19	20	**137**
32801	Orange County	95	17	22	**134**
32701	Seminole County	78	21	20	**119**
33836	FL Unknown	102	13	4	**119**
34756	Lake County	93	11	12	**116**
32751	Orange County	73	17	19	**109**
34745	FL Unknown	85	17	7	**109**
32746	Seminole County	73	23	12	**108**
32779	Seminole County	66	23	11	**100**
33801	Polk County	59	25	12	**96**
32750	Seminole County	63	19	11	**93**
32771	Seminole County	63	19	10	**92**
32725	Volusia County	62	16	13	**91**
32738	Volusia County	53	9	29	**91**
32757	Orange County	57	20	11	**88**
0000	Non-FL	7	-	80	**87**
34753	Lake County	62	10	7	**79**
33805	Polk County	53	14	8	**75**
32778	Lake County	45	12	14	**71**
32958	Indian River County	44	21	5	**70**
34760	FL Unknown	53	2	14	**69**
00000	Non-FL	2	-	64	**66**
32855	FL Unknown	59	-	7	**66**
32877	FL Unknown	50	9	7	**66**
LIMA	Non-FL	-	-	65	**65**

Address of Cast Member		Total Cast Member Base			
Zip Code	County	FT	CR	CT	Total
33859	Polk County	23	22	18	**63**
33813	Polk County	37	15	10	**62**
32868	FL Unknown	57	1	3	**61**
32833	Orange County	41	11	8	**60**
33594	Hillsborough County	35	24	1	**60**
33845	FL Unknown	52	3	3	**58**
33848	FL Unknown	41	9	8	**58**
32773	Seminole County	42	7	8	**57**
32726	Lake County	34	8	13	**55**
33838	Polk County	39	7	7	**53**
33647	Hillsborough County	28	15	6	**49**
33803	Polk County	30	13	6	**49**
32814	Orange County	34	11	3	**48**
32820	Orange County	25	13	10	**48**
32927	Brevard County	26	10	12	**48**
32776	Lake County	34	3	8	**45**
33858	FL Unknown	37	7	1	**45**
32713	Volusia County	26	11	7	**44**
33898	Polk County	38	3	3	**44**
34755	FL Unknown	29	9	6	**44**
32859	FL Unknown	38	3	2	**43**
33811	Polk County	28	12	3	**43**
32967	Indian River County	26	12	4	**42**
33511	Hillsborough County	23	14	5	**42**
32766	Seminole County	22	8	11	**41**
32861	FL Unknown	33	6	2	**41**
33853	Polk County	34	3	2	**39**
34770	FL Unknown	31	5	3	**39**
33569	Hillsborough County	27	8	1	**36**
34788	Lake County	22	7	5	**34**
77399	Non-FL	-	1	33	**34**
32955	Brevard County	14	15	4	**33**
34737	Lake County	28	3	2	**33**
34773	Osceola County	27	3	3	**33**
33617	Hillsborough County	25	5	2	**32**
34712	FL Unknown	20	9	2	**31**
34778	FL Unknown	26	2	3	**31**
32780	Brevard County	14	9	7	**30**
32935	Brevard County	9	11	10	**30**
32763	Volusia County	19	3	7	**29**
32796	Brevard County	16	7	6	**29**
33543	Pasco County	24	4	1	**29**
33830	Polk County	14	8	7	**29**
34705	Lake County	22	2	5	**29**
32730	Seminole County	13	11	4	**28**
32856	FL Unknown	24	3	1	**28**
32940	Brevard County	10	16	2	**28**

Address of Cast Member		Total Cast Member Base			
Zip Code	County	FT	CR	CT	Total
32962	Indian River County	18	7	3	**28**
32960	Indian River County	20	2	5	**27**
34639	Pasco County	20	6	1	**27**
32858	FL Unknown	23	1	2	**26**
32952	Brevard County	7	14	5	**26**
33510	Hillsborough County	16	6	4	**26**
33547	Hillsborough County	11	11	4	**26**
33566	Hillsborough County	16	7	3	**26**
33597	Sumter County	20	3	3	**26**
32724	Volusia County	13	7	5	**25**
32926	Brevard County	8	14	3	**25**
33544	Pasco County	17	5	3	**25**
33851	FL Unknown	20	4	1	**25**
33885	FL Unknown	22	2	1	**25**
32720	Volusia County	14	4	5	**23**
32798	Orange County	15	4	4	**23**
34731	Lake County	13	4	6	**23**
32907	Brevard County	9	6	7	**22**
33613	Hillsborough County	17	1	4	**22**
33624	Hillsborough County	11	7	3	**21**
33839	Polk County	17	-	4	**21**
57106	Non-FL	-	-	21	**21**
32909	Brevard County	13	3	4	**20**
33563	Hillsborough County	13	4	3	**20**
33584	Hillsborough County	9	10	1	**20**
34609	Hernando County	12	6	2	**20**
32736	Lake County	15	1	3	**19**
32920	Brevard County	5	10	4	**19**
32953	Brevard County	5	12	2	**19**
33615	Hillsborough County	17	2	-	**19**
33637	Hillsborough County	16	1	2	**19**
33843	Polk County	10	2	7	**19**
32159	Lake County	12	3	3	**18**
32704	FL Unknown	15	-	3	**18**
32784	Lake County	6	4	8	**18**
32951	Brevard County	8	7	3	**18**
32976	Brevard County	15	3	-	**18**
32513	FL Unknown	-	2	15	**17**
32709	Orange County	12	2	3	**17**
32862	FL Unknown	12	4	1	**17**
33558	Hillsborough County	12	2	3	**17**
33612	Hillsborough County	17	-	-	**17**
33625	Hillsborough County	13	4	-	**17**
34777	FL Unknown	16	1	-	**17**
32162	Sumter County	3	6	7	**16**
32854	FL Unknown	11	3	2	**16**
32904	Brevard County	2	7	7	**16**

Address of Cast Member		Total Cast Member Base			
Zip Code	County	FT	CR	CT	Total
32937	Brevard County	4	7	5	**16**
33860	Polk County	12	4	-	**16**
32802	FL Unknown	12	3	-	**15**
32816	FL Unknown	1	10	4	**15**
32867	FL Unknown	8	4	3	**15**
33542	Pasco County	8	3	4	**15**
33604	Hillsborough County	12	1	2	**15**
34491	Marion County	8	3	4	**15**
32168	Volusia County	6	2	6	**14**
33610	Hillsborough County	11	3	-	**14**
32127	Volusia County	4	4	5	**13**
33565	Hillsborough County	12	1	-	**13**
79912	Non-FL	-	-	13	**13**
32732	Seminole County	7	2	3	**12**
33513	Sumter County	7	-	5	**12**
33618	Hillsborough County	8	3	1	**12**
34601	Hernando County	9	2	1	**12**
34797	Lake County	7	2	3	**12**
32831	Orange County	7	2	2	**11**
32901	Brevard County	6	3	2	**11**
32931	Brevard County	6	2	3	**11**
32966	Indian River County	6	3	2	**11**
33578	FL Unknown	9	2	-	**11**
33634	Hillsborough County	8	1	2	**11**
33815	Polk County	10	-	1	**11**
33827	Polk County	9	1	1	**11**
34729	FL Unknown	10	1	-	**11**
34785	Sumter County	7	3	1	**11**
34983	St. Lucie County	3	3	5	**11**
32702	Lake County	5	3	2	**10**
32793	FL Unknown	8	1	1	**10**
33186	Miami-Dade County	1	3	6	**10**
33541	Pasco County	4	5	1	**10**
33549	Hillsborough County	8	2	-	**10**
33559	Hillsborough County	7	2	1	**10**
33611	Hillsborough County	6	1	3	**10**
33614	Hillsborough County	7	3	-	**10**
33626	Hillsborough County	7	3	-	**10**
34472	Marion County	4	3	3	**10**
34668	Pasco County	8	-	2	**10**

Source: Reedy Creek Improvement District
Note: Only those Zip Codes with greater than 10 employee housing units were included in the Table.

APPENDIX B

Detailed ECFRPC Affordable Housing Models for RCID

Home Improvement Stores

Average Wage $33,704 Stand. Dev. 6,000
Employees 3

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	0	$0	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	0	$0	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	1	$28,550	1	1	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	1	$31,050	1	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	1	$33,750	1	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	0	$0	0	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

General Merchandise Stores

Average Wage $21,368 Stand. Dev. 6,000
Employees 22

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	6	$94,866	2	1	$15,811	1	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	3	$56,249	1	1	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	4	$84,998	2	1	$21,250	1	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	3	$71,249	1	1	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	3	$78,749	1	1	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	2	$57,099	1	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	1	$31,050	1	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	0	$0	0	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	0	$0	0	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Food Stores

Average Wage $21,632 Stand. Dev. 6,000
Employees 11

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	2	$31,622	1	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	2	$37,499	1	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	2	$42,499	1	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	2	$47,499	1	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	1	$26,250	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	1	$28,550	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	1	$31,050	1	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	0	$0	0	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	0	$0	0	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Auto Dealers & Service Stations

Average Wage $33,016 Stand. Dev. 6,000
Employees 4

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	0	$0	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	0	$0	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	0	$0	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	1	$31,050	1	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	2	$67,499	1	0	$33,750	1	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	1	$36,250	1	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Apparel & Accessory Stores

Average Wage $16,920 Stand. Dev. 6,000
Employees 22

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	13	$205,543	5	3	$15,811	2	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	3	$56,249	1	1	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	3	$63,749	1	1	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	2	$47,499	1	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	1	$26,250	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	0	$0	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	0	$0	0	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	0	$0	0	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	0	$0	0	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Home Furniture, Furnishings & Equipment

Average Wage $33,704 Stand. Dev. 6,000
Employees 3

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	0	$0	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	0	$0	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	1	$28,550	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	1	$31,050	1	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	1	$33,750	1	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	0	$0	0	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Eating & Drinking Places

Average Wage $17,744 Stand. Dev. 6,000
Employees 200

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	97	$1,533,667	39	20	$15,811	16	$27,653	3	$35,006
Very Low	$17,500	$19,999	$18,750	33	$618,734	13	7	$18,750	5	$32,793	1	$41,511
Very Low	$20,000	$22,499	$21,250	28	$594,986	11	6	$21,250	5	$37,165	1	$47,046
Very Low	$22,500	$24,999	$23,750	20	$474,990	8	4	$23,750	3	$41,538	1	$52,581
Very Low	$25,000	$27,499	$26,250	12	$314,994	5	3	$26,250	2	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	6	$171,297	2	1	$28,550	1	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	3	$93,149	2	1	$31,050	1	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	1	$33,750	1	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	0	$0	0	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Miscellaneous Retail

Average Wage $25,480 Stand. Dev. 6,000
Employees 29

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	1	$15,811	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	3	$56,249	1	1	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	4	$84,998	2	1	$21,250	1	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	5	$118,748	2	1	$23,750	1	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	5	$131,248	2	1	$26,250	1	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	4	$114,198	2	1	$28,550	1	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	4	$124,198	2	1	$31,050	1	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	2	$67,499	1	0	$33,750	1	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	1	$36,250	1	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Banks, Saving & Lending Institutions

Average Wage $68,036 Stand. Dev. 6,000
Employees 6

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	0	$0	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	0	$0	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	0	$0	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	0	$0	0	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	0	$0	0	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	0	$0	0	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	1	$61,250	1	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	1	$63,750	1	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	2	$132,499	1	1	$66,250	1	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	2	$138,539	1	1	$69,270	1	$121,152	0	$153,363

Securities Brokers and Investments

Average Wage $68,036 Stand. Dev. 6,000
Employees 2

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	0	$0	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	0	$0	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	0	$0	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	0	$0	0	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	0	$0	0	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	0	$0	0	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	1	$66,250	1	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	1	$69,270	1	0	$69,270	0	$121,152	0	$153,363

Insurance Carriers & Agencies

Average Wage $67,860 Stand. Dev. 6,000
Employees 1

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	0	$0	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	0	$0	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	0	$0	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	0	$0	0	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	0	$0	0	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	0	$0	0	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	1	$69,270	1	0	$69,270	0	$121,152	0	$153,363

Real Estate/Trust/Holding Companies

Average Wage $48,628 Stand. Dev. 6,000
Employees 26

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	0	$0	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	0	$0	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	0	$0	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	0	$0	0	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	0	$0	0	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	1	$36,250	1	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	1	$38,750	1	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	2	$82,499	1	0	$41,250	1	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	3	$131,249	2	1	$43,750	1	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	4	$184,718	2	1	$46,180	1	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	5	$243,398	3	1	$48,680	2	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	4	$204,998	3	1	$51,250	1	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	3	$161,249	2	1	$53,750	1	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	2	$112,499	1	1	$56,250	1	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	1	$58,750	1	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Hotels & Lodging

Average Wage $26,084 Stand. Dev. 6,000
Employees 425

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	33	$521,763	13	7	$15,811	5	$27,653	1	$35,006
Very Low	$17,500	$19,999	$18,750	34	$637,483	14	7	$18,750	5	$32,793	1	$41,511
Very Low	$20,000	$22,499	$21,250	51	$1,083,725	21	11	$21,250	8	$37,165	2	$47,046
Very Low	$22,500	$24,999	$23,750	65	$1,543,718	26	14	$23,750	10	$41,538	2	$52,581
Very Low	$25,000	$27,499	$26,250	70	$1,837,465	28	15	$26,250	11	$45,910	2	$58,116
Very Low	$27,500	$29,599	$28,550	54	$1,541,673	22	11	$28,550	9	$49,933	2	$63,209
Low	$29,600	$32,499	$31,050	58	$1,800,871	33	13	$31,050	16	$54,306	4	$68,744
Low	$32,500	$34,999	$33,750	31	$1,046,235	18	7	$33,750	9	$59,028	2	$74,721
Low	$35,000	$37,499	$36,250	17	$616,242	10	4	$36,250	5	$63,400	1	$80,256
Low	$37,500	$39,999	$38,750	8	$309,996	5	2	$38,750	2	$67,773	1	$85,791
Low	$40,000	$42,499	$41,250	3	$123,749	2	1	$41,250	1	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	1	$43,750	1	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Personal Services

Average Wage $24,156 Stand. Dev. 6,000
Employees 20

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	4	$63,244	2	1	$15,811	1	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	2	$37,499	1	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	3	$63,749	1	1	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	3	$71,249	1	1	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	3	$78,749	1	1	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	2	$57,099	1	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	2	$62,099	1	0	$31,050	1	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	1	$33,750	1	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	0	$0	0	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Business Services

Average Wage $53,508 Stand. Dev. 6,000
Employees 17

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	0	$0	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	0	$0	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	0	$0	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	0	$0	0	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	0	$0	0	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	0	$0	0	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	1	$43,750	1	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	1	$46,180	1	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	2	$97,359	1	1	$48,680	1	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	3	$153,749	2	1	$51,250	1	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	3	$161,249	2	1	$53,750	1	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	3	$168,749	2	1	$56,250	1	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	2	$117,499	1	1	$58,750	1	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	1	$61,250	1	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	1	$63,750	1	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Motion Picture & Amusement

Average Wage $29,512 Stand. Dev. 6,000
Employees 161

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	4	$63,244	2	1	$15,811	1	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	5	$93,748	2	1	$18,750	1	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	10	$212,495	4	2	$21,250	2	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	17	$403,742	7	4	$23,750	3	$41,538	1	$52,581
Very Low	$25,000	$27,499	$26,250	23	$603,739	9	5	$26,250	4	$45,910	1	$58,116
Very Low	$27,500	$29,599	$28,550	22	$628,089	9	5	$28,550	4	$49,933	1	$63,209
Low	$29,600	$32,499	$31,050	30	$931,485	17	7	$31,050	8	$54,306	2	$68,744
Low	$32,500	$34,999	$33,750	21	$708,740	12	5	$33,750	6	$59,028	2	$74,721
Low	$35,000	$37,499	$36,250	14	$507,493	8	3	$36,250	4	$63,400	1	$80,256
Low	$37,500	$39,999	$38,750	8	$309,996	5	2	$38,750	2	$67,773	1	$85,791
Low	$40,000	$42,499	$41,250	4	$164,998	2	1	$41,250	1	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	2	$87,499	1	0	$43,750	1	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	1	$46,180	1	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Health Services

