

demand, 1990 to 2009, could be explained by the fact that the 1990 Plan's per capita demand was based on limited data, as stated in the plan.

For the purposes of this Facilities Plan, data submitted to the District in support of its most recent CUP application was used for compiling Table V-2, that compares estimated demand for all sources for the Plan's planning period, 2010-2020, compared to permitted aquifer allocations (CUP).

From Table V-3, below, it is apparent that demand will not exceed allocation in any year throughout the planning period more than 5 per cent. In addition, the projected demand does not take into account stepped-up water conservation efforts by the Town as it implements the new Objective 4.3 and Policies 4.3.1 and 4.3.11, which should reduce demand below levels stated in Table V-3.

B. Current CUP Status & Source Needs Assessment

In November, 2008, the Town was issued its current Consumptive Use Permit, CUP, by the St. Johns River Water Management District, SJRWMD. The CUP reads "The District authorizes, as limited by the attached permit conditions, the use of 102.10 million gallons per year (0.28 million gallons per day average) of groundwater from the Floridan aquifer for public supply use for serving a population of 5,873 residents in the year 2028". The permit states an expiration date of November 11, 2028 and lists the maximum annual withdrawal by each year. The Town's permitted withdrawals, pumping and treatment capacities can accommodate the entire service area for the planning period in question. Adopted concurrent with the Town's Water Supply Facilities Work Plan, FY 2010-FY 2020, were amendments to this Element's, Objective 4.3 and Policies 4.3.1 through and 4.3.11 that are aimed at expanding the Town's water conservations efforts. As stated above, projected demand does not take into account reduced demand through enhanced water conservation efforts by the Town.

C. Intergovernmental Coordination and Concurrency

Pursuant to Sec.163.3180(2)(a), Florida Statutes, concurrent with the Town's adoption of its Water Supply Facilities Work Plan, FY 2010-FY 2020, the Town adopted the following comprehensive plan amendments: revised Policy 4.1.2 and added new Policy 5.1.1 of this Element; revised Objective 1.2 and Policy 1.2.1 by adding new Policies 1.2.1 and 1.2.2_ of the Capital Improvements Element, which require continued implementation of the Town's concurrency management system to assure that adequate water supplies and facilities are available for proposed development prior to the issuance of building permit or its functional equivalent; and amended Policy 1.5.3 of the Intergovernmental Coordination Element, to require updating of this WSWFP and the Town's participation in the District's water supply planning process. The aforementioned measures ensure that the City coordinates with the Water Management District and that concurrency is addressed pursuant to state law.

**Table V-3
Projected Demand/Capacity for Pierson’s Potable Water Service Area, 2010-2020**

Year	Estimated Population	Projected Avg. Daily Demand (GPD)	Average Daily Allocation (GPD)
2010	3,325	179,100	180,000
2011	3,467	189,200	190,000
2012	3,609	196,700	200,000
2013	3,750	204,300*	200,000
2014	3,892	211,800*	210,000
2015	4,034	219,300	220,000
2016	4,141	225,000*	220,000
2017	4,247	230,600*	230,000
2018	4,354	236,300	240,000
2019	4,460	242,000*	240,000
2020	4,587	247,600	250,000

Source: Consumptive Use permit No. 4244, Town of Pierson Municipal Water Supply, November 11, 2008 and Table 2, Projected Water Use, Consumptive Use Permit Application, additional data, August 5, 2008.

Notes:

- 1.* indicates years where projected demand exceeds allocation. This is not expected to occur since, based on recent BEBR projections, actual population growth will be much less than projected in the CUP application.
2. Projected demand takes into account a small increase in commercial/industrial demand associated with residential growth and the planned construction of the new regional school.
3. As shown on Exhibit 1, the Town’s water supply service area is slightly larger than its corporate limits.

D. Conservation and Reuse

The Town will continue to enforce the St. John’s River Water Management District’s lawn and landscape irrigation rules. Concurrent with the Town’s adoption of its Water Supply Facilities Work Plan, FY 2010- FY 2020, the Town amended this Sub-Element’s Goals, Objectives and Policies by adding Objective 4.4 which sets a goal of reducing potable water demand by 10 per cent by the year 2015 and, and based upon input from the Water Management District, added new Policies 4.3.1 through 4.3.11 aimed at greatly expanding the Town’s water conservation efforts.

E. Facility Work Plan Capital Needs

As stated above and depicted on Table 2, adequate water supply is available to meet the projected demand through the year 2020 within the Town's potable water service area without the need for AWS. The expansion of the Town's water conservation efforts by implementing Objective 4.3 and Policies 4.3.1 through 4.3.11 is expected to reduce consumption even below current demand projections, Table V-3.

As stated previously, the Town is currently in the process of determining the appropriate course of action and means to finance improvements to its distribution system to meet fire flow needs of a proposed regional school in north Pierson. The school project was recently removed from the School Board's five year work program and a new construction date has yet to be established. Those improvements will include construction of a third well.

When the estimated construction date is determined and the Town decides the best alternative for system improvements and financing those improvements, the Town will revise its Capital Improvements Element as necessary.

NATURAL GROUND WATER AQUIFER RECHARGE SUB-ELEMENT

REGULATORY CONSIDERATIONS

Federal

In 1986, the Federal Safe Drinking Water Act (PL 93-523) was amended to strengthen protection of public water system wellfields and aquifers that are the sole source of drinking water for a community. The amendments for wellfield protection require states to work with local governments to map wellhead areas and develop land use controls that will provide long-term protection from contamination for these areas. The aquifer protection amendments require EPA to develop criteria for selecting critical aquifer protection areas. The program calls for state and local governments to map these areas and develop protection plans, subject to EPA review and approval. Once a plan is approved, EPA may enter into an agreement with the local government to implement the plan.

State

In implementing the Florida Safe Drinking Water Act (Chapter 403, F.S.), FDEP has developed rules classifying aquifers and regulating their use (Chapter 17-22, Part III, F.A.C.). FDEP has also established regulatory requirements for facilities which discharge to ground water (Section 17-4.245, F.A.C.) and which inject materials directly underground (Chapter 17-28, F.A.C.).

The task of identifying the nature and extent of ground water resources available within the state has been delegated to the water management districts. Each district must prepare and make available to local governments a Ground Water Basin Resource Availability Inventory (GWBRAI), which the local governments are to use to plan for future development in a manner which reflects the limits of available resources.

The Florida Legislature has also directed local governments to include topographic maps of areas designated by the water management districts as prime recharge areas for the Floridan or Biscayne aquifers in local comprehensive plans, and to give special consideration to these areas in zoning and land use decisions (Section 163.3177(6)(c), F.S.).

Local

Pursuant to authority granted by the County's charter, it has adopted minimum standards for protection of wellfields. The Town of Pierson has not yet adopted a wellfield protection ordinance complying with the County's minimum standards.

EXISTING CONDITIONS

Physiography

Pierson lies entirely within the Volusia ground water basin. This basin encompasses areas reflecting diverse physiographic characteristics, including karst topography, marine terraces, and shoreline ridges. Pierson lies upon a karst ridge known as the Crescent City ridge.

Karst topography is an irregular, pitted land surface formed by the dissolution of limestone. This topography is characterized by high relief, circular lakes and sinkholes. Figure V-43 illustrates the karst topography in the vicinity of Pierson.

Hydrogeology

Three aquifers have been identified in the Volusia ground water basin. These are the surficial (unconfined), the intermediate and the Floridan aquifer systems. The surficial aquifer system is composed of sand, shell and some clay. It ranges in thickness from 25 feet near the St. Johns River to approximately 80 feet in the central part of the basin. Because there is no overlying confining unit, the aquifer is directly replenished by rainfall. The top of the aquifer is the water table. The level of the water table normally follows the topography of the land. Within Pierson, as well as other areas of Volusia County, the surficial aquifer is used as a source for small-scale irrigation (not including most agricultural uses).

The intermediate aquifer is composed of clays and thin, water bearing zones of sand, shell and limestone. This aquifer occurs at 40 to 90 feet below land surface. This aquifer is not recognized as a significant source by water users in the Pierson area.

The Floridan aquifer is the principal source for public, industrial, irrigation and rural domestic water supplies in Volusia County. It is an artesian aquifer composed of limestone and dolomite.