Average Wage $51,644 Stand. Dev. 6,000
Employees 10

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	0	$0	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	0	$0	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	0	$0	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	0	$0	0	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	0	$0	0	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	0	$0	0	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	1	$43,750	1	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	1	$46,180	1	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	2	$97,359	1	1	$48,680	1	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	2	$102,499	1	1	$51,250	1	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	2	$107,499	1	1	$53,750	1	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	1	$56,250	1	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	1	$58,750	1	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Legal Services

Average Wage $110,252 Stand. Dev. 6,000
Employees -

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	0	$0	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	0	$0	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	0	$0	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	0	$0	0	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	0	$0	0	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	0	$0	0	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Education Services

Average Wage $43,400 Stand. Dev. 6,000
Employees 12

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	0	$0	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	0	$0	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	0	$0	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	0	$0	0	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	1	$33,750	1	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	1	$36,250	1	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	2	$77,499	1	0	$38,750	1	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	2	$82,499	1	0	$41,250	1	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	2	$87,499	1	0	$43,750	1	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	2	$92,359	1	0	$46,180	1	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	1	$48,680	1	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	1	$51,250	1	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Social Services

Average Wage $24,408 Stand. Dev. 6,000
Employees 11

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	1	$15,811	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	1	$18,750	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	2	$42,499	1	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	2	$47,499	1	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	2	$52,499	1	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	1	$28,550	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	1	$31,050	1	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	1	$33,750	1	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	0	$0	0	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Other Services

Average Wage $28,804 Stand. Dev. 6,000
Employees 38

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	1	$15,811	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	2	$37,499	1	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	3	$63,749	1	1	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	4	$94,998	2	1	$23,750	1	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	6	$157,497	2	1	$26,250	1	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	5	$142,748	2	1	$28,550	1	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	7	$217,347	4	2	$31,050	2	$54,306	1	$68,744
Low	$32,500	$34,999	$33,750	4	$134,998	2	1	$33,750	1	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	3	$108,749	2	1	$36,250	1	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	2	$77,499	1	0	$38,750	1	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	1	$41,250	1	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Agriculture/Mining

Average Wage $23,820 Stand. Dev. 6,000
Employees 2

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	1	$21,250	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	1	$23,750	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	0	$0	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	0	$0	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	0	$0	0	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	0	$0	0	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	0	$0	0	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Construction

Average Wage $50,044 Stand. Dev. 6,000
Employees 23

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	0	$0	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	0	$0	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	0	$0	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	0	$0	0	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	0	$0	0	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	0	$0	0	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	1	$38,750	1	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	1	$41,250	1	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	2	$87,499	1	0	$43,750	1	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	3	$138,539	2	1	$46,180	1	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	4	$194,718	3	1	$48,680	1	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	5	$256,248	3	1	$51,250	2	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	3	$161,249	2	1	$53,750	1	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	2	$112,499	1	1	$56,250	1	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	1	$58,750	1	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	1	$61,250	1	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Manufacturing

Average Wage $58,712 Stand. Dev. 6,000
Employees 6

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	0	$0	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	0	$0	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	0	$0	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	0	$0	0	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	0	$0	0	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	0	$0	0	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	1	$53,750	1	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	1	$56,250	1	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	2	$117,499	1	1	$58,750	1	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	1	$61,250	1	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	1	$63,750	1	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Transp/Commun/Pub Util

Average Wage $36,412 Stand. Dev. 6,000
Employees 17

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	0	$0	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	1	$26,250	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	1	$28,550	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	2	$62,099	1	0	$31,050	1	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	3	$101,249	2	1	$33,750	1	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	3	$108,749	2	1	$36,250	1	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	3	$116,249	2	1	$38,750	1	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	2	$82,499	1	0	$41,250	1	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	1	$43,750	1	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	1	$46,180	1	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Wholesale Trade

Average Wage $56,044 Stand. Dev. 6,000
Employees 5

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	0	$0	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	0	$0	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	0	$0	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	0	$0	0	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	0	$0	0	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	0	$0	0	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	1	$51,250	1	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	1	$53,750	1	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	1	$56,250	1	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	1	$58,750	1	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	1	$61,250	1	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Government												
Average Wage	$43,944		Stand. Dev.	6,000								
Employees	29											
Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	0	$0	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	0	$0	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	0	$0	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	1	$31,050	1	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	1	$33,750	1	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	2	$72,499	1	0	$36,250	1	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	4	$154,998	2	1	$38,750	1	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	4	$164,998	2	1	$41,250	1	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	5	$218,748	3	1	$43,750	1	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	4	$184,718	2	1	$46,180	1	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	4	$194,718	3	1	$48,680	1	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	2	$102,499	1	1	$51,250	1	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	1	$53,750	1	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	1	$56,250	1	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

APPENDIX C

Detailed ECFRPC Affordable Housing Models for HTZ

Building Materials, Hardware and Garden

Average Wage $33,704 Stand. Dev. 6,000
Employees 90

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	2	$42,499	1	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	4	$94,998	2	1	$23,750	1	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	7	$183,747	3	1	$26,250	1	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	9	$256,946	4	2	$28,550	1	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	16	$496,792	9	4	$31,050	4	$54,306	1	$68,744
Low	$32,500	$34,999	$33,750	15	$506,243	9	3	$33,750	4	$59,028	1	$74,721
Low	$35,000	$37,499	$36,250	14	$507,493	8	3	$36,250	4	$63,400	1	$80,256
Low	$37,500	$39,999	$38,750	10	$387,495	6	2	$38,750	3	$67,773	1	$85,791
Low	$40,000	$42,499	$41,250	7	$288,747	4	2	$41,250	2	$72,145	1	$91,326
Low	$42,500	$44,999	$43,750	4	$174,998	2	1	$43,750	1	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	2	$92,359	1	0	$46,180	1	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

General Merchandise Stores

Average Wage $21,368 Stand. Dev. 6,000
Employees 217

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	55	$869,605	22	12	$15,811	9	$27,653	2	$35,006
Very Low	$17,500	$19,999	$18,750	33	$618,734	13	7	$18,750	5	$32,793	1	$41,511
Very Low	$20,000	$22,499	$21,250	36	$764,982	15	8	$21,250	6	$37,165	1	$47,046
Very Low	$22,500	$24,999	$23,750	33	$783,734	13	7	$23,750	5	$41,538	1	$52,581
Very Low	$25,000	$27,499	$26,250	26	$682,487	11	5	$26,250	4	$45,910	1	$58,116
Very Low	$27,500	$29,599	$28,550	15	$428,243	6	3	$28,550	2	$49,933	1	$63,209
Low	$29,600	$32,499	$31,050	12	$372,594	7	3	$31,050	3	$54,306	1	$68,744
Low	$32,500	$34,999	$33,750	4	$134,998	2	1	$33,750	1	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	2	$72,499	1	0	$36,250	1	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	1	$38,750	1	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Food Markets

Average Wage	$21,632	Stand. Dev.	6,000
Employees	156		

Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	40	$632,440	16	8	$15,811	6	$27,653	1	$35,006
Very Low	$17,500	$19,999	$18,750	23	$431,239	9	5	$18,750	4	$32,793	1	$41,511
Very Low	$20,000	$22,499	$21,250	26	$552,487	11	5	$21,250	4	$37,165	1	$47,046
Very Low	$22,500	$24,999	$23,750	24	$569,988	10	5	$23,750	4	$41,538	1	$52,581
Very Low	$25,000	$27,499	$26,250	19	$498,741	8	4	$26,250	3	$45,910	1	$58,116
Very Low	$27,500	$29,599	$28,550	11	$314,045	4	2	$28,550	2	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	9	$279,446	5	2	$31,050	2	$54,306	1	$68,744
Low	$32,500	$34,999	$33,750	3	$101,249	2	1	$33,750	1	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	1	$36,250	1	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Convenience Stores

Average Wage	$21,948	Stand. Dev.	6,000
Employees	26		

Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	6	$94,866	2	1	$15,811	1	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	4	$74,998	2	1	$18,750	1	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	4	$84,998	2	1	$21,250	1	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	4	$94,998	2	1	$23,750	1	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	3	$78,749	1	1	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	2	$57,099	1	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	2	$62,099	1	0	$31,050	1	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	1	$33,750	1	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	0	$0	0	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Other Food Stores

Average Wage $25,456 Stand. Dev. 6,000
Employees 35

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	3	$47,433	1	1	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	3	$56,249	1	1	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	5	$106,248	2	1	$21,250	1	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	6	$142,497	2	1	$23,750	1	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	6	$157,497	2	1	$26,250	1	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	4	$114,198	2	1	$28,550	1	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	4	$124,198	2	1	$31,050	1	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	2	$67,499	1	0	$33,750	1	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	1	$36,250	1	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	1	$38,750	1	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Auto Dealers and Gas Stations

Average Wage $33,016 Stand. Dev. 6,000
Employees 143

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	2	$31,622	1	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	1	$18,750	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	4	$84,998	2	1	$21,250	1	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	7	$166,247	3	1	$23,750	1	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	13	$341,244	5	3	$26,250	2	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	15	$428,243	6	3	$28,550	2	$49,933	1	$63,209
Low	$29,600	$32,499	$31,050	26	$807,287	15	6	$31,050	7	$54,306	2	$68,744
Low	$32,500	$34,999	$33,750	23	$776,239	13	5	$33,750	6	$59,028	2	$74,721
Low	$35,000	$37,499	$36,250	20	$724,990	11	4	$36,250	6	$63,400	1	$80,256
Low	$37,500	$39,999	$38,750	15	$581,243	9	3	$38,750	4	$67,773	1	$85,791
Low	$40,000	$42,499	$41,250	9	$371,246	5	2	$41,250	2	$72,145	1	$91,326
Low	$42,500	$44,999	$43,750	5	$218,748	3	1	$43,750	1	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	2	$92,359	1	0	$46,180	1	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	1	$48,680	1	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Clothing Stores

Average Wage	$16,920	Stand. Dev.	6,000
Employees	129		

Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	70	$1,106,770	28	15	$15,811	11	$27,653	2	$35,006
Very Low	$17,500	$19,999	$18,750	20	$374,990	8	4	$18,750	3	$32,793	1	$41,511
Very Low	$20,000	$22,499	$21,250	17	$361,242	7	4	$21,250	3	$37,165	1	$47,046
Very Low	$22,500	$24,999	$23,750	11	$261,245	4	2	$23,750	2	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	6	$157,497	2	1	$26,250	1	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	3	$85,649	1	1	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	2	$62,099	1	0	$31,050	1	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	0	$0	0	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	0	$0	0	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Furniture Stores

Average Wage	$35,524	Stand. Dev.	7,000
Employees	30		

Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	1	$21,250	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	1	$23,750	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	2	$52,499	1	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	2	$57,099	1	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	4	$124,198	2	1	$31,050	1	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	5	$168,748	3	1	$33,750	1	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	5	$181,248	3	1	$36,250	1	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	4	$154,998	2	1	$38,750	1	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	3	$123,749	2	1	$41,250	1	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	2	$87,499	1	0	$43,750	1	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	1	$46,180	1	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	1	$48,680	1	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Home Furnishings

Average Wage $26,968 Stand. Dev. 7,000
Employees 21

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	2	$31,622	1	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	2	$37,499	1	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	2	$42,499	1	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	3	$71,249	1	1	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	3	$78,749	1	1	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	2	$57,099	1	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	3	$93,149	2	1	$31,050	1	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	2	$67,499	1	0	$33,750	1	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	1	$36,250	1	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	1	$38,750	1	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Electronics and Computer Stores

Average Wage $33,444 Stand. Dev. 7,000
Employees 44

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	1	$15,811	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	1	$18,750	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	1	$21,250	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	2	$47,499	1	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	4	$104,998	2	1	$26,250	1	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	4	$114,198	2	1	$28,550	1	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	7	$217,347	4	2	$31,050	2	$54,306	1	$68,744
Low	$32,500	$34,999	$33,750	6	$202,497	3	1	$33,750	2	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	6	$217,497	3	1	$36,250	2	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	5	$193,748	3	1	$38,750	1	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	3	$123,749	2	1	$41,250	1	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	2	$87,499	1	0	$43,750	1	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	1	$46,180	1	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	1	$48,680	1	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Music Stores

Average Wage	$16,876	Stand. Dev.	6,000
Employees	5		

Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	3	$47,433	1	1	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	1	$18,750	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	1	$21,250	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	0	$0	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	0	$0	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	0	$0	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	0	$0	0	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	0	$0	0	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	0	$0	0	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Restaurants

Average Wage	$17,744	Stand. Dev.	6,000
Employees	850		

Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	410	$6,482,510	166	86	$15,811	66	$27,653	14	$35,006
Very Low	$17,500	$19,999	$18,750	139	$2,606,181	56	29	$18,750	22	$32,793	5	$41,511
Very Low	$20,000	$22,499	$21,250	119	$2,528,691	48	25	$21,250	19	$37,165	4	$47,046
Very Low	$22,500	$24,999	$23,750	86	$2,042,457	35	18	$23,750	14	$41,538	3	$52,581
Very Low	$25,000	$27,499	$26,250	52	$1,364,974	21	11	$26,250	8	$45,910	2	$58,116
Very Low	$27,500	$29,599	$28,550	24	$685,188	10	5	$28,550	4	$49,933	1	$63,209
Low	$29,600	$32,499	$31,050	15	$465,743	9	3	$31,050	4	$54,306	1	$68,744
Low	$32,500	$34,999	$33,750	4	$134,998	2	1	$33,750	1	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	1	$36,250	1	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Other Food Service

Average Wage	$24,064		Stand. Dev.	6,000								
Employees	141											
Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	20	$316,220	8	4	$15,811	3	$27,653	1	$35,006
Very Low	$17,500	$19,999	$18,750	16	$299,992	6	3	$18,750	3	$32,793	1	$41,511
Very Low	$20,000	$22,499	$21,250	21	$446,240	9	4	$21,250	3	$37,165	1	$47,046
Very Low	$22,500	$24,999	$23,750	23	$546,239	9	5	$23,750	4	$41,538	1	$52,581
Very Low	$25,000	$27,499	$26,250	22	$577,489	9	5	$26,250	4	$45,910	1	$58,116
Very Low	$27,500	$29,599	$28,550	15	$428,243	6	3	$28,550	2	$49,933	1	$63,209
Low	$29,600	$32,499	$31,050	14	$434,693	8	3	$31,050	4	$54,306	1	$68,744
Low	$32,500	$34,999	$33,750	6	$202,497	3	1	$33,750	2	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	3	$108,749	2	1	$36,250	1	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	1	$38,750	1	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Bars

Average Wage	$15,724		Stand. Dev.	6,000								
Employees	38											
Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	23	$363,653	9	5	$15,811	4	$27,653	1	$35,006
Very Low	$17,500	$19,999	$18,750	6	$112,497	2	1	$18,750	1	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	4	$84,998	2	1	$21,250	1	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	3	$71,249	1	1	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	1	$26,250	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	1	$28,550	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	0	$0	0	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	0	$0	0	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	0	$0	0	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Drug Stores

Average Wage $27,496 Stand. Dev. 7,000
Employees 61

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	4	$63,244	2	1	$15,811	1	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	4	$74,998	2	1	$18,750	1	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	6	$127,497	2	1	$21,250	1	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	8	$189,996	3	2	$23,750	1	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	9	$236,246	4	2	$26,250	1	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	7	$199,847	3	1	$28,550	1	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	9	$279,446	5	2	$31,050	2	$54,306	1	$68,744
Low	$32,500	$34,999	$33,750	6	$202,497	3	1	$33,750	2	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	4	$144,998	2	1	$36,250	1	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	2	$77,499	1	0	$38,750	1	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	1	$41,250	1	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	1	$43,750	1	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Liquor Stores

Average Wage $20,536 Stand. Dev. 6,000
Employees 10

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	3	$47,433	1	1	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	2	$37,499	1	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	2	$42,499	1	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	1	$23,750	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	1	$26,250	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	1	$28,550	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	0	$0	0	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	0	$0	0	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	0	$0	0	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Specialty Stores