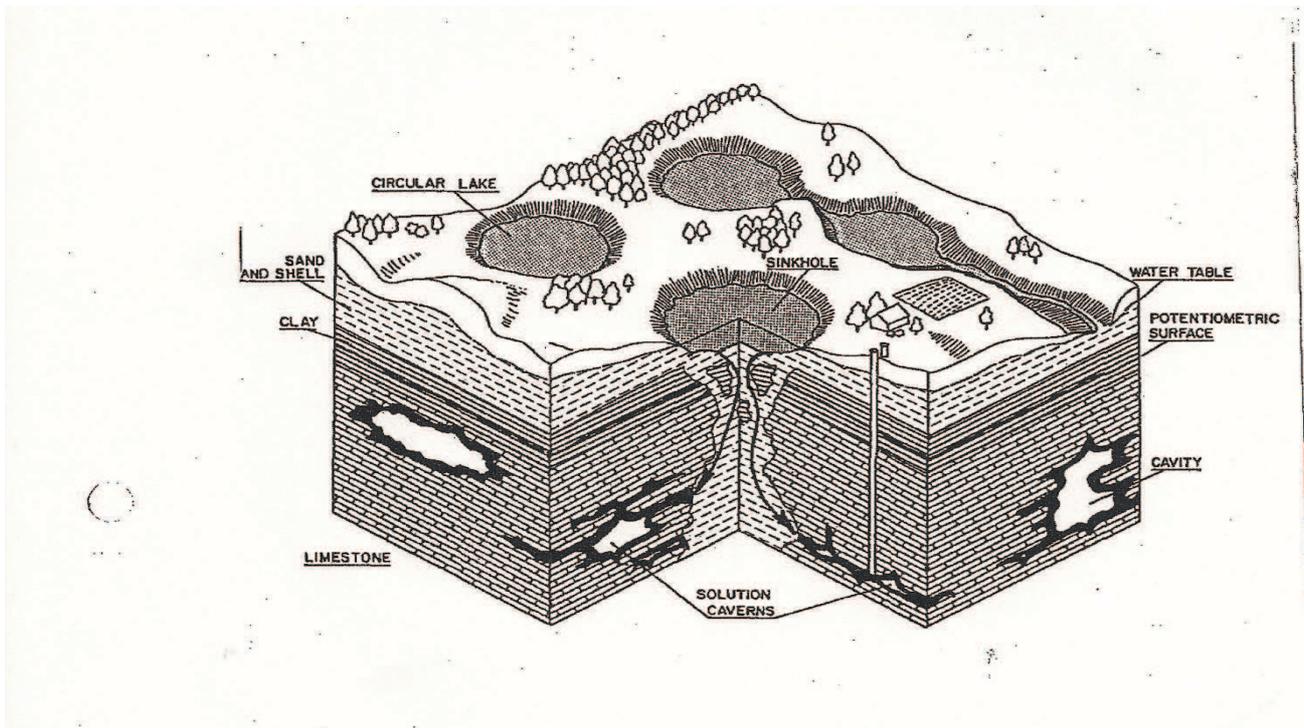
Recharge and Discharge

The Floridan aquifer is recharged by the surficial aquifer system in areas where the water level in the surficial aquifer system is higher than the potentiometric surface of the Floridan aquifer. The Crescent City ridge is identified by the St. Johns River Water Management District as an area of high recharge due to this relatively great difference between the surficial aquifer water table and the potentiometric surface of the Floridan aquifer. Discharge occurs where the potentiometric levels of the Floridan aquifer are greater than the water levels in the surficial aquifer. Discharge normally occurs in the form of springs and free flowing wells. Figure V-4 shows the approximate areas of recharge and discharge of the Floridan aquifer in the Volusia ground water basin.

Figure V-5, prepared by the St. Johns River Water Management District, SJRWMD, shows the Floridan Aquifer recharge areas for the Town of Pierson and vicinity. According to the map, the majority of the highest recharge area, more than 20 inches/year, is located in an area

FIGURE V- 3
KARST TOPOGRAPHY IN THE VOLUSIA GROUND WATER BASIN

Source: Volusia Ground Water Basin Resource Availability Inventory, Margaret McKenzie-Arenberg, Technical Publication SJ 89-4, St. Johns River Water Management District, 1989.



where the town is currently most densely developed with both commercial and residential uses. While this is not an uncommon historical development pattern in Florida communities, it does emphasize the needs for retaining as much open space as possible in this area, monitoring existing development activities and restricting the type of uses that can be developed, to insure maximum protection of the aquifer.

Ground Water Quality

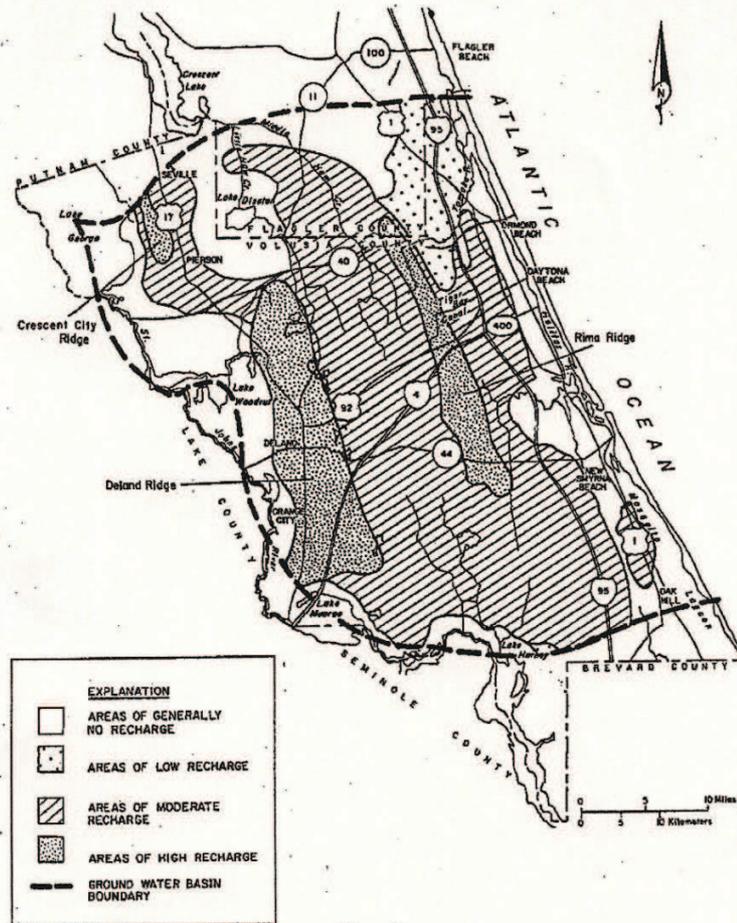
In coastal areas of Volusia County, the surficial aquifer and the Floridan aquifer are subject to salt water intrusion. The Floridan aquifer is also subject to salt water intrusion near the St. Johns River. Rapid and prolonged withdrawal of water from the aquifer will promote salt water intrusion. In the Pierson area, however, salt water intrusion has not been experienced. Despite heavy pumping for freeze protection of ferns, chloride (salt) concentrations in well water typically measure less than 250 milligrams per liter.

Water Use

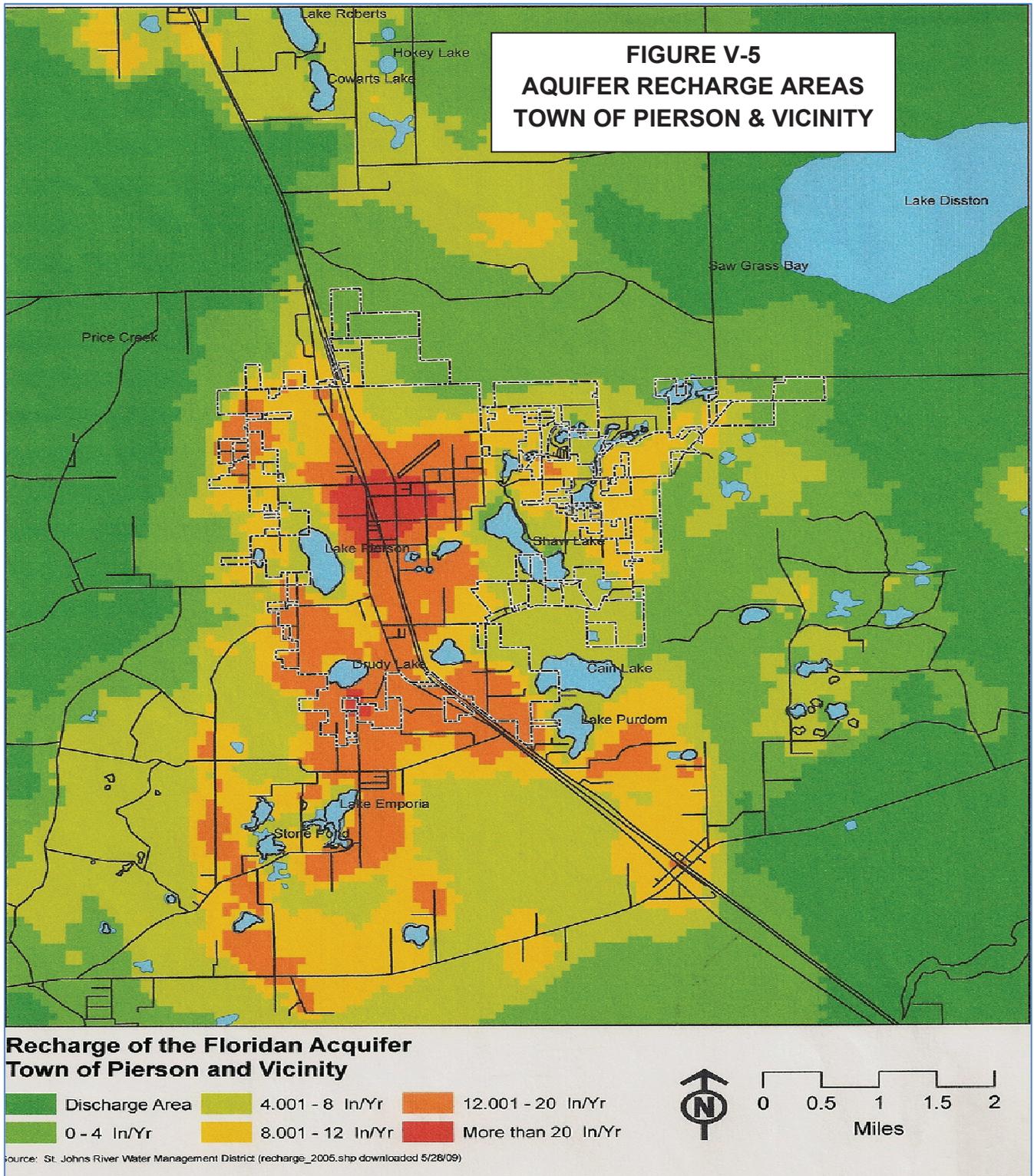
Agriculture is the primary use of ground water in the Pierson area. Water is used for both irrigation and freeze protection. Freeze protection efforts have a particularly significant effect on the Floridan aquifer. During a prolonged freeze, pumping may drop the aquifer level as much as 50 feet in localized areas. However, full recovery of aquifer levels occurs within about two days. These dramatic fluctuations resulted in loss of water for many Pierson residents with shallow wells. This led the Town to construct a municipal water system supplied by two deep wells to eliminate the problems experienced by residents. It has also been the impetus to look for ways to reduce water usage for freeze protection.

Figure V-4 (Formerly Figure V-2)

FIGURE V-2
APPROXIMATE AREAS OF NATURAL RECHARGE AND DISCHARGE
OF THE FLORIDAN AQUIFER IN THE VOLUSIA GROUND WATER BASIN



Source: Volusia Ground Water Basin Resource Availability Inventory, Margaret McKenzie-Arenberg, Technical Publication SJ 89-4, St. Johns River Water Management District, 1989.



CHAPTER V
**UTILITIES ELEMENT: SANITARY SEWER, SOLID WASTE, DRAINAGE,
POTABLE WATER, AND NATURAL GROUNDWATER AQUIFER RECHARGE ELEMENT**

GOALS, OBJECTIVES & POLICIES

Goal V-1 -To provide for the disposal of all wastewater generated in the Town in the most economical, environmentally sound, and cost efficient manner possible.