Average Wage	$25,480	Stand. Dev.	7,000
Employees	183		

Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	24	$379,464	10	5	$15,811	4	$27,653	1	$35,006
Very Low	$17,500	$19,999	$18,750	16	$299,992	6	3	$18,750	3	$32,793	1	$41,511
Very Low	$20,000	$22,499	$21,250	22	$467,489	9	5	$21,250	4	$37,165	1	$47,046
Very Low	$22,500	$24,999	$23,750	25	$593,738	10	5	$23,750	4	$41,538	1	$52,581
Very Low	$25,000	$27,499	$26,250	26	$682,487	11	5	$26,250	4	$45,910	1	$58,116
Very Low	$27,500	$29,599	$28,550	20	$570,990	8	4	$28,550	3	$49,933	1	$63,209
Low	$29,600	$32,499	$31,050	22	$683,089	13	5	$31,050	6	$54,306	2	$68,744
Low	$32,500	$34,999	$33,750	13	$438,744	7	3	$33,750	4	$59,028	1	$74,721
Low	$35,000	$37,499	$36,250	8	$289,996	5	2	$36,250	2	$63,400	1	$80,256
Low	$37,500	$39,999	$38,750	4	$154,998	2	1	$38,750	1	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	2	$82,499	1	0	$41,250	1	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	1	$43,750	1	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Catalog and Direct Sales

Average Wage	$60,596	Stand. Dev.	7,000
Employees	15		

Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	0	$0	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	0	$0	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	0	$0	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	0	$0	0	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	0	$0	0	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	0	$0	0	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	1	$48,680	1	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	1	$51,250	1	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	1	$53,750	1	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	2	$112,499	1	1	$56,250	1	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	2	$117,499	1	1	$58,750	1	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	2	$122,499	1	1	$61,250	1	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	2	$127,499	1	1	$63,750	1	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	2	$132,499	1	1	$66,250	1	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	1	$69,270	1	0	$69,270	0	$121,152	0	$153,363

Banks and Financial Institutions

Average Wage $68,036 Stand. Dev. 8,500
Employees 124

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	0	$0	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	0	$0	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	0	$0	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	0	$0	0	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	0	$0	0	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	0	$0	0	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	1	$46,180	1	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	1	$48,680	1	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	2	$102,499	1	1	$51,250	1	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	4	$214,998	3	1	$53,750	1	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	6	$337,497	4	2	$56,250	2	$98,380	1	$124,536
Moderate	$57,500	$59,999	$58,750	8	$469,996	5	2	$58,750	3	$102,753	1	$130,071
Moderate	$60,000	$62,499	$61,250	11	$673,745	7	3	$61,250	3	$107,125	1	$135,606
Moderate	$62,500	$64,999	$63,750	13	$828,744	9	3	$63,750	4	$111,498	1	$141,141
Moderate	$65,000	$67,499	$66,250	14	$927,493	9	4	$66,250	4	$115,870	1	$146,676
Moderate	$67,500	$71,039	$69,270	20	$1,385,390	14	5	$69,270	6	$121,152	2	$153,363

Insurance Carriers

Average Wage $67,860 Stand. Dev. 8,500
Employees 7

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	0	$0	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	0	$0	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	0	$0	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	0	$0	0	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	0	$0	0	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	0	$0	0	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	1	$61,250	1	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	1	$63,750	1	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	1	$66,250	1	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	1	$69,270	1	0	$69,270	0	$121,152	0	$153,363

Insurance Agents and Brokers

Average Wage	$70,428	Stand. Dev.	8,500
Employees	26		

Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	0	$0	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	0	$0	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	0	$0	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	0	$0	0	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	0	$0	0	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	0	$0	0	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	1	$56,250	1	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	1	$58,750	1	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	2	$122,499	1	1	$61,250	1	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	2	$127,499	1	1	$63,750	1	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	3	$198,749	2	1	$66,250	1	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	4	$277,078	3	1	$69,270	1	$121,152	0	$153,363

Real Estate

Average Wage	$48,628	Stand. Dev.	8,500
Employees	245		

Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	0	$0	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	1	$26,250	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	1	$28,550	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	4	$124,198	2	1	$31,050	1	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	6	$202,497	3	1	$33,750	2	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	10	$362,495	6	2	$36,250	3	$63,400	1	$80,256
Low	$37,500	$39,999	$38,750	15	$581,243	9	3	$38,750	4	$67,773	1	$85,791
Low	$40,000	$42,499	$41,250	20	$824,990	11	4	$41,250	6	$72,145	1	$91,326
Low	$42,500	$44,999	$43,750	24	$1,049,988	14	5	$43,750	7	$76,518	2	$96,861
Low	$45,000	$47,359	$46,180	26	$1,200,667	15	6	$46,180	7	$80,768	2	$102,241
Moderate	$47,360	$49,999	$48,680	30	$1,460,385	20	8	$48,680	9	$85,140	3	$107,776
Moderate	$50,000	$52,499	$51,250	27	$1,383,737	18	7	$51,250	9	$89,635	3	$113,466
Moderate	$52,500	$54,999	$53,750	24	$1,289,988	16	6	$53,750	8	$94,008	2	$119,001
Moderate	$55,000	$57,499	$56,250	19	$1,068,741	13	5	$56,250	6	$98,380	2	$124,536
Moderate	$57,500	$59,999	$58,750	14	$822,493	9	4	$58,750	4	$102,753	1	$130,071
Moderate	$60,000	$62,499	$61,250	10	$612,495	7	3	$61,250	3	$107,125	1	$135,606
Moderate	$62,500	$64,999	$63,750	6	$382,497	4	2	$63,750	2	$111,498	1	$141,141
Moderate	$65,000	$67,499	$66,250	3	$198,749	2	1	$66,250	1	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	2	$138,539	1	1	$69,270	1	$121,152	0	$153,363

Hotels and Lodging

Average Wage	$26,084	Stand. Dev.	5,000
Employees	1372		

Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	59	$932,849	24	12	$15,811	9	$27,653	2	$35,006
Very Low	$17,500	$19,999	$18,750	94	$1,762,453	38	20	$18,750	15	$32,793	3	$41,511
Very Low	$20,000	$22,499	$21,250	171	$3,633,665	69	36	$21,250	27	$37,165	6	$47,046
Very Low	$22,500	$24,999	$23,750	243	$5,771,129	99	51	$23,750	39	$41,538	9	$52,581
Very Low	$25,000	$27,499	$26,250	271	$7,113,615	110	57	$26,250	44	$45,910	10	$58,116
Very Low	$27,500	$29,599	$28,550	202	$5,766,999	82	42	$28,550	32	$49,933	7	$63,209
Low	$29,600	$32,499	$31,050	194	$6,023,603	111	43	$31,050	54	$54,306	14	$68,744
Low	$32,500	$34,999	$33,750	86	$2,902,457	49	19	$33,750	24	$59,028	6	$74,721
Low	$35,000	$37,499	$36,250	36	$1,304,982	21	8	$36,250	10	$63,400	3	$80,256
Low	$37,500	$39,999	$38,750	12	$464,994	7	3	$38,750	3	$67,773	1	$85,791
Low	$40,000	$42,499	$41,250	3	$123,749	2	1	$41,250	1	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	1	$43,750	1	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Dry Cleaning and Laundry

Average Wage	$26,004	Stand. Dev.	7,000
Employees	24		

Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	3	$47,433	1	1	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	2	$37,499	1	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	3	$63,749	1	1	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	3	$71,249	1	1	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	3	$78,749	1	1	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	3	$85,649	1	1	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	3	$93,149	2	1	$31,050	1	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	2	$67,499	1	0	$33,750	1	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	1	$36,250	1	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	1	$38,750	1	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Beauty and Barber Shops

Average Wage	$20,556	Stand. Dev.	6,500
Employees	60		

Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	19	$300,409	8	4	$15,811	3	$27,653	1	$35,006
Very Low	$17,500	$19,999	$18,750	9	$168,746	4	2	$18,750	1	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	9	$191,246	4	2	$21,250	1	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	8	$189,996	3	2	$23,750	1	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	6	$157,497	2	1	$26,250	1	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	4	$114,198	2	1	$28,550	1	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	3	$93,149	2	1	$31,050	1	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	1	$33,750	1	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	1	$36,250	1	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Other Personal Service

Average Wage	$24,156	Stand. Dev.	6,500
Employees	57		

Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	8	$126,488	3	2	$15,811	1	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	6	$112,497	2	1	$18,750	1	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	8	$169,996	3	2	$21,250	1	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	9	$213,746	4	2	$23,750	1	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	8	$209,996	3	2	$26,250	1	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	6	$171,297	2	1	$28,550	1	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	6	$186,297	3	1	$31,050	2	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	3	$101,249	2	1	$33,750	1	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	2	$72,499	1	0	$36,250	1	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	1	$38,750	1	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Advertising

Average Wage	$51,372	Stand. Dev.	8,500
Employees	18		

Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	0	$0	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	0	$0	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	0	$0	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	0	$0	0	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	0	$0	0	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	0	$0	0	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	1	$38,750	1	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	1	$41,250	1	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	1	$43,750	1	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	2	$92,359	1	0	$46,180	1	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	3	$146,039	2	1	$48,680	1	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	3	$153,749	2	1	$51,250	1	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	2	$107,499	1	1	$53,750	1	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	2	$112,499	1	1	$56,250	1	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	1	$58,750	1	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	1	$61,250	1	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	1	$63,750	1	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Computer Services

Average Wage	$80,036	Stand. Dev.	8,500
Employees	91		

Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	0	$0	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	0	$0	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	0	$0	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	0	$0	0	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	0	$0	0	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	0	$0	0	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	1	$61,250	1	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	2	$127,499	1	1	$63,750	1	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	3	$198,749	2	1	$66,250	1	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	7	$484,887	5	2	$69,270	2	$121,152	1	$153,363

Other Business Services

Average Wage	$38,240	Stand. Dev.	7,000
Employees	759		

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	2	$31,622	1	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	2	$37,499	1	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	6	$127,497	2	1	$21,250	1	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	13	$308,744	5	3	$23,750	2	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	25	$656,238	10	5	$26,250	4	$45,910	1	$58,116
Very Low	$27,500	$29,599	$28,550	35	$999,233	14	7	$28,550	6	$49,933	1	$63,209
Low	$29,600	$32,499	$31,050	74	$2,297,663	42	17	$31,050	20	$54,306	5	$68,744
Low	$32,500	$34,999	$33,750	88	$2,969,956	51	20	$33,750	24	$59,028	6	$74,721
Low	$35,000	$37,499	$36,250	103	$3,733,699	59	23	$36,250	28	$63,400	8	$80,256
Low	$37,500	$39,999	$38,750	107	$4,146,197	61	24	$38,750	30	$67,773	8	$85,791
Low	$40,000	$42,499	$41,250	98	$4,042,451	56	22	$41,250	27	$72,145	7	$91,326
Low	$42,500	$44,999	$43,750	79	$3,456,211	45	18	$43,750	22	$76,518	6	$96,861
Low	$45,000	$47,359	$46,180	54	$2,493,693	31	12	$46,180	15	$80,768	4	$102,241
Moderate	$47,360	$49,999	$48,680	38	$1,849,821	26	10	$48,680	12	$85,140	4	$107,776
Moderate	$50,000	$52,499	$51,250	19	$973,741	13	5	$51,250	6	$89,635	2	$113,466
Moderate	$52,500	$54,999	$53,750	9	$483,746	6	2	$53,750	3	$94,008	1	$119,001
Moderate	$55,000	$57,499	$56,250	4	$224,998	3	1	$56,250	1	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	2	$117,499	1	1	$58,750	1	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	1	$61,250	1	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Auto Repair/Services

Average Wage	$30,084	Stand. Dev.	6,500
Employees	107		

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	2	$31,622	1	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	4	$74,998	2	1	$18,750	1	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	7	$148,747	3	1	$21,250	1	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	10	$237,495	4	2	$23,750	2	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	14	$367,493	6	3	$26,250	2	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	13	$371,144	5	3	$28,550	2	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	19	$589,941	11	4	$31,050	5	$54,306	1	$68,744
Low	$32,500	$34,999	$33,750	14	$472,493	8	3	$33,750	4	$59,028	1	$74,721
Low	$35,000	$37,499	$36,250	10	$362,495	6	2	$36,250	3	$63,400	1	$80,256
Low	$37,500	$39,999	$38,750	7	$271,247	4	2	$38,750	2	$67,773	1	$85,791
Low	$40,000	$42,499	$41,250	4	$164,998	2	1	$41,250	1	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	2	$87,499	1	0	$43,750	1	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	1	$46,180	1	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Miscellaneous Repair Services

Average Wage	$52,908		Stand. Dev.	6,500							
Employees	22										

Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	0	$0	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	0	$0	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	0	$0	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	0	$0	0	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	0	$0	0	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	0	$0	0	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	1	$41,250	1	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	1	$43,750	1	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	2	$92,359	1	0	$46,180	1	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	3	$146,039	2	1	$48,680	1	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	4	$204,998	3	1	$51,250	1	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	4	$214,998	3	1	$53,750	1	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	3	$168,749	2	1	$56,250	1	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	2	$117,499	1	1	$58,750	1	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	1	$61,250	1	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	1	$63,750	1	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Motion Pictures

Average Wage	$47,024		Stand. Dev.	6,500							
Employees	51										

Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	0	$0	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	0	$0	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	0	$0	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	0	$0	0	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	1	$33,750	1	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	2	$72,499	1	0	$36,250	1	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	3	$116,249	2	1	$38,750	1	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	5	$206,248	3	1	$41,250	1	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	7	$306,247	4	2	$43,750	2	$76,518	1	$96,861
Low	$45,000	$47,359	$46,180	7	$323,257	4	2	$46,180	2	$80,768	1	$102,241
Moderate	$47,360	$49,999	$48,680	8	$389,436	5	2	$48,680	3	$85,140	1	$107,776
Moderate	$50,000	$52,499	$51,250	6	$307,497	4	2	$51,250	2	$89,635	1	$113,466
Moderate	$52,500	$54,999	$53,750	6	$322,497	4	2	$53,750	2	$94,008	1	$119,001
Moderate	$55,000	$57,499	$56,250	3	$168,749	2	1	$56,250	1	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	2	$117,499	1	1	$58,750	1	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	1	$61,250	1	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Entertainment and Recreation Services

Average Wage	$29,512	Stand. Dev.	6,000
Employees	193		

Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	3	$47,433	1	1	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	7	$131,247	3	1	$18,750	1	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	13	$276,244	5	3	$21,250	2	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	20	$474,990	8	4	$23,750	3	$41,538	1	$52,581
Very Low	$25,000	$27,499	$26,250	28	$734,986	11	6	$26,250	5	$45,910	1	$58,116
Very Low	$27,500	$29,599	$28,550	26	$742,287	11	5	$28,550	4	$49,933	1	$63,209
Low	$29,600	$32,499	$31,050	36	$1,117,782	21	8	$31,050	10	$54,306	3	$68,744
Low	$32,500	$34,999	$33,750	25	$843,738	14	6	$33,750	7	$59,028	2	$74,721
Low	$35,000	$37,499	$36,250	17	$616,242	10	4	$36,250	5	$63,400	1	$80,256
Low	$37,500	$39,999	$38,750	10	$387,495	6	2	$38,750	3	$67,773	1	$85,791
Low	$40,000	$42,499	$41,250	5	$206,248	3	1	$41,250	1	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	2	$87,499	1	0	$43,750	1	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	1	$46,180	1	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Health and Medical Services