Objective V-1.1 - The Town shall enforce its Land Development Regulations requirements for development review, and update as necessary, to ensure that, at the time a development permit is issued, an adequate wastewater treatment system is provided to serve the development.

Policy V-1.1.1 – Per the Data, Inventory and Analysis, the following level of service standard is hereby adopted, and shall be used as the basis for determining the availability of facility capacity and the demand generated by a development:

Applicable standards of the Department of Health for septic tanks as set forth in Chapter 10D-6, Florida Administrative Code.

Policy V-1.1.2 - Issuance of development orders or permits will be conditioned upon demonstration of compliance with applicable federal, state and local permit requirements for septic tanks.

Policy V-1.1.3 - The Town shall coordinate with appropriate federal and state agencies and amend local ordinances to require that issuance of permits for replacement or expansion of existing on-site wastewater treatment systems is conditioned upon compliance with current regulatory requirements and water quality standards.

Policy V-1.1.4 - The Town will encourage the use of small scale wastewater treatment systems in new commercial developments when the scale of the project makes the use of such systems a practical and feasible alternative to septic tanks.

Objective V-1.2 - The Town will continue to cooperate with the Volusia County Health Department and the Volusia County Environmental Management Department to promote periodic inspection and maintenance of septic tanks.

Policy V-1.2.1-The Town shall encourage periodic inspection and maintenance of septic tanks through education and incentive programs.

Goal V-2 - Provide for the collection and disposal of household, commercial, and construction solid and hazardous wastes in a manner that is convenient, environmentally sound, sanitary, and cost efficient.

Objective V-2.1 – By 2012, in cooperation with the County’s Solid Waste Management Division and the Town’s private waste hauler, the Town shall review its current methods for

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Chapter V Utilities Element Goals, Objectives and Policies

disposal of solid and hazardous wastes and its recycling efforts to ensure that these wastes are being disposed/recycled in the most environmentally sensitive and cost efficient means.

Policy V-2.1.1 - The Town shall monitor activities within the town that are known to use hazardous materials in order to ensure compliance with applicable handling and disposal rules and guidelines.

Policy V-2.1.2 - The Town shall encourage citizens to utilize the County's facilities at its landfill to dispose of household hazardous wastes and, in cooperation with the County's Solid Waste Management Division, establish periodic local collection opportunities.

Policy V-2.1.3 - The Town shall cooperate with the Volusia County Department of Environmental Protection Agency to promote better awareness of the need for proper disposal of hazardous wastes.

Objective V-2.2 – Encourage citizens to deposit recyclable wastes at the current collection point and explore curbside collection as a part of the review addressed in Objective 2.1, above.

Policy V-2.2.1 – Pierson will coordinate and cooperate with Volusia County and the Town's current waste collection franchise to explore the feasibility of curbside collection of recyclable wastes.

Policy V-2.2.2 – Per the Data, Inventory and Analysis, the Town hereby adopts a level of service standard of 1.8 pounds per capita per day for solid waste collection, and shall ensure that the private franchised solid waste collector has the capacity to provide that level of service for the population of Pierson.

Goal V-3 - Provide adequate stormwater management to protect human life and health and the value of property, and to prevent degradation of water quality in the lakes and the aquifer.

Objective V-3.1 - The Town shall enforce Article VII of its land development regulations which establishes criteria and procedures for determining whether proposed stormwater management systems are adequate to prevent flooding and degradation of natural surface waters.

Policy V-3.1.1 - In order to determine the adequacy of a proposed stormwater management system, the following level of service standard is hereby adopted:

- 1) The discharge hydrograph produced for the developed or redeveloped site shall not exceed by more than ten (10) percent in terms of peak flow and total volume, the hydrograph produced by conditions existing before development or redevelopment for a twenty-five-year frequency, twenty-four hour duration storm. However, the first one inch of rainfall for each storm falling on all areas caused by or resulting from the project shall be retained on site. In addition, the cumulative impact of the outflow hydrograph on downstream

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flow shall be considered. Runoff rates and volumes resulting from the project, in excess of existing amounts, shall be accommodated on-site.

- 2) The peak discharge resulting from a one hundred-year frequency storm on the developed or redeveloped site shall not exceed the peak discharge resulting from a one hundred-year frequency storm for existing conditions on the site.

Goal V-4 - Provide adequate quantity and quality of potable water to meet the demands of the present and future population for consumption and other purposes.

Objective V-4.1 - No use or development of land shall occur in Pierson unless adequate water system capacity is available or will be available when needed to serve the development.

Policy V-4.1.1 - A level of service standard of 56 gallons per capita per day (total demand for all users/current population) is hereby adopted, and shall serve as the basis for determining the availability of adequate water system capacity.

Policy V-4.1.2 - The Town shall not issue development orders or development permits without first determining whether adequate water supplies to serve the development will be available no later than the anticipated date of issuance by the Town of a certificate of occupancy per the Town's potable water concurrency system of its Land Development Regulations.

Policy V-4.1.3 – The Town, in accordance with the Volusia County Comprehensive Plan, shall enter into an interlocal agreement with the county for those portions of its potable water service area outside the Town's corporate limits.

Objective V-4.2 - The Town shall maintain a five-year schedule of capital improvement needs for public facilities, to be updated annually in conformance with the review process for the Capital Improvements Element of this Plan.

Policy V-4.2.1 - Potable water facility projects shall be undertaken in accordance with the Capital Improvements Element of this Plan.

Policy V-4.2.2 - All improvements for replacement, expansion or increase in capacity of the potable water system shall be compatible with the adopted level of service standards for the facility.

Policy V-4.2.3 - To the greatest extent possible, the cost of providing potable water system improvements will be borne by those benefiting from such improvements.

Policy V-4.2.4 - New developments shall be required to pay the full cost of potable water system improvements needed to serve only those developments, and the proportionate cost of improvements needed to serve more than one development.

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Policy V-4.2.5 - The Town of Pierson's 10 Year Water Supply Facilities Work Plan, WSFWP, FY 2010-FY 2020 was adopted as a part of this Sub-Element's Data, Inventory & Analysis and Goals, Objectives and Policies on August 24, 2010. The Plan shall be updated, at a minimum, every 5 years within 18 months after the St. John's River Water Management District approves its updated regional water supply plan. The work plan identifies existing and projected water use and existing and alternative potable water sources, evaluates/updates the Town's conservation and reuse efforts and identifies capital improvement projects necessary to meet the needs of existing and projected development.

Objective V-4.3 - The Town recognizes the importance of water conservation and will continue to implement water conservation practices. The Town will also explore options to develop Alternative Water Supplies, AWS, to reduce potable water demand.

Policy V-4.3.1 - The Town shall continue to enforce building code requirements for water saving fixtures in new construction and substantial rehabilitation.

Policy V-4.3.2 - The Town shall ensure the removal of plants that require high water consumption when redeveloping Town properties and replace with water-wise landscape materials. All new developments within the Town shall utilize waterwise landscape materials.

Policy V-4.3.3 -The Town shall amend the Land Development Code to promote and encourage the use of low impact development techniques such as the Florida Water StarSM program.

Policy V-4.3.4 - The Town shall require the establishment of a water conservation plan for new subdivisions and planned unit developments. Each plan shall include at a minimum the following: installation of low flow fixtures, indoors and outdoors; use of waterwise landscape materials; and annual water audits performed by a certified water auditor.

Policy V-4.3.5 - The Town will investigate grant opportunities for financing stormwater for irrigation and other nonpotable uses in the community.

Policy V-4.3.6 - The Town will adopt an ordinance by December, 2011 that implements SJRWMD's lawn and landscape irrigation rule.

Policy V-4.3.7 - The Town will enforce watering restrictions consistent with the District's lawn and landscape irrigation rule.

Policy V-4.3.8 - The Town shall continue to implement the following water distribution system conservation measures:

- a. Continue Implementation of an inclined block rate structure.
- b. Perform meter calibrations, water audits and a leak detection programs to reduce the potential for any wasteful system losses.
- c. Continue the customer education program and expand where financially feasible.
- d. Continue to ensure that all service connections are metered.
- e. Maintain all water meters.
- f. Continue to disallow master water meters.
- g. Continue to implement the water conservation plan received by SJRWMD on September 7, 2007.
- h. Provide incentives for water conservation in new developments.
- i. Implement public education and outreach programs.

Policy V-4.3.9 - The Town shall explore and study methods to reduce average potable water demand with particular emphasis placed on reducing landscape irrigation.

Policy V-4.3.10 – The Town will explore all financially feasible Alternative Water Supply, AWS, efforts that can be implemented by the Town.

Policy V-4.3.11 – The Town shall utilize lower quality sources of water for nonpotable needs when such sources (storm water, surface water, reclaimed water) are available and financially feasible.

Goal V-5 – Protect aquifers that underlie the Town and its environs to the greatest extent possible.

Objective V-5.1 – On November 8, 2011 the Town updated its Land Development Regulations, by adding a new Section 8.5 High Aquifer Recharge Areas, to ensure: that land areas that are designated by the St. Johns River Water Management District as Floridan Aquifer high recharge areas are protected to the greatest extent possible subject to respecting private property rights. The Town shall enforce the provisions of Section 8.5 when reviewing development proposals in high recharge areas.

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Policy V-5.1.1 - Concurrently, the Town shall also revise/update its Land Development Regulations for consistency with and support of Volusia County's Goals, Objectives and Policies of Chapter 10, Natural Groundwater and Aquifer Recharge Element, of their Comprehensive Plan, to monitor, protect and enhance the Surficial and Floridan aquifers.

Policy V-5.1.2– When a development proposal may have a significant impact on the Floridan aquifer, the Town will consult both the Water Management District and the County for input in the development review process.

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**CHAPTER VI
CONSERVATION ELEMENT
DATA INVENTORY & ANALYSIS**

INTRODUCTION This plan element addresses the requirements of the Florida Community Planning Act (CPA) in s. 163.3177(6)(d) FS pertaining to the Conservation Element. The primary purpose is to maximize the use and enjoyment of the natural resources of the Town for present and future generations.

INVENTORY AND ANALYSIS OF NATURAL RESOURCES

Physiography

Volusia County is within the lower Atlantic Coastal Plain. This plain is covered with sandy marine sediments of the Pleistocene to recent age forming broad, never level marine terraces, relict shorelines and karst ridges. Pierson lies on one of those ridges, the Crescent City Ridge, see Figure VI-1 that shows the general location of the Town in relation to the Ridge. The original form of this ridge, created by action of waves and wind during a period when sea level was much higher than it is today, has been altered by erosion and collapse of solution caverns in the underlying limestone. As a result, the local relief is greater than in any other physiographic regions of the county. Figures VI-2A & VI-2B show the topography for Pierson and surrounding areas. Numerous small lakes dot the landscape. The Crescent City Ridge has little or no run-off because most of the rain percolates rapidly down through sandy soils. Water is not lost through evapotranspiration soon reaches the water table, where it recharges the aquifer or accumulates in lakes.

Lakes

Within Pierson, there are 5 major lakes -- Lake Pierson, Shaw Lake, Drudy Lake, Tuey Lake and Lake Horn -- and several lesser lakes comprising a approximately 30079 acres. Water quality and biological productivity in these lakes is generally good. Typical of lakes occurring in areas of karst topography, these are all hydrologically isolated lakes -- without surface connections to other surface water bodies. Because there is no through-flow or natural flushing in these lakes, they are highly susceptible to pollution by run-off from nearby uplands. Direct run-off, either from rainfall or agricultural irrigation, carries sand and silt, fertilizers, pesticides, oils and heavy metals into these lakes where it can accumulate. Leachate from septic tanks is another potential pollution threat. In the highly permeable soils typical of the area, lateral movement of septic tank effluent can be significant. Viral and bacterial pollution is likely to occur when septic tanks are located too close to lakes. Drops in water level during periods of low rainfall result in even greater concentrations of pollutants.

In order to maintain the water quality and biological productivity of these aesthetic and recreational resources, steps should be taken to minimize pollutant-laden stormwater or irrigation discharge directly into the lakes. When the highly permeable soils of the Pierson area are left in a natural, vegetated condition, percolation is rapid. Most of the agricultural irrigation returns to the aquifer in this manner, never reaching surface waters. Development

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CHAPTER VI CONSERVATION ELEMENT DATA INVENTORY AND ANALYSIS

densities and impervious surface areas such as paved parking lots should be minimized and open space should be maximized to maintain this natural recharge function.

Natural vegetative buffers surrounding the lakes should be preserved. Much of the land around these lakes still exists in a natural, vegetated state, and continues to perform a natural filtering function that removes most pollutants from run-off before it reaches the lakes. However, as development continues to occur, attention must be given to managing stormwater and irrigation run-off.

In addition, natural drainage flows should be maintained. Channelization of drainage flows reduces the surface area of vegetation through which the run-off is filtered. It also tends to increase the velocity of drainage flow, resulting in increased scouring and higher capacity to carry sediments.

Finally, design and location of septic tank systems must take into account the pollution threat. The rules of the Florida Department of Health and Rehabilitative Services pertaining to on-site sewage disposal systems (Chapter 100-6, FAC.) prohibit placement of new systems within 75 feet of the ordinary high water line of lakes and other non-tidal surface waters. This rule also applies to the design high water level of drainage retention ponds serving more than two lots.

The St. Johns River Water Management District has authority to regulate discharges to surface waters under certain circumstances. The Rules of the Department's Management and Storage of Surface Waters permitting program are set out in Chapter 40-C, F. S. Generally, a project in Pierson will be exempt from FDERP review if it is less than 40 acres or involves less than 5 contiguous acres of hydrologically sensitive area.

Wetlands

Wetlands comprise more than 248 acres, or nearly 19% of the total land area of Pierson. Wetland vegetation associations within the town have been identified and mapped by the St. Johns River Water Management District and are shown on Figure VI-3 and as Conservation on the Future Land Use Map, Figure II-3 . These wetlands associations include open waters, freshwater marshes and forested wetlands.

Wetlands offer numerous benefits to man, including maintenance of wildlife and fish populations, flood storage, and filtration of run-off. Because of their high natural resource value, wetlands should be protected.

There are a number of regulatory programs in effect to protect wetlands. The Florida Department of Environmental Protection, FDEP, the St. Johns River Water Management District, SJRWMD, and the U.S. Corp of Engineers, USCOE, all review permit applications for alteration of wetlands. FDEP's jurisdiction pertains only to waters that are hydrologically connected to waters of the State. Since no wetlands in Pierson have that distinction, the

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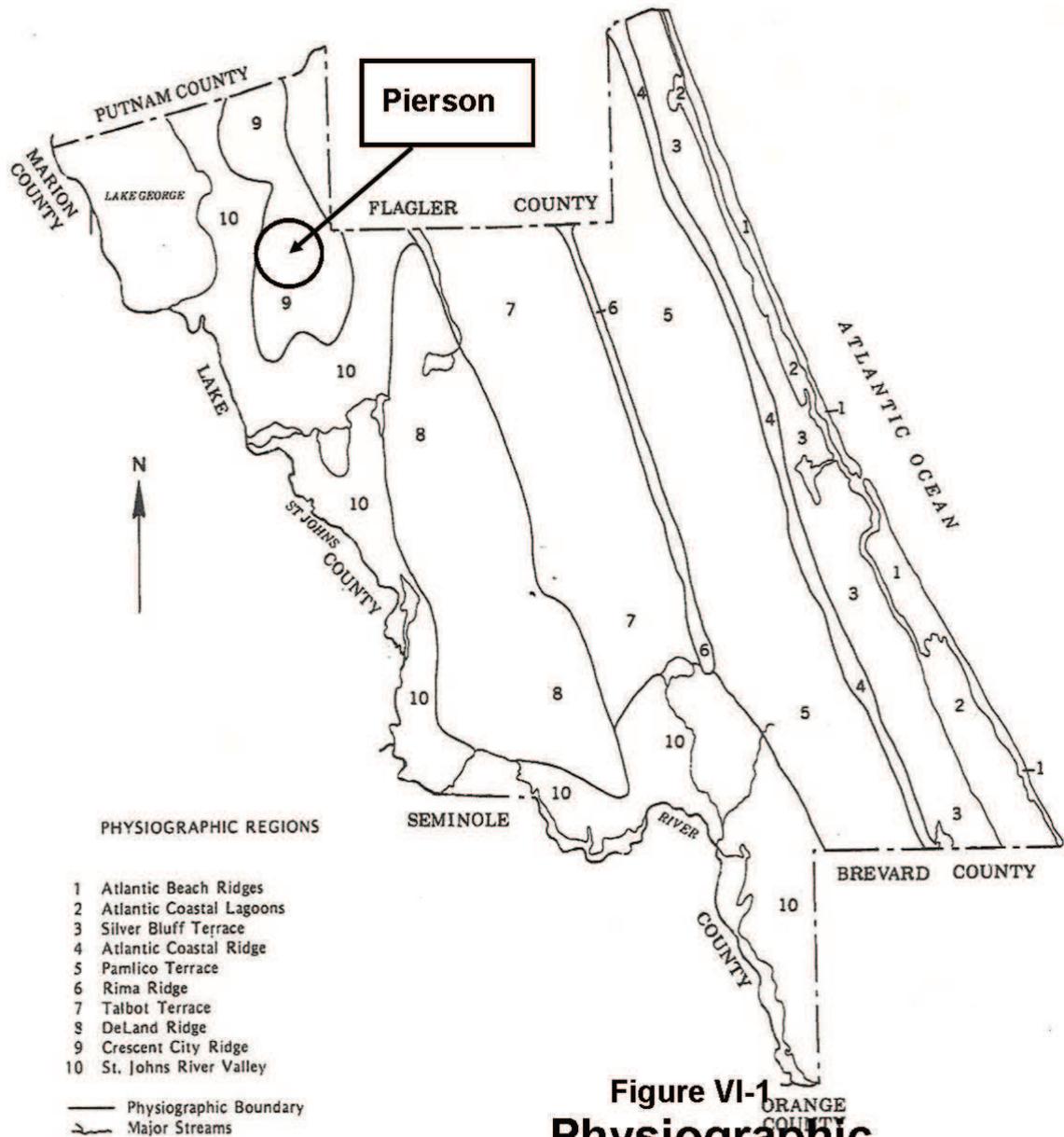