Average Wage	$51,644	Stand. Dev.	8,500
Employees	205		

Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	0	$0	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	0	$0	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	1	$28,550	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	2	$62,099	1	0	$31,050	1	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	3	$101,249	2	1	$33,750	1	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	5	$181,248	3	1	$36,250	1	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	8	$309,996	5	2	$38,750	2	$67,773	1	$85,791
Low	$40,000	$42,499	$41,250	11	$453,745	6	2	$41,250	3	$72,145	1	$91,326
Low	$42,500	$44,999	$43,750	16	$699,992	9	4	$43,750	4	$76,518	1	$96,861
Low	$45,000	$47,359	$46,180	18	$831,231	10	4	$46,180	5	$80,768	1	$102,241
Moderate	$47,360	$49,999	$48,680	24	$1,168,308	16	6	$48,680	8	$85,140	2	$107,776
Moderate	$50,000	$52,499	$51,250	24	$1,229,988	16	6	$51,250	8	$89,635	2	$113,466
Moderate	$52,500	$54,999	$53,750	23	$1,236,239	16	6	$53,750	7	$94,008	2	$119,001
Moderate	$55,000	$57,499	$56,250	21	$1,181,240	14	6	$56,250	7	$98,380	2	$124,536
Moderate	$57,500	$59,999	$58,750	17	$998,742	12	5	$58,750	5	$102,753	2	$130,071
Moderate	$60,000	$62,499	$61,250	13	$796,244	9	3	$61,250	4	$107,125	1	$135,606
Moderate	$62,500	$64,999	$63,750	9	$573,746	6	2	$63,750	3	$111,498	1	$141,141
Moderate	$65,000	$67,499	$66,250	6	$397,497	4	2	$66,250	2	$115,870	1	$146,676
Moderate	$67,500	$71,039	$69,270	4	$277,078	3	1	$69,270	1	$121,152	0	$153,363

Hospitals

Average Wage	$48,104		Stand. Dev.	7,000							
Employees	218										

Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	1	$15,811	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	0	$0	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	0	$0	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	1	$28,550	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	2	$62,099	1	0	$31,050	1	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	4	$134,998	2	1	$33,750	1	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	7	$253,747	4	2	$36,250	2	$63,400	1	$80,256
Low	$37,500	$39,999	$38,750	13	$503,744	7	3	$38,750	4	$67,773	1	$85,791
Low	$40,000	$42,499	$41,250	19	$783,741	11	4	$41,250	5	$72,145	1	$91,326
Low	$42,500	$44,999	$43,750	26	$1,137,487	15	6	$43,750	7	$76,518	2	$96,861
Low	$45,000	$47,359	$46,180	28	$1,293,026	16	6	$46,180	8	$80,768	2	$102,241
Moderate	$47,360	$49,999	$48,680	32	$1,557,744	22	8	$48,680	10	$85,140	3	$107,776
Moderate	$50,000	$52,499	$51,250	28	$1,434,986	19	7	$51,250	9	$89,635	3	$113,466
Moderate	$52,500	$54,999	$53,750	22	$1,182,489	15	6	$53,750	7	$94,008	2	$119,001
Moderate	$55,000	$57,499	$56,250	16	$899,992	11	4	$56,250	5	$98,380	2	$124,536
Moderate	$57,500	$59,999	$58,750	10	$587,495	7	3	$58,750	3	$102,753	1	$130,071
Moderate	$60,000	$62,499	$61,250	5	$306,248	3	1	$61,250	2	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	3	$191,249	2	1	$63,750	1	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	1	$66,250	1	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Legal Services

Average Wage	$110,252		Stand. Dev.	7,000							
Employees	17										

Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	0	$0	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	0	$0	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	0	$0	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	0	$0	0	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	0	$0	0	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	0	$0	0	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Primary and Secondary Education

Average Wage	$43,400	Stand. Dev.	6,500
Employees	322		

Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	1	$23,750	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	2	$52,499	1	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	3	$85,649	1	1	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	10	$310,495	6	2	$31,050	3	$54,306	1	$68,744
Low	$32,500	$34,999	$33,750	17	$573,742	10	4	$33,750	5	$59,028	1	$74,721
Low	$35,000	$37,499	$36,250	27	$978,737	15	6	$36,250	7	$63,400	2	$80,256
Low	$37,500	$39,999	$38,750	38	$1,472,481	22	9	$38,750	11	$67,773	3	$85,791
Low	$40,000	$42,499	$41,250	47	$1,938,727	27	11	$41,250	13	$72,145	3	$91,326
Low	$42,500	$44,999	$43,750	49	$2,143,726	28	11	$43,750	14	$76,518	4	$96,861
Low	$45,000	$47,359	$46,180	42	$1,939,539	24	9	$46,180	12	$80,768	3	$102,241
Moderate	$47,360	$49,999	$48,680	37	$1,801,142	25	10	$48,680	12	$85,140	4	$107,776
Moderate	$50,000	$52,499	$51,250	24	$1,229,988	16	6	$51,250	8	$89,635	2	$113,466
Moderate	$52,500	$54,999	$53,750	14	$752,493	9	4	$53,750	4	$94,008	1	$119,001
Moderate	$55,000	$57,499	$56,250	7	$393,747	5	2	$56,250	2	$98,380	1	$124,536
Moderate	$57,500	$59,999	$58,750	3	$176,249	2	1	$58,750	1	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	1	$61,250	1	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Colleges and Universities

Average Wage	$52,488	Stand. Dev.	7,000
Employees	72		

Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	0	$0	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	0	$0	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	0	$0	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	0	$0	0	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	0	$0	0	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	1	$36,250	1	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	2	$77,499	1	0	$38,750	1	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	3	$123,749	2	1	$41,250	1	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	5	$218,748	3	1	$43,750	1	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	6	$277,077	3	1	$46,180	2	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	9	$438,116	6	2	$48,680	3	$85,140	1	$107,776
Moderate	$50,000	$52,499	$51,250	10	$512,495	7	3	$51,250	3	$89,635	1	$113,466
Moderate	$52,500	$54,999	$53,750	10	$537,495	7	3	$53,750	3	$94,008	1	$119,001
Moderate	$55,000	$57,499	$56,250	9	$506,246	6	2	$56,250	3	$98,380	1	$124,536
Moderate	$57,500	$59,999	$58,750	7	$411,247	5	2	$58,750	2	$102,753	1	$130,071
Moderate	$60,000	$62,499	$61,250	5	$306,248	3	1	$61,250	2	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	3	$191,249	2	1	$63,750	1	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	2	$132,499	1	1	$66,250	1	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Other Education and Libraries

Average Wage	$34,640	Stand. Dev.	7,000
Employees	26		

Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	1	$23,750	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	2	$52,499	1	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	2	$57,099	1	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	4	$124,198	2	1	$31,050	1	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	5	$168,748	3	1	$33,750	1	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	4	$144,998	2	1	$36,250	1	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	3	$116,249	2	1	$38,750	1	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	2	$82,499	1	0	$41,250	1	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	2	$87,499	1	0	$43,750	1	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	1	$46,180	1	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Social Services

Average Wage	$24,408	Stand. Dev.	5,500
Employees	80		

Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	9	$142,299	4	2	$15,811	1	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	9	$168,746	4	2	$18,750	1	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	12	$254,994	5	3	$21,250	2	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	14	$332,493	6	3	$23,750	2	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	14	$367,493	6	3	$26,250	2	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	9	$256,946	4	2	$28,550	1	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	8	$248,396	5	2	$31,050	2	$54,306	1	$68,744
Low	$32,500	$34,999	$33,750	3	$101,249	2	1	$33,750	1	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	1	$36,250	1	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	1	$38,750	1	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Child Care Services

Average Wage	$19,284	Stand. Dev.	5,000
Employees	37		

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	13	$205,543	5	3	$15,811	2	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	7	$131,247	3	1	$18,750	1	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	7	$148,747	3	1	$21,250	1	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	5	$118,748	2	1	$23,750	1	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	3	$78,749	1	1	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	1	$28,550	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	1	$31,050	1	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	0	$0	0	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	0	$0	0	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Museums and Zoos

Average Wage	$24,788	Stand. Dev.	7,000
Employees	1		

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	1	$15,811	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	0	$0	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	0	$0	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	0	$0	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	0	$0	0	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	0	$0	0	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	0	$0	0	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	0	$0	0	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	0	$0	0	0	$41,250	0	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	0	$0	0	0	$43,750	0	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	0	$0	0	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Membership Organizations

Average Wage	$30,896	Stand. Dev.	6,000
Employees	95		

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	2	$37,499	1	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	4	$84,998	2	1	$21,250	1	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	8	$189,996	3	2	$23,750	1	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	12	$314,994	5	3	$26,250	2	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	12	$342,594	5	3	$28,550	2	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	18	$558,891	10	4	$31,050	5	$54,306	1	$68,744
Low	$32,500	$34,999	$33,750	14	$472,493	8	3	$33,750	4	$59,028	1	$74,721
Low	$35,000	$37,499	$36,250	11	$398,745	6	2	$36,250	3	$63,400	1	$80,256
Low	$37,500	$39,999	$38,750	7	$271,247	4	2	$38,750	2	$67,773	1	$85,791
Low	$40,000	$42,499	$41,250	4	$164,998	2	1	$41,250	1	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	2	$87,499	1	0	$43,750	1	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	1	$46,180	1	0	$46,180	0	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	0	$0	0	0	$48,680	0	$85,140	0	$107,776
Moderate	$50,000	$52,499	$51,250	0	$0	0	0	$51,250	0	$89,635	0	$113,466
Moderate	$52,500	$54,999	$53,750	0	$0	0	0	$53,750	0	$94,008	0	$119,001
Moderate	$55,000	$57,499	$56,250	0	$0	0	0	$56,250	0	$98,380	0	$124,536
Moderate	$57,500	$59,999	$58,750	0	$0	0	0	$58,750	0	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	0	$0	0	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Professional Services

Average Wage	$53,508	Stand. Dev.	7,000
Employees	198		

Income Group	Wage Ranges Low	Wage Ranges High	Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	0	$0	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	0	$0	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	0	$0	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	0	$0	0	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	1	$33,750	1	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	1	$36,250	1	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	3	$116,249	2	1	$38,750	1	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	6	$247,497	3	1	$41,250	2	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	11	$481,245	6	2	$43,750	3	$76,518	1	$96,861
Low	$45,000	$47,359	$46,180	15	$692,693	9	3	$46,180	4	$80,768	1	$102,241
Moderate	$47,360	$49,999	$48,680	23	$1,119,629	16	6	$48,680	7	$85,140	2	$107,776
Moderate	$50,000	$52,499	$51,250	27	$1,383,737	18	7	$51,250	9	$89,635	3	$113,466
Moderate	$52,500	$54,999	$53,750	28	$1,504,986	19	7	$53,750	9	$94,008	3	$119,001
Moderate	$55,000	$57,499	$56,250	26	$1,462,487	18	7	$56,250	8	$98,380	3	$124,536
Moderate	$57,500	$59,999	$58,750	21	$1,233,740	14	6	$58,750	7	$102,753	2	$130,071
Moderate	$60,000	$62,499	$61,250	15	$918,743	10	4	$61,250	5	$107,125	1	$135,606
Moderate	$62,500	$64,999	$63,750	10	$637,495	7	3	$63,750	3	$111,498	1	$141,141
Moderate	$65,000	$67,499	$66,250	5	$331,248	3	1	$66,250	2	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	3	$207,809	2	1	$69,270	1	$121,152	0	$153,363

Government

Average Wage	$43,944		Stand. Dev.	6,500							
Employees	283										

Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	0	$0	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	1	$26,250	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	2	$57,099	1	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	7	$217,347	4	2	$31,050	2	$54,306	1	$68,744
Low	$32,500	$34,999	$33,750	13	$438,744	7	3	$33,750	4	$59,028	1	$74,721
Low	$35,000	$37,499	$36,250	22	$797,489	13	5	$36,250	6	$63,400	2	$80,256
Low	$37,500	$39,999	$38,750	31	$1,201,235	18	7	$38,750	9	$67,773	2	$85,791
Low	$40,000	$42,499	$41,250	40	$1,649,980	23	9	$41,250	11	$72,145	3	$91,326
Low	$42,500	$44,999	$43,750	43	$1,881,229	25	10	$43,750	12	$76,518	3	$96,861
Low	$45,000	$47,359	$46,180	41	$1,893,360	24	9	$46,180	11	$80,768	3	$102,241
Moderate	$47,360	$49,999	$48,680	35	$1,703,783	24	9	$48,680	11	$85,140	3	$107,776
Moderate	$50,000	$52,499	$51,250	23	$1,178,739	16	6	$51,250	7	$89,635	2	$113,466
Moderate	$52,500	$54,999	$53,750	14	$752,493	9	4	$53,750	4	$94,008	1	$119,001
Moderate	$55,000	$57,499	$56,250	7	$393,747	5	2	$56,250	2	$98,380	1	$124,536
Moderate	$57,500	$59,999	$58,750	3	$176,249	2	1	$58,750	1	$102,753	0	$130,071
Moderate	$60,000	$62,499	$61,250	1	$61,250	1	0	$61,250	0	$107,125	0	$135,606
Moderate	$62,500	$64,999	$63,750	0	$0	0	0	$63,750	0	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	0	$0	0	0	$66,250	0	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	0	$0	0	0	$69,270	0	$121,152	0	$153,363

Unclassified Establishments

Average Wage	$54,244		Stand. Dev.	7,500							
Employees	66										

Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	0	$0	0	0	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	0	$0	0	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	0	$0	0	0	$21,250	0	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	0	$0	0	0	$23,750	0	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	0	$0	0	0	$26,250	0	$45,910	0	$58,116
Very Low	$27,500	$29,599	$28,550	0	$0	0	0	$28,550	0	$49,933	0	$63,209
Low	$29,600	$32,499	$31,050	0	$0	0	0	$31,050	0	$54,306	0	$68,744
Low	$32,500	$34,999	$33,750	0	$0	0	0	$33,750	0	$59,028	0	$74,721
Low	$35,000	$37,499	$36,250	1	$36,250	1	0	$36,250	0	$63,400	0	$80,256
Low	$37,500	$39,999	$38,750	1	$38,750	1	0	$38,750	0	$67,773	0	$85,791
Low	$40,000	$42,499	$41,250	2	$82,499	1	0	$41,250	1	$72,145	0	$91,326
Low	$42,500	$44,999	$43,750	3	$131,249	2	1	$43,750	1	$76,518	0	$96,861
Low	$45,000	$47,359	$46,180	5	$230,898	3	1	$46,180	1	$80,768	0	$102,241
Moderate	$47,360	$49,999	$48,680	7	$340,757	5	2	$48,680	2	$85,140	1	$107,776
Moderate	$50,000	$52,499	$51,250	8	$409,996	5	2	$51,250	3	$89,635	1	$113,466
Moderate	$52,500	$54,999	$53,750	9	$483,746	6	2	$53,750	3	$94,008	1	$119,001
Moderate	$55,000	$57,499	$56,250	8	$449,996	5	2	$56,250	3	$98,380	1	$124,536
Moderate	$57,500	$59,999	$58,750	7	$411,247	5	2	$58,750	2	$102,753	1	$130,071
Moderate	$60,000	$62,499	$61,250	6	$367,497	4	2	$61,250	2	$107,125	1	$135,606
Moderate	$62,500	$64,999	$63,750	4	$254,998	3	1	$63,750	1	$111,498	0	$141,141
Moderate	$65,000	$67,499	$66,250	2	$132,499	1	1	$66,250	1	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	2	$138,539	1	1	$69,270	1	$121,152	0	$153,363

Other												
Average Wage	$42,604		Stand. Dev.	8,000								
Employees	1546											
Income Group	Wage Ranges		Midpoint	Number of Employees	Total Wages	Heads of Household	Single Worker HHs	HH Income	2-Worker HHs	HH Income	3+ Worker HHs	HH Income
	Low	High										
Very Low	$14,123	$17,499	$15,811	3	$47,433	1	1	$15,811	0	$27,653	0	$35,006
Very Low	$17,500	$19,999	$18,750	2	$37,499	1	0	$18,750	0	$32,793	0	$41,511
Very Low	$20,000	$22,499	$21,250	6	$127,497	2	1	$21,250	1	$37,165	0	$47,046
Very Low	$22,500	$24,999	$23,750	12	$284,994	5	3	$23,750	2	$41,538	0	$52,581
Very Low	$25,000	$27,499	$26,250	24	$629,988	10	5	$26,250	4	$45,910	1	$58,116
Very Low	$27,500	$29,599	$28,550	35	$999,233	14	7	$28,550	6	$49,933	1	$63,209
Low	$29,600	$32,499	$31,050	79	$2,452,911	45	18	$31,050	22	$54,306	6	$68,744
Low	$32,500	$34,999	$33,750	105	$3,543,698	60	24	$33,750	29	$59,028	8	$74,721
Low	$35,000	$37,499	$36,250	140	$5,074,930	80	31	$36,250	39	$63,400	10	$80,256
Low	$37,500	$39,999	$38,750	171	$6,626,165	98	38	$38,750	47	$67,773	13	$85,791
Low	$40,000	$42,499	$41,250	189	$7,796,156	108	42	$41,250	52	$72,145	14	$91,326
Low	$42,500	$44,999	$43,750	190	$8,312,405	109	43	$43,750	53	$76,518	14	$96,861
Low	$45,000	$47,359	$46,180	164	$7,573,438	94	37	$46,180	45	$80,768	12	$102,241
Moderate	$47,360	$49,999	$48,680	152	$7,399,284	103	40	$48,680	48	$85,140	15	$107,776
Moderate	$50,000	$52,499	$51,250	108	$5,534,946	73	29	$51,250	34	$89,635	11	$113,466
Moderate	$52,500	$54,999	$53,750	73	$3,923,714	49	19	$53,750	23	$94,008	7	$119,001
Moderate	$55,000	$57,499	$56,250	45	$2,531,228	31	12	$56,250	14	$98,380	4	$124,536
Moderate	$57,500	$59,999	$58,750	25	$1,468,738	17	7	$58,750	8	$102,753	2	$130,071
Moderate	$60,000	$62,499	$61,250	13	$796,244	9	3	$61,250	4	$107,125	1	$135,606
Moderate	$62,500	$64,999	$63,750	6	$382,497	4	2	$63,750	2	$111,498	1	$141,141
Moderate	$65,000	$67,499	$66,250	3	$198,749	2	1	$66,250	1	$115,870	0	$146,676
Moderate	$67,500	$71,039	$69,270	1	$69,270	1	0	$69,270	0	$121,152	0	$153,363

APPENDIX D

HTZ Apartment Complex Inventory

Apartment Name	Units	Rent Low	Rent High	Occupancy
ROYAL PLACE	100	$630	$890	95%
PARK HAMILTON	330	$520	$899	70%
KENSINGTON COTTAGES	169	$540	$795	85%
PARK AVENUE VILLAS	120	$658	$768	96%
LAUREL HILLS	105	$715	$740	97%
MISTY OAKS	251	$575	$800	89%
INLAND SEAS	112	$615	$865	95%
WINTER GARDEN VILLAGE	64	$670	$670	98%
VILLAS AT PINE HILLS	96	$885	$885	97%
SILVER OAKS	320	$645	$750	75%
SILVER PINES	240	$731	$842	80%
SILVER COVE	192	$683	$785	92%
WOODHILL	450	$566	$781	95%
BEACON HILL	192	$712	$832	94%
WOODRIDGE	254	$567	$782	97%
SEMINOLE RIDGE	240	$724	$934	96%
VILLA TUSCANY	342	$845	$1,247	91%
SILVER HILLS	272	$689	$804	96%
WELLESLEY	312	$609	$833	97%
CLARCONA GROVES	264	$680	$880	95%
ALTA WESTGATE	240	$665	$765	97%
LAKE LUCERNE TOWERS	157	$800	$1,300	95%
ANDOVER PLACE I	200	$650	$885	94%
SOUTHRIDGE	324	$520	$695	95%
HAMPTON COURT	64	$635	$725	98%
CYPRESS LANDING	246	$637	$995	92%
LANCASTER VILLAS	145	$595	$695	93%
GREENWICH PARK	256	$772	$817	87%
CHOWDER BAY	304	$600	$960	89%
PINEHURST PARK	296	$595	$1,034	79%
ROYAL PALMS	288	$620	$750	95%
STONERIDGE	157	$570	$880	95%
SUMMERSET	261	$550	$830	96%
CHATEAU ORLEANS	98	$550	$850	96%
WOOD HOLLOW	318	$537	$814	97%
MILLENIA WEST	200	$565	$969	96%
ROYALE GRAND	768	$615	$860	83%
MARBELLA LAKE	200	$645	$870	86%
TUSCANY VILLAGE	108	$695	$825	94%
DUNWOODIE PLACE	172	$671	$764	95%
ROYAL SPRINGS	149	$573	$865	97%
CARLTON ARMS SOUTH	558	$509	$910	81%
CRESCENT CLUB	215	$564	$676	92%
COURTYARD VILLAS	80	$595	$595	92%
MILLENIUM POINTE	200	$625	$915	85%
HIDDEN COVE	128	$598	$715	85%
LAKE JASMINE	336	$609	$1,040	73%

Apartment Name	Units	Rent Low	Rent High	Occupancy
BELLA CASA	96	$899	$899	98%
OAKWOOD	302	$825	$900	95%
VILLAS AT WALDENGREEN	278	$600	$850	93%
PINES AT MONTEREY	214	$825	$1,250	96%
COCONUT PALMS	296	$699	$1,049	95%
GREEN GABLES	95	$525	$814	100%
GOVERNOR'S MANOR	120	$563	$673	98%
OAK GROVE I	86	$595	$850	91%
BEACH CLUB ON LAKE BUCHANAN	156	$685	$685	76%
CITY WEST	300	$755	$935	80%
CYPRESS GREENS	252	$680	$1,034	87%
ISLAND CLUB I	312	$697	$1,073	84%
HOLLEY GARDENS	257	$555	$575	98%
KIRKMAN APARTMENTS	370	$775	$1,225	89%
ISLAND CLUB I1	160	$699	$1,073	84%
FOXHOLLOW	155	$694	$807	98%
STERLING CREST	360	$774	$1,134	74%
LANDINGS AT TIMBERLEAF	240	$648	$750	98%
RIDGE CLUB	372	$597	$806	97%
CITRUS GLEN	272	$731	$842	91%
MISSION POINTE	248	$596	$803	100%
OAK GROVE I1	62	$699	$850	85%
OAK HARBOR	176	$731	$842	90%
HIDDEN CREEK VILLAS	304	$696	$893	98%
ANDOVER PLACE I1	200	$665	$1,055	94%
CARIBBEAN KEY	352	$600	$896	95%
POINTE VISTA I	100	$706	$903	94%
POINTE VISTA I1	288	$706	$903	90%
WATERVIEW CLUB	172	$597	$886	99%
TIMBER SOUND	240	$706	$809	81%
WILLOW KEY	387	$707	$890	97%
METRO PLACE	536	$702	$904	88%
BUCHANAN BAY	228	$843	$843	76%
MIDDLEBROOK FARMS	320	$945	$1,550	94%
GRAND POINTE	276	$667	$854	95%
SAND LAKE POINTE	312	$698	$897	97%
GLENN AT MILLENIA	192	$599	$893	95%
BRENTWOOD CLUB AT MILLENIA	312	$600	$899	99%
LANDINGS ON MILLENIA BLM.	336	$602	$906	95%
NORTHBRIDGE ON MILLENIA LAKE	607	$989	$1,709	89%
BELLE ISLE	336	$490	$723	95%
HERITAGE ON MILLENIA	303	$955	$1,445	95%
PLACE ON MILLENIA BLVD.	371	$1,001	$1,651	90%
SAVANNAH AT PARK CENTRAL	288	$1,030	$1,455	90%
ROYAL SUMMIT	188	$618	$805	91%
MONTEREY LAKE	504	$919	$1,249	97%
MCKINLEY AT WESTWOOD SUITES	112	$1,449	$1,449	100%
BROADWATER	408	$835	$985	91%

Apartment Name	Units	Rent Low	Rent High	Occupancy
VININGS AT WESTWOOD	400	$800	$1,225	94%
SABAL PALM AT LAKE BUENA VISTA	400	$755	$1,195	96%
OSPREY LINKS	424	$895	$1,505	93%
COLONIAL GRAND AT HUNTER'S CREEK	496	$811	$1,138	95%
COMMONS AT LITTLE LAKE BRYAN	280			0%
COLONIAL GRAND AT HEATHER GLEN	448	$910	$1,234	99%
FALCONS TRACE	252	$592	$883	99%
WATERBRIDGE	280	$584	$786	99%
PARKS AT HUNTER'S CREEK	560	$875	$1,260	95%
COTTAGES AT HUNTER'S CREEK	530	$825	$1,575	83%
CHATHAM SQUARE	448			0%
CAMDEN HUNTER'S CREEK	270	$837	$1,191	97%
CAMDEN WORLD GATEWAY	408	$831	$1,286	98%
PINNACLE COVE	420	$655	$971	99%
COURTNEY CHASE	288	$919	$1,294	98%
BERKSHIRE CLUB	288	$585	$872	99%
PINNACLE POINTE	268	$609	$928	99%
VENUE	306	$911	$1,535	92%
WEST OAKS	281	$590	$690	87%
HIAWASSEE OAKS	100	$555	$800	95%
WEST WINDS	272	$740	$964	97%
HIDDEN LAKE	196	$675	$940	97%
WINTER WOODS I & I1	100	$519	$899	93%
PORTOFINO	167	$885	$1,499	98%
TWELVE OAKS AT WINDERMERE I	276	$760	$1,199	89%
LEXINGTON PARK	252	$690	$830	90%
OAK FOREST	408	$775	$1,112	93%
MONTEVISTA	360	$720	$1,125	92%
COLONIAL RIDGE	194	$845	$905	84%
VISTA VERDE	200	$910	$1,110	95%
PROMENADE	200	$830	$1,175	92%
MARINA LANDING	259	$741	$1,100	95%
SUMMIT AT METROWEST	280	$765	$1,085	90%
TWELVE OAKS AT WINDERMERE I1	284	$760	$1,199	92%
COUNTRY GARDENS	184	$567	$781	98%
BUENA VISTA POINT	324	$623	$817	97%
MYSTIC POINTE I	373	$585	$801	70%
SABAL PALM AT METROWEST I	411	$790	$1,435	94%
SABAL PALM AT METROWEST I1	456	$713	$1,370	95%
VIZCAYA LAKES I & I1	522	$585	$835	95%
GATES OF HARBORTOWN	428	$850	$1,450	92%
BUENA VISTA PLACE	340	$623	$817	96%
WESTBROOK	234	$573	$787	99%
ALEXANDRIA	336	$845	$1,240	94%
KEY ISLE AT WINDERMERE	282	$830	$1,200	93%
MYSTIC POINTE	265	$697	$876	98%
WEST POINTE VILLAS	288	$715	$922	99%
PARC VUE	336	$845	$1,240	94%

Apartment Name	Units	Rent Low	Rent High	Occupancy
HAWTHORNE GROVES	328	$855	$1,270	97%
LAPALAZZA	510	$945	$1,660	96%
BALA SANDS	298	$988	$1,333	92%
ESTATES AT PARK AVENUE	432	$955	$1,695	92%
PEBBLE CREEK	72	$534	$646	90%
POLO RUN 11	136	$530	$750	83%
TIFFANY SQUARE	88	$675	$675	99%
SUN CLUB	128	$550	$550	96%
POLO RUN I	132	$640	$755	83%
BELLEZA	176	$775	$1,070	87%
DORADO APARTMENTS	367	$625	$950	80%
THREE FOUNTAINS	192	$539	$629	99%
OUTRIGGER VILLAGE	192	$576	$690	95%
WOODS IDE	208	$554	$736	91%
HEATHERWOOD I & I1	108	$550	$819	87%
VINYARDS I	200	$640	$1,013	94%
VINYARDS I1	200	$600	$950	94%
HERON LAKE	264	$629	$908	97%
SIMPSON RIDGE	169	$550	$800	95%
WILLOWS VILLAGE I & I1	91	$394	$439	99%
PINEWOOD PARK	204	$720	$925	90%
CARIBBEAN ISLE	430	$750	$975	90%
BREEZEWOOD VILLAGE	130	$404	$433	100%
LAKE TIVOLI	384	$765	$1,150	85%
REEF CLUB	560	$605	$837	98%
WELLINGTON WOODS	360	$605	$932	96%
RAVENWOOD	184	$555	$747	98%
CRESTWOOD	216	$543	$735	92%
ST. CLOUD VILLAGE	208	$585	$801	96%
TIERRA VISTA	152	$728	$932	94%
NEPTUNE BAY	250	$900	$1,000	91%
COBBLESTONE	421	$597	$902	94%
KENS INGTON	289	$600	$872	92%
ARROW RIDGE	320	$605	$932	97%
SAWYER ESTATES	192	$522	$707	99%
WHISTLER'S PARK	160	$565	$756	100%
LEGENDS	252	$780	$1,315	95%
SUMMER COVE	192	$569	$858	96%
WALDEN PARK	300	$562	$789	98%
REGATTA BAY	344	$605	$932	99%
GRANDE COURT AT BOGGY CREEK	394	$597	$813	93%
ACADEMY VILLAGE	432	$715	$890	94%
RAPALLO	260	$880	$1,525	23%
AURORA AT CAGAN CROSSINGS	434	$430	$630	100%
LUNA DULCE	330	$585	$799	54%
RIDGEPOINTE AT CAGAN CROSSINGS	560	$695	$935	99%
VILLAGE AT EAST LAKE	250	$810	$1,100	85%
SOL CALIENTE	358	$585	$799	64%

Apartment Name	Units	Rent Low	Rent High	Occupancy
RAINTREE	313	$699	$875	79%
SUNDANCE	300	$875	$1,295	91%
GARDENS AT CITRUS TOWER	336	$749	$1,340	87%
VISTA AT LOST LAKE	276	$770	$1,568	90%
TOWN CENTER AT CAGAN CROSSINGS	50	$1,100	$1,475	85%
GRAND VIEW	142	$650	$900	93%
PINNACLE PINES	156	$560	$731	100%
OAK RIDGE	63	$679	$849	95%
	53,611	$691	$962	91%

Source: Charles Wayne Consulting.

Reedy Creek Improvement District
Comprehensive Plan

APPENDIX D

RCID FLORA AND FAUNA INVENTORY

RCID FLORA AND FAUNA INVENTORY

Data provided by Azurea, Inc. May 1999. Includes any native or naturally occurring species found at RCID in the past or present. Does not include exotic species. List is not exhaustive and is subject to change as new species are identified.