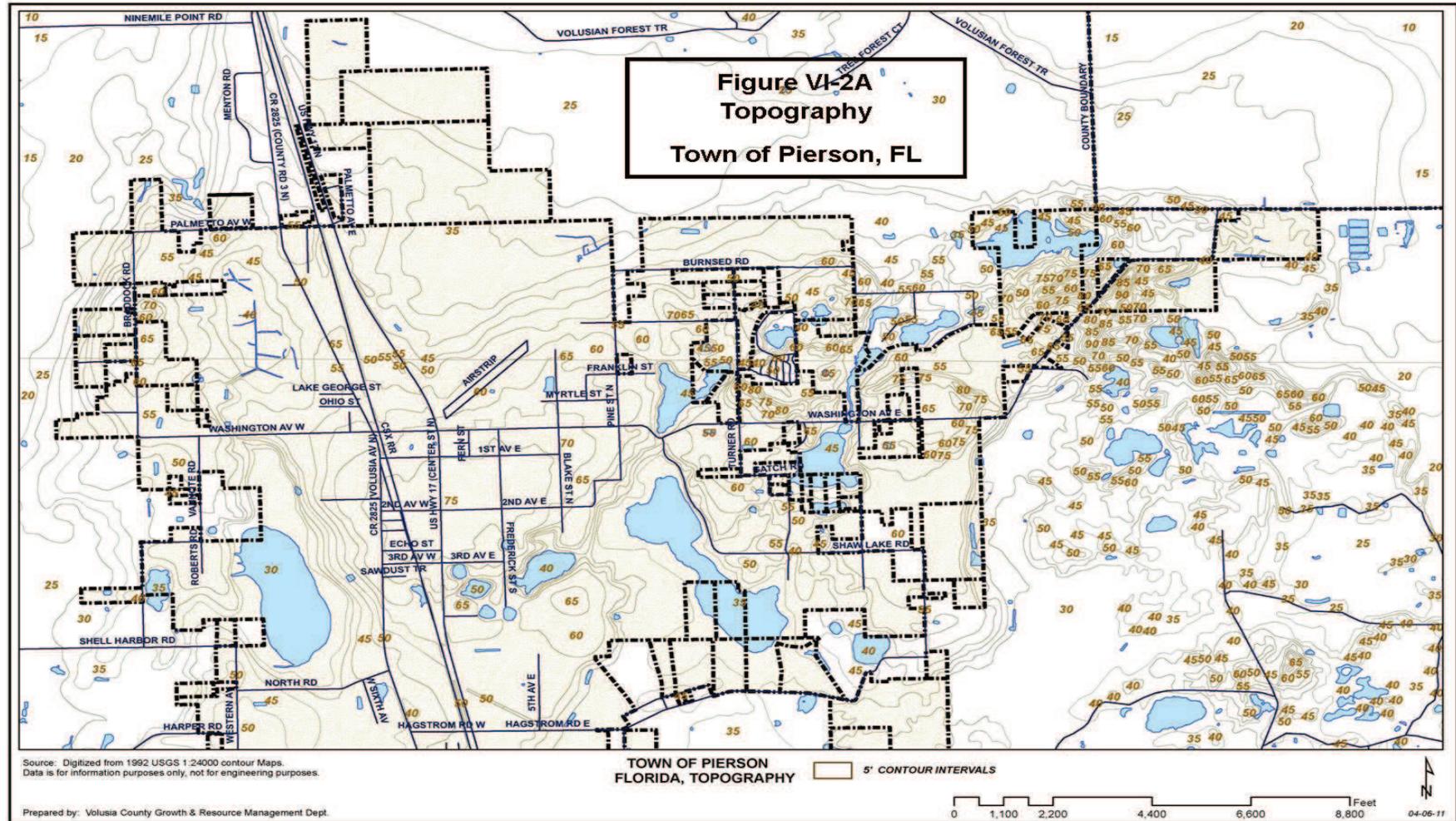
Figure VI-1
**Physiographic
 Regions**

**VOLUSIA COUNTY
 FLORIDA**

Source: Soil Survey of Volusia County, FL, 1980

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FDEP is not involved here. However, both the Corp of Engineers and the Water Management District have jurisdiction over isolated wetlands. Volusia County adopted Ordinance No. 89-8, Minimum Standards for Environmental Protection. In accordance with authority granted to the County by its charter, this ordinance is applicable within cities, as well as the unincorporated areas, unless the cities have enacted comparable regulations. Pierson adopted its comparable regulations as Article VIII, Resource Protection, of its Unified Land Development Regulations.

Section 8.2, Wetlands, of Article VIII, Resource Protection, includes requirements for: wetland identification methodology; exempt activities; permit requirements; review criteria; permit conditions; buffers; and mitigation. The Section requires a 25 ft. wide wetlands protection buffer of existing native vegetation or planted native species located on the uplands immediately adjacent to the wetlands. These upland buffers have intrinsic value as wildlife habitat as well as providing a filtering mechanism for stormwater and irrigation run-off.

Since it's not financially feasible for the Town to employ in-house staff to administer its wetland protection requirements, if a survey submitted with a development application indicates a potential wetland impact, the Town will contract for technical assistance to review the plan. In addition, Section 8.2 requires that no development orders are issued until all permit requirements from applicable regional, state and federal agencies have been satisfied.

Air Quality

The quality of air in the Pierson area is good. In 2010, the Town's air quality index was 21.3 with the primary source of air pollutants being vehicular emissions. However, since Pierson is a very low density area, with relatively little traffic and no significant traffic congestion, the impact of vehicular emissions is minimal. Moreover, the winds, which average slightly, more than eight miles per hour, quickly dissipate most pollutants before they accumulate to significant levels.

This may not always be the case if increased truck traffic from the proposed Walmart Distribution Center in Putnam County has a significant impact on air quality in the vicinity of the US Highway 17 corridor. The Town should request assistance from the FDEP to perform ambient air quality testing in advance of the facility becoming operational and subsequent testing post operation to determine if significant impacts to air quality are observable. If such is the case, the Town would also request assistance from FDEP to determine what, if any, mitigation efforts could be employed.

Current and Projected Water Usage & Existing Level of Water Conservation, Use & Protection

Because water is possibly our most precious resource, the Conservation Element is required to address current and projected water usage to assure an adequate supply exists and to evaluate existing conservation, aquifer use and protection and applicable policies of the regional water management district. In 2010, as required by Section 163.3184(3)(a) FS and Rule 9J-11.006(10(a))3 FAC, the Town of Pierson adopted its 10 Year Water Supply Facilities Work Plan, WSFWP, as an amendment to its Potable Water Sub-Element and associated amendments to

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Chapter IX, Capital Improvements Element, CIE, and Chapter VIII, the Intergovernmental Coordination Element, ICE, Goals, Objectives and Policies, GOP's. Considering these amendments extensively address all issues related to potable water, per Statute and Rule requirements heretofore addressed in this section of the Conservation Element, the reader is directed to the amended Potable Water Sub-Element, Data, Inventory and Analysis and GOP's and the CIE and ICE GOP's.

Floodplains

Floodplains, as defined in s.163.3164(18) FS are those areas inundated during a 100-year flood event or identified by the National Flood Insurance Program as a "A" Zone or "V" Zone on Flood Insurance Rate Maps, FIRM's.¹ Figures VI-4A and VI-4B are the FIRM's for the Town of Pierson and vicinity. The shaded areas shown on the maps are Special Flood Hazard Areas, Zone A, that are inundated by a 100 year flood but no flood elevations have been determined.

No documented evidence of flooding problems has been uncovered. Due to the high permeability of soils and the resulting rapid percolation, based on anecdotal data, not even the heaviest rainfalls of memory have caused lasting flooding. Only very localized, shallow flooding of short duration has been observed. Some flooding may be expected to occur in areas immediately adjacent to wetlands areas (see Wetlands Map, Figure VI-3); however, due to the relatively steep rise typical of shoreline areas, these areas of potential flood hazard are generally very narrow. Generous building setbacks from shorelines and wetlands, required by the Town's wetlands regulations in its Land Development Regulations, Article VIII, Section 8.2, should also ensure adequate setback from flood prone areas.

Commercially Valuable Minerals

No commercially valuable minerals have been identified within the town.

Soils

Figure VI-5, shows the soils that occur within the Town's corporate limits. By referring to this map and the Soil Survey of Volusia County, limitations to development, i.e. types of structures and septic tank limitations as well as appropriate agricultural uses can be determined. For example, Figure V-1, in the Sanitary Sewer Sub-Element, shows soil limitations for septic tank systems. While some soil limitations can be overcome with appropriate remediation, knowledge of existing soil conditions is an important planning tool to manage growth and redevelopment.

¹ Flood Insurance Rate Maps, FIRMS, Panels 150 & 300 of 930, National flood Insurance Program, April 15, 2002

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As shown on Figure VI-5, there are four predominant soil types in central and northern Pierson: 1. Tavares Fine sand, 0-5% Slope; 2. Myakka Fine sand; 3. Astatula Fine Sand, 0-8% Slope; and 4. Samsula Muck. In southern Pierson, the predominant soil type is the Deland Fine Sand, 0-5% Slope. According to the Soil Survey of Volusia County, Florida, February, 1980, the following applies to these predominant soil types:

Tavares Fine Sand: High potential for community development but a hazard of pollution to shallow underground water from septic tank absorption fields due to very rapid permeability.

Myakka Fine Sand: Low to medium potential for community development. The seasonal high water table is a hazard for foundations, pavements and septic tank absorption fields.

Astatula Fine Sand: High potential for community development and a hazard for pollution from on-site septic tank absorption fields to underground water sources because of the very rapid permeability.

Samsula Muck: Very low potential for community development due to wetness, standing water, subsidence after drainage and low strength are limiting characteristics.

Deland Fine Sand: High potential for community development, one of the better soils in the county because of a nearly impermeable layer that restricts downward movement of pollutants.

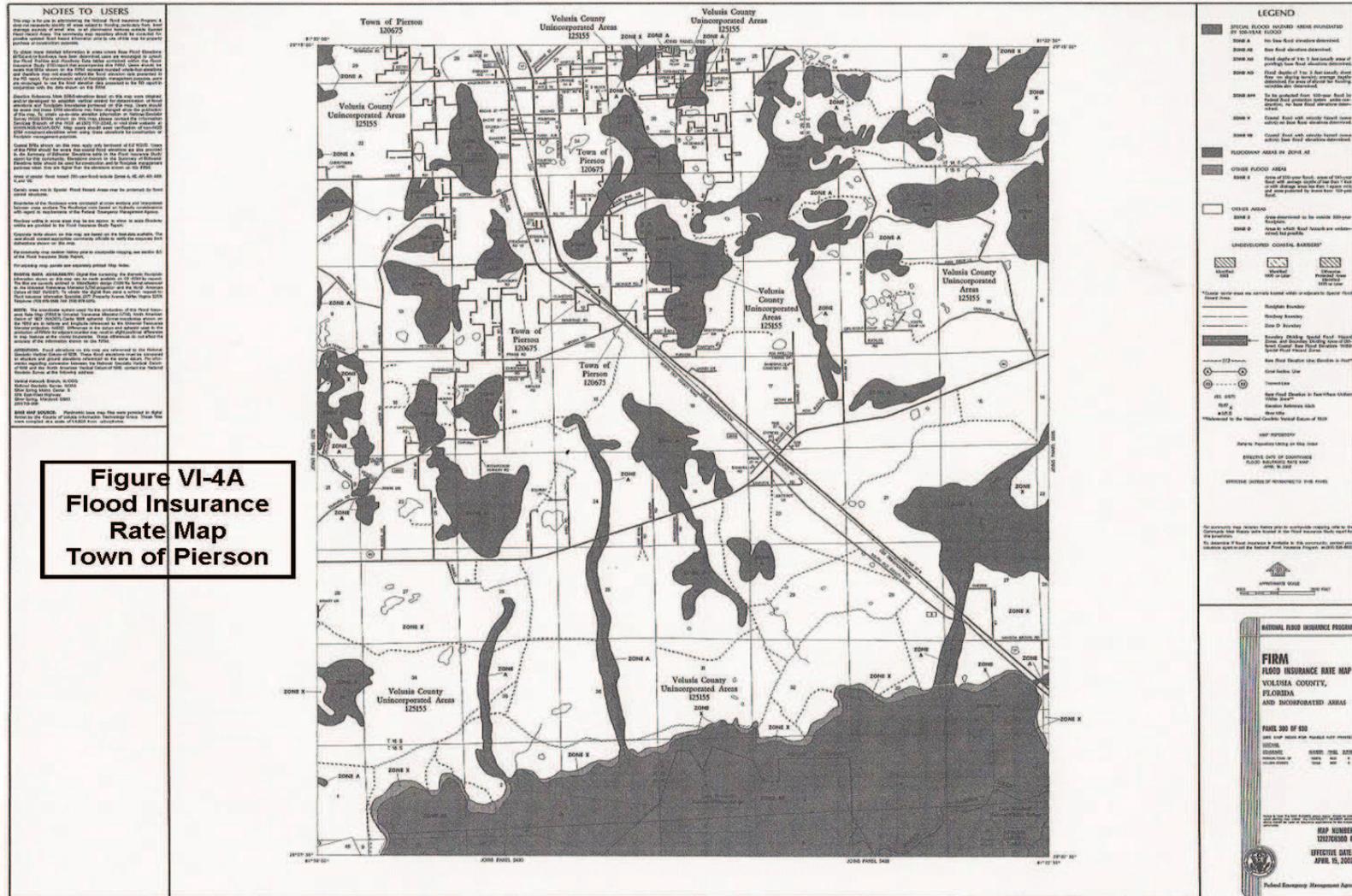
Considering the above soils data and general location of these soil types throughout the Town, the following could be deducted: most of the existing residential and commercial development that has occurred in the town has been on a primary soil type, the Tavares Fine Sand, that has a very high potential for community development but the use of septic tanks, the primary means of sanitary waste disposal, could cause degradation of the shallow underground water table and the deeper Floridan Aquifer, since much of this area is considered to have the potential for aquifer recharge per Figure V-5, of the Potable Water Sub-Element. The issue then becomes how do you minimize this potential pollution problem. Retrofitting existing development with a central sewer system is not considered a practical and feasible alternative at this time due to the Town's size, low density development pattern, available revenue sources and the lack of federal and state funding programs. At this point and into the foreseeable future, the only feasible alternative is the continued monitoring/regulating of septic tank systems to insure that groundwater and aquifer are not being adversely impacted. Maybe, the Statewide Sampling System that will be administered by the Florida Department of Health will meet this need.

The Myakka Fine Sand and Samsula Muck are generally located in the path of new development in the northern, undeveloped portion of the Town. These soils can pose problems for both construction and septic tanks. Development proposals for this area should include alternatives to the typical subdivision design and the use of septic tanks for wastewater treatment.

Conversely to the soil limitations identified above, in areas of existing and future development, the Deland Fine Sand Soil, found in the southern part of the Town seems to best suited for new

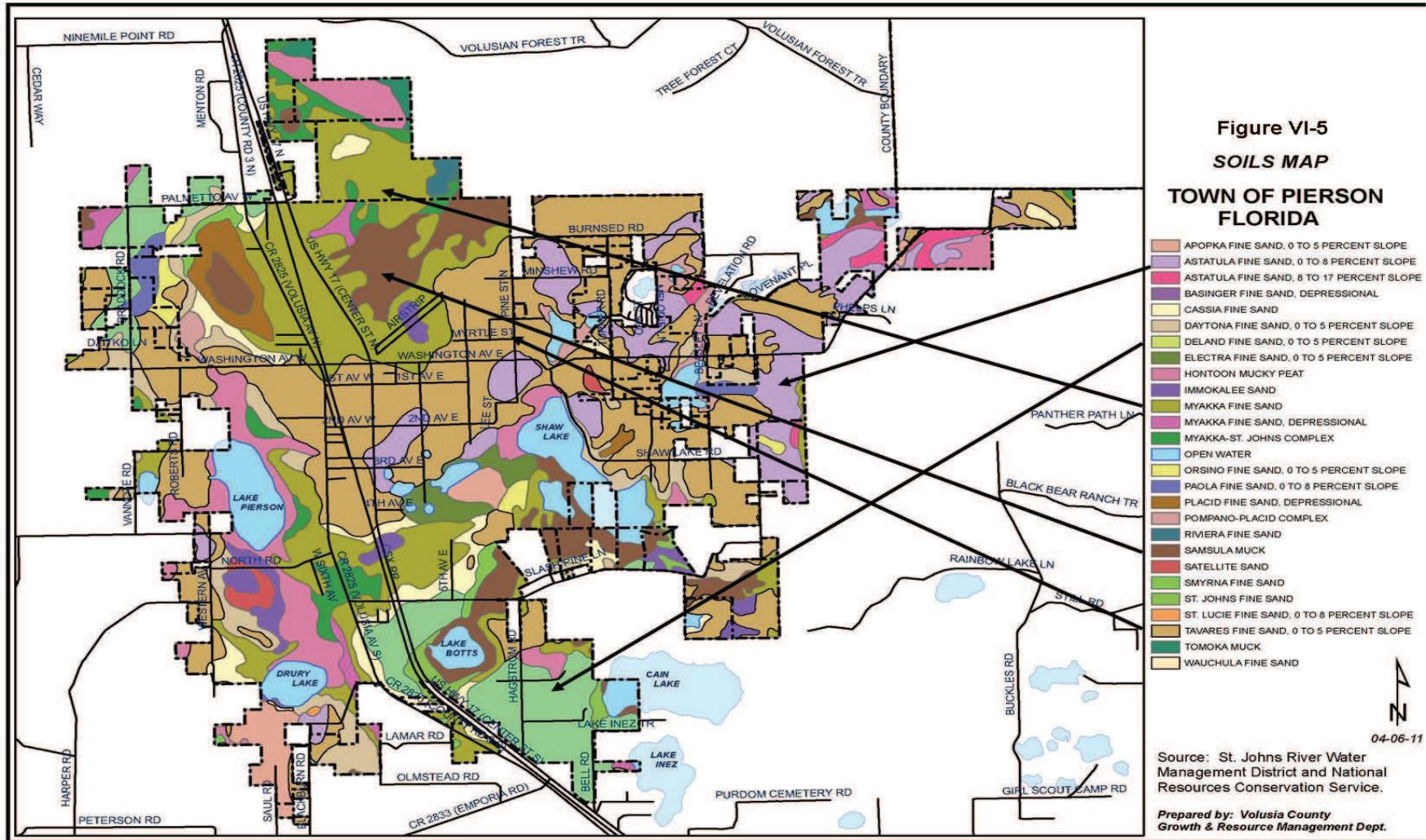
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development and the use of septic tanks for on-site wastewater disposal.

Areas of Actual or Potential Soil Erosion

Soil erosion is generally not a problem in Pierson. However, the potential exists to cause minor erosion of lake banks if channelization of stormwater drainageways is permitted. While this would not likely represent a serious threat of undermining buildings, roads or other structures, it can put harmful silts and other suspended solids into the lakes. Retrofitting existing development and regulating new development to ensure that proper systems are in place to manage and treat stormwater runoff is key to the survival of these lakes as properly functioning ecosystems.

Wildlife and Vegetative Communities

The U.S. Department of Agriculture Soil Conservation Service has identified 16 distinct vegetative associations in Volusia County. Each represents a somewhat different ecological community and their association with certain soil groups that are found in Pierson and shown on Figure VI-5. Of those 16, 4 vegetative associations are found with significant coverage in Pierson -- South Florida Flatwoods, Longleaf Pine-Turkey Oak Hills, Freshwater Marsh & Ponds and Wetland Hardwood Hammocks.²

South Florida Flatwoods

This community is found throughout south and central Florida. The northern limit of its occurrence is approximately on a line from Levy County on the west to St. Johns County on the east. Individual communities may comprise several thousand acres and are typically interspersed with smaller communities of other types, especially wetlands.

Representative Soils:	Immokalee, Myakka, Pomona, Smyrna and Wauchula
Typical Trees:	longleaf pine and slash pine
Typical Shrubs:	dwarf huckleberry, fetterbush, gallberry, saw palmetto, shining sumac, runner oak and wax myrtle
Typical Herbacious Plants:	creeping beggarweed, deer tongue, dog fennel, gayfeather, milk pea and greenbrier
Typical Animals:	deer, bobcat, raccoons, gray fox, fox squirrels, cottontail rabbits, cotton rats, eastern diamondback rattlesnake, pygmy rattlesnakes, opossums, skunks, quail, meadow larks, red-bellied woodpeckers and pileated woodpeckers.

² Volusia County Soils Survey Supplement and Vegetative Analysis, Volusia County Planning Board, 1980

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Fire and water are the major stress conditions of this community. Fire is important in control of hardwoods and natural regeneration of pine. Removal of fire will cause a successional move to a hardwood community.

Flatwoods are good cellulose producers and the original areas of predominantly longleaf pine have been logged. Much of the area of this community within and near Pierson is used for timber production. Intensive management for pulp production can cause major changes in the vegetation. Without proper considerations, this results in a low diversity of plants and an adverse change in some wildlife populations.

This community has good wildlife values, especially with proper management. It is especially important as a wildlife buffer zone adjacent to urban areas occurring on better drained sites.

The following endangered and threatened wildlife species may occur in this community: Florida grasshopper sparrow (*Ammodramus savannarum floridanus*), Little kestrel (*Falco sparverius paulus*), Red-cockaded woodpecker (*Dendrodopos borealis*), Southern bald eagle (*Haliaeetus leucocephalus*). Florida panther (*Felis concolor coryi*) and Sherman's fox squirrel (*Sciurus niger shermani*).

Longleaf Pine-Turkey Oak Hills

This community occurs throughout Florida. Individual communities vary widely in size and a limited number of other communities may occur within it.

Representative Soils:	Tavares and Deland
Typical Trees:	Long Leaf Pine and Turkey Oak
Typical Shrubs:	Gopher Apple, Pawpaw and Runner Oak
Typical Herbaceous Plants:	Grassleaf Goldaster, Partridgepea, Tick Trefoil
Typical Animals:	The more common wildlife species found are indigo snake, gopher tortoise, fence post lizard, ground dove, bobwhite quail, rufous-sided towhees, fox squirrel, white tailed deer and pocket gopher.