VASCULAR PLANTS

SCIENTIFIC NAME	COMMON NAME	HABITAT	SOURCE	COMMENTS
Acer rubrum	Red maple		RCID	
Acer saccharum	Florida maple		RCID	Formerlly Acer barbatum
Acrostichum danaeifolium	Giant leather fern		WDI	
Agalinis fasciculata	Gerardia		RCID	
Agalinis filifolia	False foxglove		GT	
Agrostis sp.	Bent grass		RCID	
Aletris lutea	Star grass, colic root		RCID	
Alternanthera philoxeroides	Alligator weed		RCID	
Ambrosia artemisifolia	Ragweed		RCID	
Ampelopsis arborea	Peppervine		RCID	
Amphicarpum muhlenbergianum	Blue maidencane		GT	
Andropogon glomeratus	Bushy broomsedge		GT	
Andropogon virginicus	Broomsedge		RCID	
Apios americana	Groundnut		AKW	
Arisaema triphyllum	Indian turnip		ERC	
Aristida spiciformis	Bottlebrush threeawn		GT	
Aristida beyrichiana	Wire grass		RCID	
Asclepias curtissii	Sand hill milkweed		WDI	
Asclepias feayi	Milkweed		ERC	Fifth gate site
Asclepias lanceolata	Butterfly weed		RCID	
Asclepias pedicellata	Milkweed		AZ	
Asclepias perennis	Swamp milkweed		AZ	Reedy Creek basin adjacent to big island
Asclepias tuberosa	Butterfly weed		RCID	
Asimina parviflora	Pawpaw		RCID	
Asimina pygmaea	Dwarf pawpaw		GT	

SCIENTIFIC NAME	COMMON NAME	HABITAT	SOURCE	COMMENTS
Asimina reticulata	Pawpaw		RCID	
Aster carolinianus	Carolina aster		RCID	
Aster elliotii	Purple aster		AZ	
Aster reticulatus	Aster		RCID	
Aster tortifolia	White-topped aster		AZ	
Axonopus affinis	Common carpetgrass		AKW	
Axonopus furcatus	Big carpetgrass		NSA	78 ac.
Azolla caroliniana	Water fern		RCID	
Baccharis glomerulifolia	Groundsel tree		GT	
Baccharis halimifolia	Sea myrtle		RCID	
Bacopa caroliniana	Lemon bacopa		RCID	
Bacopa monnieri	Water hyssop		RCID	
Bacopa innominata	Water hyssop		NSA	78 ac.
Balduina angustifolia	Yellow buttons		GT	
Bechemia scandens	Rattan vine		ERC	
Befaria racemosa	Tarflower		RCID	
Begonia semperflorens	Wax begonia		ERC	
Bidens alba	Beggar- ticks		RCID	Formerlly Bidens pilosa
Bignonia capreolata	Cross-vine		ERC	
Blechnum serrulatum	Swamp fern		RCID	
Boehmeria cylindrica	False nettle		AKW/ERC	
Bonamia grandiflora	Florida bonamia		WDI	
Brachiaria mutica	Paragrass		NSA	78 ac.
Brasenia schreberi	Water shield, dollar bonnet		RCID	
Broussonetia papyrifera	Paper mulberry		RCID	Check location
Buchnera americana	Bluehearts		RCID	formerly B. floridana
Bulbostylis sp.	Sedge		RCID	
Bumelia tenax	Tough bumelia		AZ	
Cabomba caroliniana	Fanwort		AQ BIO.	
Callicarpa americana	American beauty berry		RCID	
Calopogon barbatus	Grass pink		RCID	

SCIENTIFIC NAME	COMMON NAME	HABITAT	SOURCE	COMMENTS
Canna flaccida	Canna lily, water canna		RCID	
Carex albolutescens	Carex		NSA	78 ac.
Carphephorus corymbosus	Vanilla plant		GT	
Carphephorus paniculatus	Vanilla plant		GT	
Carpinus caroliniana	American hornbeam, blue-beech		RCID	
Carya aquatica	Water hickory		RCID	
Carya floridana	Scrub hickory		RCID	
Carya glabra	Pignut hickory		RCID	
Carya tomentosa	Mockernut hickory		RCID	
Cassia fasciculata	Partridge pea		RCID	
Cenchrus sp.	Sandspur		RCID	
Centella asiatica	Coinwort		AKW	
Cephalanthus occidentalis	Buttonbush		RCID	
Ceratiola ericoides	Rosemary		RCID	
Ceratophyllum demersum	Coontail		RCID	
Ceratopteris thalictroides	Water horn fern		WDI	
Chapmannia floridana	Alicia		RCID	
Chasmanthium laxum	Spike chasmanthium		GT	
Chenopodium ambrosioides	Mexican tea		BRA3	
Chrysopsis subulata	Golden aster		AZ	L-405 canal bank by Leslie's burn site
Cicuta mexicana	Water hemlock		AZ	
Cirsium altissium	Thistle		RCID	
Citrus aurantium	Sour orange		RCID	
Cladium jamaicense	Sawgrass		RCID	
Cladonia subtenius	Reindeer moss		RCID	
Clitoria fragrans	Pigeon-wing (=sandhill) butterfly pea		AZ	Epcot tollplaza sandhill
Cnidoscolus stimulosus	Spurge nettle		RCID	
Commelina erecta	Day-flower		RCID	
Convolvulus sp.	Bindweed		RCID	
Conyza canadensis	Horseweed		ERC	
Cornus foemina	Swamp dogwood		RCID	fromerly Cornus stricta

SCIENTIFIC NAME	COMMON NAME	HABITAT	SOURCE	COMMENTS
Crotalaria mucronata	Rattle box		NSA	78 ac.
Crotalaria spectablis	Big rattle box		AZ	WWD on Clay road and 78 ac.
Ctenitis submarginalis	Comb fern		ERC/WDI	
Cynanchum scoparium	Milkweed		ERC	
Cynodon dactylon	Bermuda grass		NSA	78 ac.
Cyperus brevifolius	Sedge		NSA	78 ac.
Cyperus compressus	Sedge		NSA	78 ac.
Cyperus haspan	Sedge		NSA	78 ac.
Cyperus iria	Sedge		NSA	78 ac.
Cyperus odorata	Sedge		CA	78 ac.
Cyperus papyrus	Papyrus sedge		NSA	78 ac.
Cyperus polystachyos	Sedge		CA	78 ac.
Cyperus retrorsus	Sedge		NSA	78 ac.
Cyperus rotundus	Sedge		NSA	78 ac.
Cyperus surinamensis	Sedge		CA	78 ac.
Cyrilla racemiflora	Titi, leatherwood		RCID	
Dalea pinnata	Summer farewell		AZ	
Decumaria barbara	Cowitch-vine, climbing hydrangea		ERC	
Dichanthelium dichotomum	Crow's foot grass		AKW	
Dichromena colorata	White-top sedge		RCID	
Digiteria ciliaris	Southern crabgrass		CA	78 ac.
Diodia teres	Poor joe		NSA	78 ac.
Diodia virginina	Buttonweed		CA	78 ac.
Dioscorea bulbifera	Air potato		AZ	
Diospyros virginiana	Persimmon		RCID	
Drosera brevifolia	Dwarf sundew		RCID	
Drosera capillaris	Pink sundew		RCID	
Dryopteris ludoviciana	Florida shield fern		RCID	
Echinochloa colonum	Jungle-rice		NSA	78 ac
Echinochloa walteri	Coast cockspur		78 ac	
Eclipta alba	Eclipta		NSA	78 ac.

SCIENTIFIC NAME	COMMON NAME	HABITAT	SOURCE	COMMENTS
Egeria densa	Brazilian elodea		RCID	
Eichornia crassipes	Water hyacinth		RCID	
Eleocharis baldwinii	Hair grass, slender spikerush		RCID	
Eleocharis interstincta	Giant spikerush		78 ac	
Eleocharis vivipara	Spike rush		CA	78 ac.
Elephantopus elatus	Elephant foot		RCID	
Eleusine indica	Goose grass		RCID	
Emilla sonchifolius	Emilia		RCID	
Encyclia tampensis	Butterfly orchid		RCID	
Epidendrum conopseum	Green-fly orchid		AZ	
Equisetum hyemale	Scouring rush		AZ	
Erechtites hieracifolia	Fireweed		ERC	
Ericaulon decanqulare	Hatpin, pipewort		RCID	
Erigeron spp.	Fleabane		RCID	misspelled "Erqueron"
Eriogonum longifolium var. gnaphalifolium	Scrub buckwheat		WDI	
Eryngium aquaticum	Corn Snakeroot		AZ	Conservation area/Powerline Rd. to big island/ at Da
Eryngium yuccifolium	Rattlesnake-master		AZ	NE corner of 78 ac wtln scrub
Eupatorium album	White thoroughwort		GT	
Eupatorium capillifolium	Dogfennel		RCID	
Eupatorium compositifolium	Dogfennel		RCID	
Euphorbia polyphylla	Spurge		GT	
Euthamia minor	Flat-topped goldenrod		GT	
Fimbristylis autimnalis	Sedge		NSA	78 ac.
Fimbristylis dichotoma	Sedge		NSA	78 ac.
Fimbristylis schoenoides	Sedge		NSA	78 ac.
Fraxinus caroliniana	Carolina ash		RCID	
Froelichia floridana	Cottonweed		RCID	
Frullania sp.	Leafy liverwort		RCID	
Fumaria officinalis	Ground smoke		AZ	
Galactia elliottii	Galactia		GT	
Galium tinctorium	Bed straw		ERC	

SCIENTIFIC NAME	COMMON NAME	HABITAT	SOURCE	COMMENTS
Garberia hyterophyla	Garberia		RCID	formerly Garberia fruticosa
Gaylussacia dumosa	Dwarf huckleberry		RCID	
Gaylussacia frondosa	Dangleberry		RCID	
Gaylussacia tomentosa	Dangleberry		AKW	
Gelsemium sempervirens	Carolina jessamine		RCID	
Gnapthalium falcatum	Cudweed		ERC	
Gordonia lasianthus	Loblolly bay		RCID	
Habenaria repens	Habenaria orchid		AZ	78 ac
Habeneria odontopetala	Rein orchid		AZ	78 ac
Hedyotis procumbens	Innocence		AZ	78 ac.
Hedyotis uniflora	Wet hedyotis		NSA	78 ac.
Helianthus spp.	Sunflower		RCID	
Heterotheca subaxillaris	Camphorweed		BRA3	
Hibiscus sp.	Rose mallow		RCID	
Hieracium gronovii	Hawkweed		GT	
Hydrilla verticillata	Hydrilla		RCID	
Hydrochloa caroliniensis	Southern watergrass		RCID	
Hydrocotyle ranunculoides	Pinkdot		AZ	Discovery Island TI-9
Hydrocotyle unbellata	Pennywort		RCID	
Hypericum cistifolium	St. John's wort		GT	
Hypericum crux-andraea	St. Peter's wort		RCID	formerly H. stans
Hypericum fasciculatum	St. John's wort		RCID	
Hypericum perforatum	St. John's wort		RCID	
Hypericum reductum	St. John's wort		GT	
Hypolepis repens	Flakelet fern		WTS2	
Hypoxis leptocarpa	Yellow-star grass		GT	
Hyptis alata	Bush mint, musky mint		RCID	
Hyptis verticulata	Hyptis		AZ	
Ilex cassine	Dahoon holly		RCID	
Ilex coriacea	Large gallberry		GT,AKW	Transects 3+4
Ilex decidua	Possum haw, winterberry		ERC	

SCIENTIFIC NAME	COMMON NAME	HABITAT	SOURCE	COMMENTS
Ilex glabra	Gallberry, inkberry		RCID	
Illicium parviflorum	Yellow star anise		WDI	
Indigofera hirsuta	Hairy indigo		NSA	78 ac wetland
Ipomoea sp.	Morning glory		RCID	
Isoetes flaccida	Florida quilhwort		WDI	
Itea virginica	Virginia willow		RCID	
Juncus effusus	Rush		AKW	
Juncus marginatus	Rush		RCID	
Juncus scirpoides	Rush		RCID	
Juniperus silicicola	Southern red cedar		RCID	
Lachnanthes caroliniana	Blood root, redroot		RCID	
Lachnocaulon anceps	Bog button		RCID	
Lachnocaulon beyrichianum	Bog-buttons		GT	
Lachnocaulon minus	Hat pin		RCID	
Lactuca sp.	Wild lettuce		RCID	
Lantana sp.	Lantana		RCID	
Lasiacis divaricata	Wild bamboo		RCID	
Lechea deckertii	Lechea		GT	
Lechea torreyi	Lechea		GT	
Lemna valdiviana	Common duckweed		RCID	formerly L. minor
Lepidium virginicum	Pepper grass, poor man's pepper		RCID	
Leucobryum sp.	Pin cushion moss		RCID	
Leucothoe racemosa	Fetterbush		AKW	
Liatris pauciflora	Gay feather		AZ	78 ac wtln Scrub
Liatris tenuifolia	Blazing star		GT	
Licania michauxii	Gopher apple		GT	formerly Chrysobalanus ablongifolius
Lilium catesbaei	Pine lily		RCID	
Limnobium spongia	Frog's-bit		RCID	
Limnophila sessiflora	Limnophila		AQ BIO.	
Lineria canadensis	Blue-toad flax		AZ	
Liquidambar styraciflua	Sweet gum		RCID	

SCIENTIFIC NAME	COMMON NAME	HABITAT	SOURCE	COMMENTS
Lobelia glandulosa	Glades lobelia		AZ	
Ludwigia alata	Ludwigia		AKW	
Ludwigia laciniata	Cut-leaved evening primrose		AZ	SSA, behind AZ office
Ludwigia octavalis	Primrose willow		RCID	
Ludwigia palustris	Ludwigia		CA	78 ac.
Ludwigia peruviana	Primrose willow		RCID	
Ludwigia repens	Red luwigia, water primrose		RCID	
Lupinus diffusus	Sky-blue lupine		AZ	
Lupinus westanus var. aridorum	Scrub lupine		AZ	
Lycopus rubellus	Water hoarhound		AKW	
Lygodesmia aphylla	Rose bush		RCID	
Lygodium japonica	Japenese climbing fern		AZ	
Lyonia ferruginea	Rusty lyonia		RCID	
Lyonia fruticosa	Staggerbush		RCID	
Lyonia lucida	Fetterbush		RCID	
Lythrum alata	Loosestrife		AZ	
Magnolia grandiflora	Southern magnolia		RCID	
Magnolia virginiana	Sweet bay		RCID	
Matela floridana	Florida milkweed		WDI	
Melaleuca quinquenervia	Punk tree		AQ BIO.	
Melilotus alba	White sweet clover		AZ	
Melothria pendula	Creeping cucumber		AZ/ERC	
Micranthemum umbrosum	Micranthemum		GT	
Mikania cordifolia	Climbing hempweed		ERC	
Mikania scadens	Climbing hempweed		RCID	
Mitchella repens	Partridge berry		GT	
Momordica charantia	Wild balsam apple		ERC	
Monotropa uniflora	Indian pipe		AZ	SW Scrub
Morus rubra	Red mulberry		RCID	
Myrica cerifera	Wax myrtle		RCID	
Najas guadalupensis	Southern naiad		RCID	

SCIENTIFIC NAME	COMMON NAME	HABITAT	SOURCE	COMMENTS
Nelumbo lutea	American lotus		RCID	
Nephrolepsis exaltata	Boston fern		RCID	
Nolina brittoniana	Britton's bear grass		WDI	
Nuphar luteum	Spatterdock		RCID	misspelled "Nyphar"
Nymphaea mexicana	Yellow waterlily		AQ BIO.	
Nymphaea odorata	Fragrant waterlily		RCID	
Nymphoides aquatica	Floating heart, banana-lily		RCID	
Nyssa sylvatica var. biflora	Black gum		RCID	
Oplismenus setarius	Woodsgrass		GT	
Opuntia humifusa	Prickly-pear cactus		GT	
Orontium aquaticum	Neverwet		ERC	
Osmanthus americana	Wild olive		RCID	
Osmunda cinnamomea	Cinnamon fern		RCID	
Osmunda regalis	Royal fern		RCID	
Oxalis corniculata	Lady's sorrel		CA	78 ac.
Oxalis stricta	Yellow sorrel, sour grass		RCID	
Palafoxia feayi	Palafoxia		GT	AK site
Palafoxia integrifolia	Palafoxia		GT	AK site
Panicum dichotomiflorum	Fall panicum		NSA	78 ac.
Panicum hemitomon	Maidencane		RCID	
Panicum purpurascens	Para grass		RCID	
Panicum repens	Torpedo grass		RCID	
Panicum verrucosum	Warty panicum		AZ	
Paronychia chartacea	Paper-like nailwort		WDI	
Parthenocissus quinquefolia	Virginia creeper		RCID	
Paspalum acuminatum	Paspalum		NSA	78 ac.
Paspalum distichum	Seashore paspalum		NSA	78 ac.
Paspalum notatum	Bahia grass		RCID	
Paspalum repens	Water paspalum		AQ BIO.	
Paspalum urvillei	Vaseygrass		CA/AZ	78 ac.
Passiflora incarnata	Passion flower		RCID	

SCIENTIFIC NAME	COMMON NAME	HABITAT	SOURCE	COMMENTS
Peltandra virginica	Green arum		AZ	
Penstemon multiflorus	Beardtounge		AZ	
Persea borbonia	Red bay		RCID	
Persea humilis	Silkbay	scrub	RCID	
Persea palustris	Swampbay		RCID	
Phlebodium arueum	Golden foot fern		RCID	
Physalis sp.	Ground cherry		RCID	
Physostegia denticulata	Obedient plant		RCID	
Physostegia leptophylla	Slender-leaved false dragonhead	cypress swamp, ha	WDI	WDI list / USFWS -C2
Phytolacca americana	Pokeberry		RCID	
Piloblephis rigida	Penny royal		GT	
Pinguicula lutea	Yellow butterwort		WDI	
Pinus clausa	Sand pine		RCID	
Pinus elliottii	Slash pine		RCID	
Pinus palustris	Longleaf pine		RCID	
Pinus serotina	Pond pine		RCID	
Pistia stratiotes	Water lettuce		RCID	
Pityopsis graminifolia	Pityopsis		GT	
Platanthera ciliaris	Yellow fringed orchid		WDI	
Pluchea foetida	Marsh fleabane		RCID	
Pluchea odorata	Saltmarsh fleabane		AZ	
Pogonia ophioglossoides	Rose pogonia		AZ	
Poinsettia cyathophora	Painted leaf poinsettia		RCID	
Polygala lutea	Bog bachelor's button		RCID	
Polygala nana	Bachelor's button		RCID	
Polygala rugelii	Bachelor's button		RCID	
Polygala setacea	Polygala		GT	
Polygonella fimbriata	Sandhill wireweed		GT	
Polygonella myriophylla	Small's jointweed		AZ	
Polygonum hirsutum	Smartweed		CA	78ac.
Polygonum hydropiperoides	Mild water-pepper		RCID	