This community is a fairly open forest community influenced by fire, heat and drought. The natural vegetation is adapted to withstand the effects of occasional fire. Grasses cover large areas and provide fuel for fire and prevent competing hardwoods from regenerating. Longleaf pine cannot tolerate hardwood competition and, with fire, this species remains dominant. Water moves rapidly through most of the soils to the aquifer with little runoff and minimal evaporation. This is important for aquifer recharge. Soil conditions are very favorable for urban development. Threatened or endangered plants and animals typically found in this community include Little kestrel, Red Cocaded woodpecker, Florida panther (*Felis concolor coryi*), Florida weasel, Sherman's fox

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squirrel, Blue tailed mole skink, gopher frog, gopher tortoise, Indigo snake, short tailed snake. This community is suited for deer, turkey, especially for use as escape cover. Many songbirds inhabit this area including warblers, towhees, crested flycatchers and quail. Several varieties of native legumes furnish food (seeds) for bird life. Timber harvest and other disturbances increase wildlife food value by increasing the amount and types of herbaceous plants and by sprout production.

Freshwater Marsh & Ponds

This community occurs throughout Florida. Individual communities vary widely in size. It appears as an open expanse of grasses, sedges, and rushes, and other herbaceous plants in an area where the soil is usually saturated or covered with surface water for two or more months during the year.

Representative Soils:	Basinger, Pompano, Samsula, Tomoka
Typical Trees:	None
Typical Grasses:	Jamaica sawgrass and maidencane
Typical Herbaceous Plants:	Arrowhead, blue flag, common cattail, pickerelweed, slender spikerush, soistem bull rush and fire flag.
Typical Animals:	Hérons, egrets, bitterns, sandhill cranes, rails, limpkins, gallinules, snipe, killdeer, Florida duck, red-winged blackbirds, marsh hawk, red-shouldered hawk, swallow-tailed kite, amphiumus, dwarf salamander, Sirens, frogs, cricket frogs, bullfrog, leopard frog, mud turtle, red-bellied turtle, chicken turtle, horn snake common water snake, cottonmouth, ribbon snake, alligator, otter, raccoon, marsh rabbit, white-tailed deer and Florida waterrat.

The freshwater marshes serve as a filter system for lakes. This protects the lakes from eutrophication and provides the marsh with nutrients that are used in vegetative growth. Marshes will retain water during drought and large marshes also help slow down water flows at flood times.

Recreational use of this community may cause much disturbance. In fact, recreational vehicles, when used a great deal, will change the plant community found in the area.

The freshwater marsh community is highly endangered. Many have been destroyed or at least degraded. Drainage of this community has caused most of this damage.

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Threatened and Endangered animals include Florida sandhill crane (*Grus canadensis pratensis*), Wood stork (*Mycteria Americana*), Great white heron (*Ardea herodias occidentalis*) and Roseate spoonbill (*Ajaia ajaia*).

This community provides excellent habitat for many wetland wildlife species. It includes several endangered species. Many waterfowl and other birds use this community year-round or for wintering.

Wetland Hardwood Hammock

This ecological community is a wetland forest with an evergreen oak appearance on poorly drained soils, soils subject to constant seepage, or soils with high water tables. A luxuriant growth of vegetation with a diversity of species is found in this community. Although supporting plants found in both drier and wetter sites, this community has definite flora characteristics.

Representative Soil:	Riviera
Typical Trees:	southern sweetbay, loblolly bay, sweetgum, water oak, red maple, florida elm, red bay, laurel oak, live oak, southern magnolia and cabbage palm.
Typical Shrubs:	titi, witchhazel, waxmyrtle and common button bush
Typical Herbaceous Plants:	greenbriar, carolina jasmine, crossvine, wild grape, poison ivy Virginia creeper, royal fern, cinnamon fern, chain fern, spanish moss and partridge berry.
Typical Animals:	turkey, owls, woodpeckers, Mississippi kite, Red-shouldered hawk, numerous songbirds, deer, wild hogs, raccoons, opossums, skunk, bobcat and otter.

Wet hardwood hammocks are high in recreational value for hunting, camping, and general outing aesthetic benefits. Although watershed protection is a value served by the community, the wet soils and generally flat topography make these uses minimal. Water quality and quantity control is one of the most important benefits provided.

Endangered and threatened animals may include southern bald eagle (*Haliaeetus leucocephalus*), black bear (*Ursus Americanus*) and Florida panther (*Felis concolor coryi*).

Wet hardwood hammocks are one of the most productive and diverse wildlife habitats. This community is good habitat for wild hogs, deer, turkey, black bear, grey squirrel, woodpeckers, owls, and fur bearers. It is poor habitat for quail and dove and fair for many songbirds. It is good for reptiles and amphibians, being moist most of the year.

Many mechanisms exist for protection of natural ecological communities. Purchase of property is always the most effective means, though it is limited by available funding.

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Various state and federal grant programs exist including the State's Conservation and Recreation Lands (CARL) program. Private organizations like the Nature Conservancy, Audubon Society, Sierra Club and Trust for Public Lands have been quite successful in acquiring unique and valuable lands for conservation and preservation purposes.

Regulatory mechanisms are generally limited to preservation of wetlands. The St. Johns River Water Management District and Volusia County require review and permitting of activities which affect wetlands. Some regulatory measures can be enacted by the Town to put into place a small measure of protection. These may include large-lot zoning, cluster development, open-space zoning, buffer requirements and transfer of development rights.

Existing Commercial, Recreational and Conservation of Uses of Natural Resources

Some pine flatwood ecological communities in and around Pierson are managed for commercial production of timber. These are primarily located to the north of the Town. Upland hardwood hammocks, with their spreading canopies providing shade, are well suited for production of ferns. Fern production is the Town's principal economic base. No significant areas of land within the town are managed principally for conservation of natural ecological value.

Historical and Archeological Sites

There are no known archeological sites nor structures listed on the National Register of Historic Places within the Town of Pierson. The County in its Comprehensive plan shows an area outside of the southeastern quadrant of the Town the Town as an Archeological Sensitive Area as shown on Figure VI-6. There are 32 structures in and around the Town of Pierson that are listed on the on the Department of State, Division of Historical Resources' Master Site File, as shown on Figure VI-7. Of these 32 structures, 30 are residences, one is the former Town Hall building and one is a vacant commercial building north of Town. Tables VI-1A and VI-1B are lists of these sites.