SCIENTIFIC NAME	COMMON NAME	HABITAT	SOURCE	COMMENTS
Polygonum punctatum	Dotted smartweed		NSA	78 ac.
Polypodium plumula	Plume fern		RCID	
Polypodium polypodioides	Ressurection fern		RCID	
Polypremum procumbens	Rustweed		AZ	78 ac. wtln scrub
Polystichum acrostichoides	Christmas fern		WDI	
Pontederia cordata	Pickerelweed		RCID	Formerlly Pontederia lancelata
Ponthieva racemosa	Shadow witch		WDI	
Porella sp.	Leafy liverwort		RCID	
Portulaca pilosa	Pink purslane		RCID	
Potamogeton diversifolius	Water thread		AQ BIO	
Potamogeton illinoensis	Illinois pondweed		AQ BIO	
Potamogeton pectinatus	Sago pondweed		RCID	
Prunus angustifola	Chickasaw plum		RCID	
Prunus caroliniana	Carolina laurel cherry		AZ	
Prunus geniculata	Scrub plum		WDI	
Psidium guajava	Wild guava		RCID	
Psilotum nudum	Wisk fern		AZ	
Psychotria sulzneri	Wild coffee		ERC	RCID has Psychotria sp.
Pteridium aquilinum	Bracken		RCID	
Pteris tripartita	Giant brake fern		WDI	
Pterocaulon pycnostachyum	Rabbit tobacco, black root		RCID	
Pterocaulon virgatum	Blackroot		GT	
Pteroglossapsis ecristata	Wild coco		WDI	
Ptilimnium capillaceum	Mock bishopweed		AZ	
Pyrrhopappus carolinianus	False dandelion		RCID	
Pyrus arbutifolia	Red chokeberry		AKW	
Quercus chapmanii	Chapman's oak		RCID	
Quercus geminata	Sand live oak		RCIT	formerly Q. virginiana var. maritima
Quercus incana	Bluejack oak		RCID	
Quercus laevis	Turkey oak		RCID	
Quercus laurifolia	Laurel oak		RCID	

SCIENTIFIC NAME	COMMON NAME	HABITAT	SOURCE	COMMENTS
Quercus minima	Dwarf live oak		RCID	
Quercus myrtifolia	Myrtle oak		RCID	
Quercus nigra	Water oak		RCID	
Quercus pumila	Running oak		RCID	
Quercus virginiana	Live oak		RCID	
Rhapidophyllum hystrix	Needle palm		RCID	
Rhexia cubensis	Meadow beauty		RCID	
Rhexia mariana var. purpurea	Meadow beauty		RCID	
Rhexia nuttallii	Rhexia		GT	
Rhexia petiolata	Rhexia		GT	
Rhododenron viscosum	Swamp azalea		RCID	
Rhus copallina	Shining sumac		RCID	
Rhynchelytrum repens	Natal grass		RCID	
Rhynchospora fascicularis	Beak rush		CA	78 ac.
Rhynchospora inundata	Beak rush		AKW	
Rhynchospora microcephala	Beak rush		CA	79 ac.
Rhynchospora miliacea	Beak rush		AKW	
Richardia brasilienses	Richardia		BRA3	
Richardia scabra	Florida purslane		RCID	
Ricinus communis	Castorbean		RCID	
Rivinia humulis	Rouge plant		AZ	
Rubus argutus	Highbush blackberry		GT	
Rudbeckia sp.	Black-eyed Susan		RCID	
Ruellia caroliniensis	Twin flower		RCID	
Rumex crispus	Sour dock		RCID	
Rumex hastulus	Wild sorrel		RCID	
Sabal etonia	Scrub palmetto		WDI	
Sabal minor	Dwarf palmetto		GT	
Sabal palmetto	Cabbage palm		RCID	
Sabatia brevifolia	Sabatia		GT	
Sabatia grandiflora	Marsh pink		RCID	

SCIENTIFIC NAME	COMMON NAME	HABITAT	SOURCE	COMMENTS
Sagittaria graminea	Arrowhead		RCID	
Sagittaria kurziana	Strap-leaf sagitaria		AQ BIO	
Sagittaria lancifolia	Arrowhead		RCID	
Sagittaria latifolia	Duck potato		AZ	78 ac. wetland, I-4&535
Sagittaria sublata	Dwarf arrowhead		RCID	
Salix caroliniana	Coastal plain willow		RCID	
Salvinia minima	Water spangles		RCID	formerly S. rotundifolia
Sambucus canadensis	Elderberry		RCID	
Sarrancenia minor	Pitcher plant		RCID	
Satureia coccinea	Scarlet balm, red basil		RCID	
Saururus cernuus	Lizard's-tail		RCID	
Schinus terebinthifolius	Brazilian pepper		RCID	
Schizachyrium scoparium	Little bluestem		RCID	Formerly Andropogon stolonifer
Schrankia microphylla	Sensitive briar		RCID	
Scirpus cubensis	Burhead bulrush		AQ BIO	
Scirpus cyperinus	Woolgrass		CA	78 ac.
Scleria reticularis	Scleria		GT	
Scleria triglomerata	Nut rush		RCID	
Scoparia dulcis	Sweet broom		CA	78 ac.
Scutellaria floidana	Scullcaps		RCID	
Selaginella floridana	Spike moss		RCID	
Senecio glabellus	Butterweed		AZ	
Serenoa repens	Saw palmetto		RCID	
Sesbania emereus	Bequilla		78 ac.	
Sesbania vesicaria	Bladderpod		RCID	formerly Glottidium vesicarium
Setaria geniculata	Knotroot foxtail		CA	78 ac.
Setaria magna	Giant foxtail		AZ	
Sisyrinchium angustifolium	Blue-eyed grass		RCID	
Smilax auriculata	Smilax		RCID	
Smilax bona-nox	Little ears, catbriar		RCID	
Smilax laurifolia	Bamboo briar		RCID	

SCIENTIFIC NAME	COMMON NAME	HABITAT	SOURCE	COMMENTS
Smilax smallii	Lanceleaf greenbriar		GT	
Smilax walteri	Coral greenbriar		ERC	
Solanum nigrescens	Black nightshade		ERC	
Solanum seaforthianum	Climbing nightshade		AZ	
Solidago sempervirens	Seaside goldenrod		GT	
Sonchus oleraceus	Sow thistle		RCID	
Sorbus arbutifolia var. arbutifolia	Red chokeberry		RCID	
Sorghastrum secundum	Lopsided indiangrass		GT	
Spartina sp.	Cordgrass		RCID	
Sphagnum sp.	Spagnum		RCID	
Spiranthes sp.	Ladies tresses		RCID	
Spirodela polyrhiza	Duckweed		AZ	
Spirodela puncata	Duckweed		AZ	
Sporobulus poiretii	Smut grass		RCID	
Stillingia slyvatica	Queen's root		RCID	
Stipa spp.	Stipa		GT	
Stipulicida setacea	Thread plant		RCID	
Taraxacum officinale	Common dandelion		RCID	
Taxodium ascendans	Pond cypress		RCID	
Taxodium distichum	Bald cypress		RCID	
Thelypteris dentata	Tapering tri-vein fern		WDI	
Thelypteris hispidula	Hairy maiden fern		WDI	
Thelypteris interrupta	Fertile tapering tri-vein fern		WDI	
Thelypteris kunthii	Aspidium fern (unnamed)		WDI	
Thelypteris palustris	Marsh fern		WDI	
Thelypteris serrata	acrostichoid fern		AZ	formerly Meniscium serratum, collected along Reed
Tilia caroliniana	Basswood		RCID	formerly T. americana
Tillandsia fasciculata	Stiff-leaved wild pine		RCID	
Tillandsia recurvata	Ball moss, bunch moss		RCID	
Tillandsia setacea	Needle-leaved wild pine		RCID	
Tillandsia usneoides	Spanish moss		RCID	

SCIENTIFIC NAME	COMMON NAME	HABITAT	SOURCE	COMMENTS
Tillandsia utriculata	Giant wild pine		RCID	
Toxicodendron radicans	Poison ivy		RCID	formerly Rhus radicans
Toxicodendron vernix	Poison sumac		RCID	formerly Rhus vernix
Tradescantia rosea	Spiderwort		RCID	
Tragia urens	Tragia		RCID	
Trichostema dichotomum	Blue culs		RCID	
Tridax procumbens	Daisy		AZ	SSA, lawn at AZ office at WDW
Trifolium repens	White clover		RCID	
Triodanus perfolia	Venus' looking-glass		AZ	
Typha angustifolia	Narrow-leaved cattail		RCID	
Typha domingensis	Southern cattail		AZ	
Typha latifolia	Common cattail		RCID	
Ulmus americana var. floridana	Florida elm		RCID	
Urena lobata	Caesar weed		RCID	
Utricularia floridana	Florida bladderwort		AQ BIO	
Utricularia inflata	Bladderwort		RCID	
Utricularia purpurea	Purple bladderwort		AQ BIO	
Utricularia subulata	Bladderwort		AZ	
Vaccinium arboreum	Sparkleberry		GT	
Vaccinium corymbosum	Highbush blueberry		AZ/ERC	
Vaccinium darrowii	Blueberry		GT	
Vaccinium myrsinites	Blueberry		RCID	
Vaccinium stamineum	Squaw huckleberry		RCID	
Valeriana scandens	Valerian		ERC	
Vallisneria americana	Tapegrass, eelgrass		RCID	
Verbena brasiliensis	Verbena	Disturbed wet area	AZ	
Vernonia gigantea	Ironweed		AZ	Conservation area/Powerline Rd to big island/ at Da
Viburnum nudum	Possum haw		AKW	
Viburnum obovatum	Blackhaw		RCID	
Viola lanceolata	Violet		RCID	
Viola primulifolia	Primrose-leaved violet		RCID	

SCIENTIFIC NAME	COMMON NAME	HABITAT	SOURCE	COMMENTS
Vitis munsoniana	Southern fox grape		AKW	
Vitis rotundifolia	Muscadine grape		RCID	
Vittaria lineata	Shoestring fern		RCID	
Wolffia brasiliensis	Water-meal		AZ	
Wolffia columbiana	Water-meal		AZ	
Wolffiella gladiata	Bog-mat		AZ	
Wolffiella oblonga	Mud midget		AZ	
Woodwardia areolata	Netted chain fern		RCID	
Woodwardia virginica	Virginia chain fern		RCID	
Xyris elliottii	Yellow-eyed grass		RCID	
Xyris fimbriata	Yellow-eyed grass		GT	
Youngia japonica	Hawk's-beard		AZ	various disturbed sites
Yucca filamentosa	Bear grass		RCID	
Zephyranthes sp.	Rain lily		RCID	
Zigadensus densus	Osceola's plume, crow-poison		RCID	also listed as Amianthium muscaetoxicum
ALGAE				
Anabaena sp.			RCID	
Anacystis			RCID	
Carteria			RCID	
Ceratium			RCID	
Chara	Musk-grass		RCID	
Chlamydomonas			RCID	
Chodatella			RCID	
Closterium			RCID	
Coelastrum			RCID	
Cosmarium			RCID	
Cymbella			RCID	
Desmidium			RCID	
Dinobryon			RCID	
Eudorina			RCID	
Euglena			RCID	

SCIENTIFIC NAME	COMMON NAME	HABITAT	SOURCE	COMMENTS
Fragilaria			RCID	
Gloeocystis			RCID	
Golenkinia			RCID	
Lyngbya			RCID	
Melosira			RCID	
Nitella	Stonewort		RCID	
Oedogonium			RCID	
Oscillatoria			RCID	
Pandorina			RCID	
Pediastrum			RCID	
Pinnularia			RCID	
Pleodorina			RCID	
Polycystis			RCID	
Scenedesmus			RCID	
Sphaerocystis			RCID	
Spirogyra	Water-silk		RCID	
Staurastrum			RCID	
Synedra			RCID	
Tabellaria			RCID	
Volvox			RCID	
Total Flora species = 509				
BIRDS				
Accipiter cooperii	Cooper's hawk		RCID	
Accipter striatus	Sharp-skinned hawk		RCID	
Actitis macularia	Spotted sandpiper		RCID	
Agelaius phoeniceus	Redwinged blackbird		RCID	
Aimophila aestvalis	Bachman's sparrow		RCID	
Aix sponsa	Wood duck		RCID	
Anas crecca	Green-winged teal		RCID	
Anas discors	Blue-winged teal		RCID	

SCIENTIFIC NAME	COMMON NAME	HABITAT	SOURCE	COMMENTS
Anas fulvigula	Mottled duck		RCID	
Anas platyrhyncos	Mallard		RCID	
Anhinga anhinga	Anhinga		RCID	
Anthus spinoletta	Water pipit		RCID	
Aphelocoma coeurulescens	Scrub jay		RCID	extripated
Aramus guarauna	Limpkin		RCID	
Archilochus colubris	Ruby-throated hummingbird		RCID	
Ardea herodias	Great white heron		RCID	
Ardea herodias	Great blue heron		RCID	
Aythya affinis	Lesser scaup		RCID	
Aythya collaris	Ring-necked duck		RCID	
Aythya valisineria	Canvas back		RCID	
Bombycilla cedrorum	Cedar waxwing		RCID	
Botaurus lentiginosus	American bittern		RCID	
Bubo virginianus	Great horned owl		RCID	
Bubulcus ibis	Cattle egret		RCID	
Buteo brachyurus	Short-tailed hawk		78 ac.	
Buteo jamaicensis	Red-tailed hawk		RCID	
Buteo lineatus	Red-shouldered hawk		RCID	
Buteo swainsoni	Swainson's hawk		RCID	
Butorides striatus	Green heron		RCID	
Caldris mauri	Western sandpiper		RCID	
Calidris minutilla	Least sandpiper		RCID	
Calidris pusilla	Simipalmated sandpiper		RCID	
Caprimulgus carolinensis	Chuck-will's-widow		RCID	
Cardinalis cardinalis	Cardinal		RCID	
Carduelis tristis	American goldfinch		RCID	
Casmerodius albus	Great egret		WDI	formerly Common egret
Cathartes aura	Turkey vulture		RCID	
Catharus fuscescens	Veery		RCID	
Catharus guttatus	Hermit thrush		RCID	

SCIENTIFIC NAME	COMMON NAME	HABITAT	SOURCE	COMMENTS
Catharus minimus	Gray-cheeked thrush		RCID	
Ceryle alcyon	Belted kingfisher		RCID	
Chaetura pelagica	Chimney swift		RCID	
Charadrius vociferus	Killdeer		RCID	
Chordeiles minor	Common nighthawk		RCID	
Circus cyaneus	Northern harrier		RCID	
Cistothorus palustris	Marsh wren		78 ac.	
Cistothorus platensis	Sedge wren		RCID	formerly Short-billed Marsh Wren
Coccyzus americanus	Yellow-billed cuckoo		RCID	
Colaptes auratus	Northern flicker		RCID	formerly Yellow-shafted Flicker
Colinus virginianus	Bobwhite		RCID	
Columbina passerina	Ground dove		RCID	
Contopus virens	Eastern wood pewee		RCID	
Coragyps atratus	Black vulture		RCID	
Corvus brachyrhynchos	American crow		RCID	
Corvus ossifragus	Fish crow		RCID	
Cyanocitta cristata	Blue jay		RCID	
Dendroica castanea	Bay-breasted warbler		RCID	
Dendroica coronata	Yellow-rumped warbler		AKW	
Dendroica discolor	Prairie warbler		RCID	
Dendroica dominica	Yellow-throated warbler		RCID	
Dendroica magonila	Magnolia warbler		RCID	
Dendroica palmarum	Palm warbler		RCID	
Dendroica petechia	Yellow warbler		RCID	
Dendroica pinus	Pine warbler		RCID	
Dendronica caerulescens	Black-throated blue warbler		RCID	
Dendronica striata	Blackpoll warbler		RCID	
Dolichonyx oryzivorus	Bobolink		RCID	
Dryocopus pileatus	Pileated woodpecker		RCID	
Dumetella carolinensis	Gray catbird		RCID	
Egretta caerulea	Little blue heron		RCID	

SCIENTIFIC NAME	COMMON NAME	HABITAT	SOURCE	COMMENTS
Egretta thula	Snowy egret		RCID	
Egretta tricolor	Tricolor heron		RCID	
Elanoides forficatus	Swallow-tailed kite		RCID	
Eudocimus albus	White ibis		RCID	
Euphagus carolinus	Rusty blackbird		RCID	
Falco sparverius	American kestrel		RCID	formerly Sparrow Hawk
Fulica americana	American coot		RCID	
Gallinago gallinago	Common snipe		RCID	
Gallinula chloropus	Common moorhen		RCID	formerly Common gallinule
Gavia immer	Common loon		RCID	
Geothlypos trichas	Common yellowthroat		RCID	formerly Yellowthroat
Grus canadenis pratensis	Florida sandhill crane		RCID	
Guiraca caerulea	Blue grosbeak		RCID	
Haliaeetus leucocephalus	Bald eagle		RCID	
Helmitheros vermivorus	Worm-eating warbler		RCID	
Hylocichla mustelina	Wood thrush		RCID	
Icterus galbula	Baltimore oriole		RCID	
Ixobrychus exilis	Least bittern		WDI	
Lanius ludovicanus	Loggerhead shrike		RCID	
Larus argentatus	Herring gull		RCID	
Larus atricilla	Laughing gull		RCID	
Larus delawarensis	Ring-billed gull		RCID	
Larus philadelphia	Bonaparte's gull		RCID	
Lophodytes cucullatus	Hooded merganser		RCID	
Melanerpes carolinus	Red-bellied woodpecker		RCID	
Melanerpes erythrocephalus	Red-headed woodpecker		RCID	
Meleagris gallopavo	Turkey		RCID	
Melospiza georgiana	Swamp sparrow		RCID	
Melospiza melodia	Song sparrow		RCID	
Mergus serrator	Red-breasted merganser		RCID	
Mimus polyglottos	Mockingbird		RCID	

SCIENTIFIC NAME	COMMON NAME	HABITAT	SOURCE	COMMENTS
Mniotilta varia	Black-and-white warbler		RCID	
Molothrus ater	Brown-headed cowbird		RCID	
Mycteria americana	Wood stork		78 ac.	perhaps misprinted as wood Ibis in RCID
Myiarchus crinitus	Great crested flycatcher		RCID	
Numenius phaeopus	Whimbrel		RCID	
Nycticorax nycticorax	Black-crowned night heron		RCID	
Nycticorax violaceus	Yellow-crowned night heron		RCID	
Otus asio	Screech owl		RCID	
Oxyura jamaicensis	Ruddy duck		RCID	
Pandion haliaetus	Osprey		RCID	
Parula americana	Northern parula		RCID	
Parus bicolor	Tufted titmouse		RCID	
Parus carolinensis	Carolina chickadee		RCID	
Passer domesticus	House sparrow		RCID	
Passerculcs sandwichensis	Savannah sparrow		RCID	
Passerina cyanea	Indigo bunting		RCID	
Phalacrocotax auritus	Double-creasted cormorant		RCID	
Pheucticus ludovicianus	Rose-breasted grosbeak		RCID	
Picoides borealis	Red-cockaded woodpecker		RCID	extripated
Picoides pubescens	Downy woodpecker		RCID	
Picoides villosus	Hairy woodpecker		RCID	
Pipilo erythrophthalmus	Rufous-sided towhee		RCID	
Piranga olivacea	Scarlet tanager		RCID	
Piranga rubra	Summer tanager		RCID	
Plegadis falcinellus	Glossy ibis		RCID	
Podiceps auritus	Horned grebe		RCID	
Podilymbus podiceps	Pied-billed grebe		RCID	
Polioptila caerulea	Blue-gray gnatcatcher		RCID	
Porphyrula martinica	Purple gallinule		RCID	
Porzana carolina	Sora		RCID	
Progne subis	Purple martin		RCID	

SCIENTIFIC NAME	COMMON NAME	HABITAT	SOURCE	COMMENTS
Protonotaria citrea	Prothonotary warbler		RCID	
Quiscalus major	Boat-tailed grackle		RCID	
Quiscalus quiscalus	Common grackle		RCID	
Regulus calendula	Ruby-crowned kinglet		RCID	
Riparia riparia	Barn swallow		RCID	
Sayornis phoebe	Eastern phoebe		RCID	
Seiurus aurocapillus	Ovenbird		RCID	
Setophaga ruticilla	Redstart		RCID	
Sialia sialis	Eastern bluebird		RCID	
Sitta pusilla	Brown-headed nuthatch		RCID	
Sphyrapicus varius	Yellow-bellied sapsucker		RCID	
Spizella passerina	Chipping sparrow		RCID	
Spizella pusilla	Field sparrow		RCID	
Stelgidopteryx serripennis	Rough-winged swallow		RCID	
Sterna forsteri	Forster's tern		RCID	
Strix varia	Barred owl		RCID	
Sturnella magna	Eastern meadowlark		RCID	
Sturnus vulgaris	Starling		RCID	
Thryothorus ludovicianus	Carolina wren		RCID	
Toxostoma rufum	Brown thrasher		RCID	
Trachycineta bicolor	Tree swallow		RCID	
Tringa flavipes	Lesser yellowlegs		RCID	
Tringa melanoleuca	Greater yellowlegs		RCID	
Tringa solitaria	Solitary sandpiper		RCID	
Troglodytes aedon	House wren		RCID	
Turdus migratorius	Robin		RCID	
Tyrannus tyrannus	Eastern kingbird		RCID	
Vermivora chrysoptera	Golden-winged warbler		RCID	
Vermivora pinus	Blue-winged warbler		RCID	
Vireo flavifrons	Yellow-throated vireo		AKW	
Vireo griseus	White-eyed vireo		RCID	

SCIENTIFIC NAME	COMMON NAME	HABITAT	SOURCE	COMMENTS
Vireo olivaceus	Red-eyed vireo		RCID	
Vireo solitarius	Solitary vireo		RCID	
Zenaida macroura	Mourning dove		RCID	
Zonotrichia albicollis	White-throated sparrow		RCID	
Total birds = 167				
MAMMALS				
Blarina brevicauda	Shorttail shrew		AKW	
Cryptotis parva	Least shrew			
Dasypus novemcinctus	Armadillo		RCID	
Didelphis marsupialis	Opossum		RCID	
Felis concolor coryi	Florida panther		RCID2	
Glaucomoys volans	Southern flying squirrel		RCID	
Lutra canadensis	River otter		RCID	
Lynx rufus	Bobcat		RCID	
Mephitis mephitis	Striped skunk		RCID	
Mus musculus	House mouse		RCID	
Neofiber alleni	Florida water rat		78 ac	
Neotoma floridana	Eastern woodrat		RCID	
Nycticeius humeralis	Evening bat			
Odocoileus virginanus	White-tail deer		RCID	
Oryzomys palustris	Rice rat		RCID	
Peromyscus gossypinus	Cotton mouse		RCID	
Peromyscus nuttalli	Golden mouse		RCID	
Peromyscus polionotus	Oldfield mouse		BRA2	AK scub, SW scrub, Sports complex
Podomys floridanus	Florida mouse		BRA2	AK scub, SW scrub, Sports complex
Procyon lotor	Raccoon		78 ac.	
Rattus norvegicus	Norway rat		RCID	
Rattus rattus	Black rat		RCID	
Reithrodontomys humulis	Eastern harvest mouse		RCID	
Scalopus aquaticus	Eastern mole		RCID	
Sciurus carolinensis	Eastern gray squirrel		RCID	

SCIENTIFIC NAME	COMMON NAME	HABITAT	SOURCE	COMMENTS
Sciurus niger shermani	Sherman's fox squirrel		RCID	
Sigmodon hispidis	Cotton rat		AKW	
Sylvilagus floridanus	Eastern cottontail		RCID	
Sylvilagus palustris	Marsh rabbit		RCID	
Tadarida brasiliensis	Mexican free-tailed bat		AZ	
Urocyon cinereoargenteus	Gray fox		RCID	
Ursus americana floridanus	Florida black bear		WDI	
Total Mammals = 32				
REPTILES & AMPHIBIANS				
Acris gryllus dorsalis	Florida cricket frog		78 ac	
Agkistrodon piscivorus conanti	Florida cottonmouth		RCID/AZ	AKW,78 ac.
Alligator mississippensis	American alligator		RCID	
Ampiuma means	Two-toed amphiuma		RCID	
Anolis carolinensis	Green anole		RCID	
Anolis sagrei	Brown anole		AKW	
Apalone ferox	Florida softshell turtle		RCID	
Bufo quericicus	Oak toad		RCID/78 ac.	
Bufo terrestris	Southern toad		AKW	
Chelydra serpentina osceola	Florida snapping turtle		RCID	
Cnemidophorus sexlineatus sexlineatus	Six-lined race runner		RCID	
Coluber constrictor priapus	Southern black racer		RCID	
Crotalus adamanteus	Eastern diamondback rattlesnake		RCID/AZ	Scrub adjecent to 78 ac. wtln.
Drymarchon corais couperi	Eastern indigo snake		RCID	
Elaohe guttata guttata	Corn snake		RCID/AKW	
Eleutherodacrylus planirostris planirostris	Greenhouse frog		AKW	
Eumeces egregius onocrepis	Peninsula mole skink		BDA	
Eumeces inexpectatus	Southeastern five-lined skink		RCID	
Gastrophyrne carolinensis carolinensis	Eastern narrow-mouthed toad		RCID	
Gopherus polyphemus	Gopher tortoise		RCID	
Heterodon simus	Southern hognose snake		RCID	
Hyla cinerea	Green tree frog		RCID	

SCIENTIFIC NAME	COMMON NAME	HABITAT	SOURCE	COMMENTS
Hyla femoralis	Pinewoods treefrog		78 ac.	
Hyla gratiosa	Barking treefrog		AKW	shallow pond @ AK
Hyla squirella	Squirrel treefrog		RCID	
Kinosternon baurii	Striped mud turtle		AZ	
Lampropeltis triangulum elapsoides	Scarlet king snake		RCID	
Limnaoedus ocularis	Little grass frog		AKW/78 ac.	
Masticophis flagellum flagellum	Eastern coachwhip		RCID/GT	
Micrurus fulvius fulvius	Eastern coral snake		RCID	
Neoseps reynoldsi	Florida sand skink		BRA	AK, Whittenhorse Creek
Nerodia fasciata fasciata	Banded watersnake		AKW/78 ac.	
Nerodia fasciata pictiventris	Florida water snake		78 ac	
Nerodia taxispilota	Brown water snake		RCID	
Opheodrys aestivus	Rough green snake		RCID	
Ophisaurus ventralis	Eastern glass lizard		RCID	
Pituophis melanoleucus mugitus	Florida pine snake		AZ	
Plethodon glutinosus gultinosus	Slimy salamander		AKW	
Pseudacris nigrita verrucosa	Florida chorus frog		AZ	Cons. Area, So. end along canal
Pseudemys floridana peninsularis	Peninsular cooter		78 ac	
Pseudemys nelsoni	Florida red-bellied turtle		RCID	
Rana capito aesopus	Florida gopher frog		WDI	Animal Kingdom
Rana catesbeiana	Bull frog		RCID	
Rana grylio	Pig frog		78 ac.	
Rana utricularia	Southern leopard frog		RCID	
Regina alleni	Striped crayfish snake		BRA2	AK west of Perc ponds
Rhineura floridana	Florida worm lizard		RCID	
Scaphiopus holbrooki	Eastern spadefoot toad		AZ	Animal Kingdom
Sceloporus undulatus undulatus	Southern fence lizard		RCID	
Sceloporus woodi	Florida scrub lizard		RCID/AZ	SW scrub, confirmed by Dick Franz
Scincellis laterale	Ground skink		AKW	
Seminatrix pygaea cyclas	South florida swamp snake		AZ	
Sistrurus miliarius barbouri	Dusky pigmy rattlesnake		RCID	

SCIENTIFIC NAME	COMMON NAME	HABITAT	SOURCE	COMMENTS
Stilosoma extenuatum	Short tailed snake			
Tantilla relicta	Crowned snake		BRA2	AK and I-4 / 535 intechange
Thamnophis sirtalis sirtalis	Eastern garter snake		AZ	C4 wetland
Thamnophis sauritus sackeni	Penninsula ribbon snake		AKW	
Total Reptiles and Amphibians = 55				
FISH				
Amia calva	Mudfish		AQ BIO	
Aphredoderus sayanus	Pirate perch		AQ BIO	
Clarius batrachus	Walking catfish		AQ BIO	
Enneacanthus gloriosus	Blue spotted sunfish		AQ BIO	
Erimyson sucetta	Lake chubsucker		AQ BIO	
Erimyzon oblongus	Creek chubsucker		AQ BIO	
Esox americanus	Redfin pickerel		AQ BIO	
Esox americanus vermiculatus	Grass pickerel		AQ BIO	
Etheostoma edwini	Brown darter		AQ BIO	
Etheostoma fusiforme	Swamp darter		AZ	78 ac.
Fundulus chrusotus	Golden topminnow		AQ BIO	
Fundulus seminolis	Seminole killifish		AQ BIO	
Gambusia affinis	Mosquitofish, gambusia		AQ BIO	
Heterandria formosa	Least killifish		AQ BIO	throughout property
Ictalurus nebulosus	Brown bullhead		AQ BIO	
Jordanella floridae	Florida flagfish		AQ BIO	
Labidesthes sicculus	Brook silverside		AQ BIO	
Lepisosteus platyrhincus	Florida gar		AQ BIO	
Lepomis gulosus	Warmouth		AQ BIO	
Lepomis macrochirus	Bluegill		AQ BIO	
Lepomis microlophus	Red-ear sunfish		AQ BIO	
Lucania goodei	Bluefin killifish		AQ BIO	C109
Micropterus salmoides	Largemouth bass		AQ BIO	Throughout property
Notemlgonus crysoleucas	Golden shiner		AQ BIO	78 ac.
Notropis maculatus	Taillight shiner		AQ BIO	78 ac.

SCIENTIFIC NAME	COMMON NAME	HABITAT	SOURCE	COMMENTS
Poecilia latipinna	Sailfin molly		AQ BIO	Pond B
Pomoxis nigromaculatus	Black crapie		AQ BIO	
Preochromis aureus	Blue tilapia		AQ BIO	L403, 7-seas, Pond B
Total Fish = 28				
Total Fauna Species = 282				

Sources

78 ac	78 ac Created Wetland Study
AKW	Animal Kingdom Wetland Study
AZ	Azurea collection or observations
AQ BIO	RCID's Aquatic Biology Dept. List of Aquatic sp.
BRA	Biological Research Associates
BRA2	BRA "Application for permit to relocat state listed wildlife" 24 JUNE 1994
BRA3	WDW western development infrastructure project gopher tortoise relocation permit application
C4	C4 Wetland Study
CA	Cannin Associates
ERC	Ecosystem Research Corp./ P.Wallace
GT	GT / Vegetation Study
NSA	Natural Systems Analysis
RCID	RCID Herbarium or Comprehensive list
RCID2	Memo from RCID detailing panther sitings
WDI	WDI List of T & E Species

A number of the species identified in this Apendix are considered "Special Status" species and are protedted under State or Federal law. Consult the text of the Conservation Element for further detail