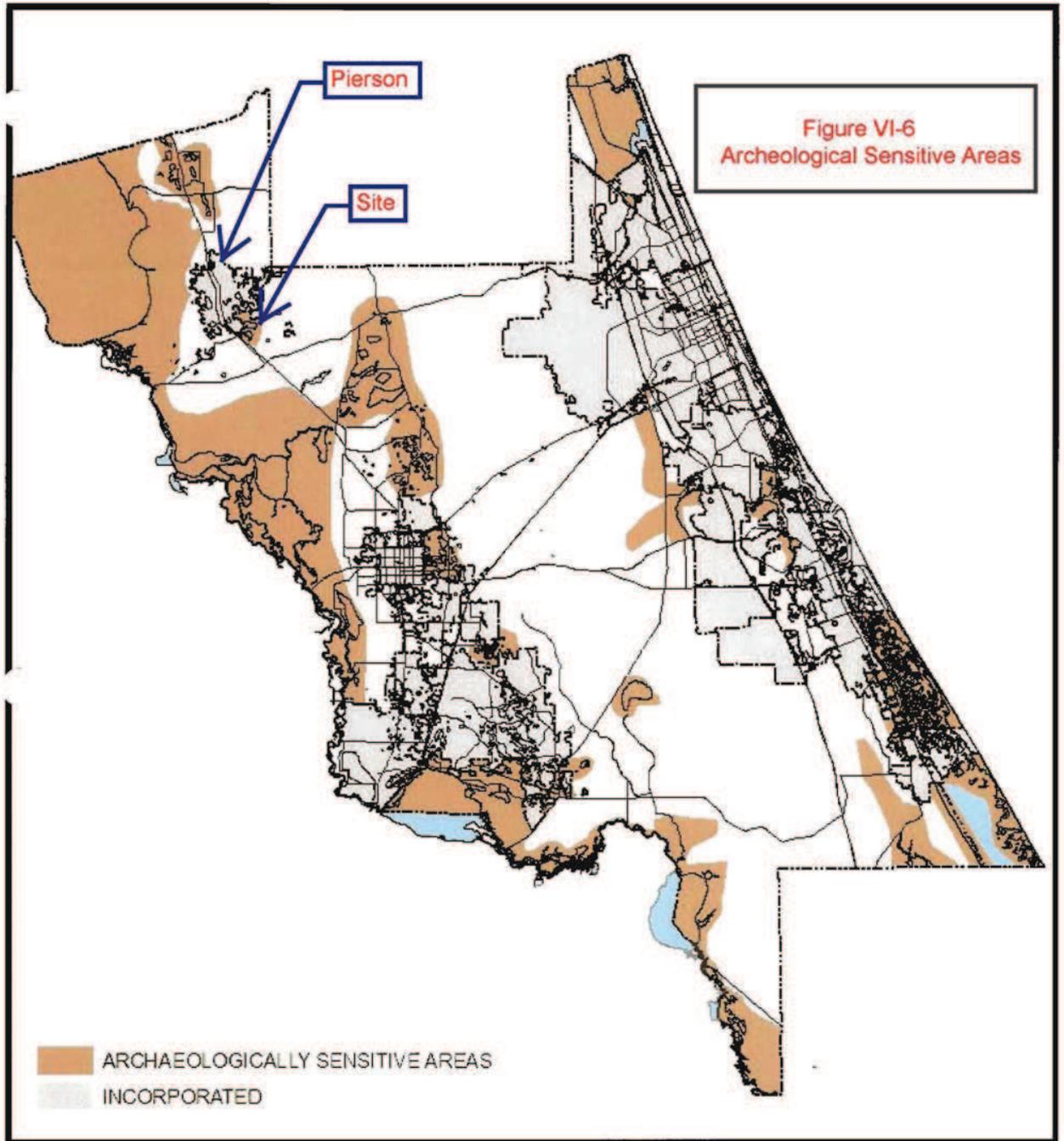


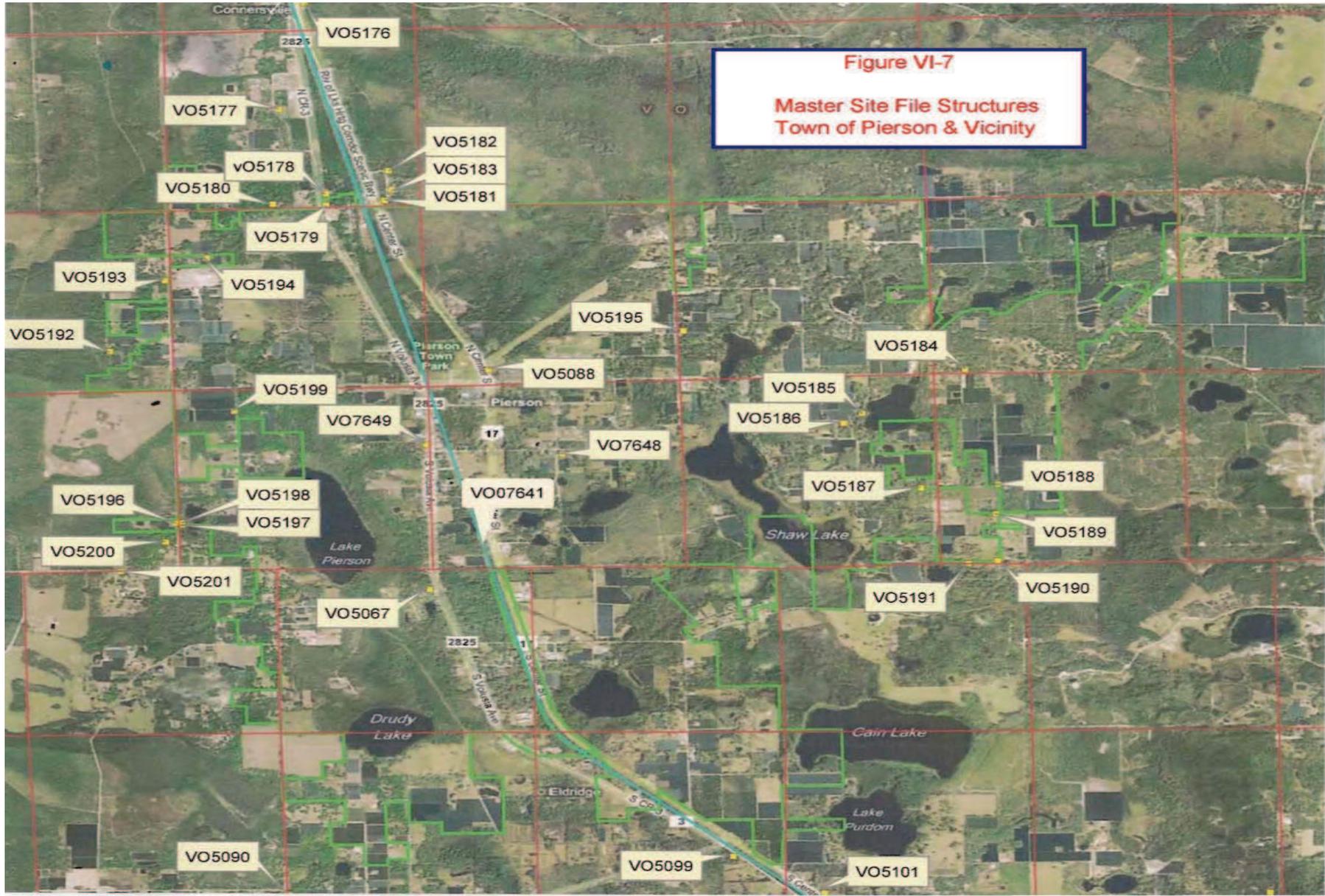
FIGURE 17-1
ARCHAEOLOGICALLY SENSITIVE AREAS
in UNINCORPORATED VOLUSIA COUNTY



PREPARED BY: VOLUSIA COUNTY GROWTH & RESOURCE MANAGEMENT DEPARTMENT

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**Table VI-1A
Master Site File
Pierson & Vicinity**

SITEID	FORMNO	T-R-S	CR	SITENAME	NRLIST	SURVEY	LOCATION	
VO05067	199204	14S/28E/9	SS	NOLAN HOUSE		3153	219 NOLAN RD, SEVILLE	Uses: RESI, Built: C1926
VO05088	199204	15S/28E/22	SS	1854 STONE RD		3153	1854 STONE RD, EMPORIA	Uses: RESI, Built: C1944
VO05179	199204	14S/28E/21	SS	705 CR 3		3153	705 CR 3, PIERSON	Uses: RESI, Built: C1929
VO05184	199204	14S/28E/25	SS	844 E WASHINGTON AVE		3153	844 E WASHINGTON AVE, PIERSON	Uses: RESI, Built: C1933
VO05185	199204	14S/28E/35	SS	680 GATCH LANE		3153	680 GATCH LANE, PIERSON	Uses: RESI, Built: C1940
VO05186	199204	14S/28E/35	SS	289 GATCH LANE		3153	289 GATCH LANE, PIERSON	Uses: RESI, Built: C1920
VO05188	199204	14S/28E/36	SS	TUCKER HOUSE		3153	846 SHAW LAKE RD, PIERSON	Uses: RESI, Built: C1933
VO05189	199204	14S/28E/36	SS	760 SHAW LAKE RD		3153	760 SHAW LAKE RD, PIERSON	Uses: RESI, Built: C1948
VO05190	199204	14S/28E/36	SS	731 SHAW LAKE RD		3153	731 SHAW LAKE RD, PIERSON	Uses: RESI, Built: C1920
VO05193	199204	14S/28E/29	SS	556 BRADDOCK RD		3153	556 BRADDOCK RD, PIERSON	Uses: RESI, Built: C1925
VO05194	199204	14S/28E/28	SS	599 BRADDOCK RD		3153	599 BRADDOCK RD, PIERSON	Uses: RESI, Built: C1931
VO05195	199204	14S/28E/26	SS	RAINWATER HOUSE		3153	405 PINE ST, PIERSON	Uses: RESI, Built: C1941
VO05196	199204	14S/28E/33	SS	BAKER, MALCOMB HOUSE		3153	675 VANNOTE RD, PIERSON	Uses: RESI, Built: C1885
VO05197	199204	14S/28E/33	SS	690 VANNOTE RD		3153	690 VANNOTE RD, PIERSON	Uses: RESI, Built: C1946
VO05198	199204	14S/28E/33	SS	672 VANNOTE RD		3153	672 VANNOTE RD, PIERSON	Uses: RESI, Built: C1937
VO05199	199204	14S/28E/33	SS	SMITH HOUSE		3153	353 VANNOTE RD, PIERSON	Uses: RESI, Built: C1929
VO07641	200506	15S/29E/17	RG	JACKSONVILLE, TAMPA, & KEY WEST RAILROAD		12938	City: BARBERVILLE	RG Type: LIN
VO07648	199301	14S/28E/34	SS	PETER PIERSON HOUSE			207 E 2ND AVE, PIERSON	Uses: RESI Built: 1910
VO07649	199409	14S/28E/34	SS	TOWN HALL			115 N VOLUSIA AVE, PIERSON	Uses: CIHL Built: 1926

19 site(s) evaluated; 19 form(s) evaluated. (1 RG, 18 SS)

Source: Dept. of State, Division of History Records & Archives, 2011

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**Table VI-1B
Master Site File
Pierson & Vicinity**

SITEID	FORMNO	T-R-S	CR	SITENAME	NRLIST	SURVEY	LOCATION	
VO05090	199204	15S/28E/11	SS	FELT FRUIT COMPANY		3153	1002 PETERSON RD, EMPORIA	Uses: RESI, RESI Built: C1910
VO05101	199204	15S/29E/7	SS	1700 US 17		3153	1700 US 17, EMPORIA	Uses: RESI, RESI Built: C1946
VO05176	199204	14S/28E/16	SS	925 US 17		3153	925 US 17, PIERSON	Uses: COMM, VACA Built: C1940
VO05177	199204	14S/28E/21	SS	820 MENTON RD		3153	820 MENTON RD, PIERSON	Uses: RESI, RESI Built: C1928
VO05178	199204	14S/28E/21	SS	717 CR 3		3153	717 CR 3, PIERSON	Uses: RESI, RESI Built: C1925
VO05180	199204	14S/28E/21	SS	296 W PALMETTO AVE		3153	296 W PALMETTO AVE, PIERSON	Uses: RESI, RESI Built: C1915
VO05181	199204	14S/28E/21	SS	704 E PALMETTO AVE		3153	704 E PALMETTO AVE, PIERSON	Uses: RELI, VACA Built: C1946
VO05182	199204	14S/28E/21	SS	753 E PALMETTO AVE		3153	753 E PALMETTO AVE, PIERSON	Uses: RESI, RESI Built: C1930
VO05183	199204	14S/28E/21	SS	713 E PALMETTO AVE		3153	713 E PALMETTO AVE, PIERSON	Uses: RESI, RESI Built: C1930
VO05187	199204	14S/28E/35	SS	952 SHAW LAKE RD		3153	952 SHAW LAKE RD, PIERSON	Uses: RESI, RESI Built: C1925
VO05191	199204	15S/29E/6	SS	O'BRIEN HOUSE		3153	560 SHAW LAKE RD, PIERSON	Uses: RESI, RESI Built: C1930
VO05192	199204	14S/28E/29	SS	450 ROBINSON LANE		3153	450 ROBINSON LANE, PIERSON	Uses: RESI, RESI Built: C1928
VO05200	199204	14S/28E/32	SS	356 VANNOTE RD		3153	356 VANNOTE RD, PIERSON	Uses: RESI, RESI Built: C1940
VO05201	199204	14S/28E/33	SS	SYKES HOUSE		3153	574 SHELL HARBOR RD, PIERSON	Uses: RESI, RESI Built: C1924

14 site(s) evaluated; 14 form(s) evaluated. (14 SS)
Print date: 4/12/2011 9:47:31 AM

Source: Dept. of State, Division of History , Records & Archives, 2011

**CHAPTER VI
CONSERVATION ELEMENT**

(Please refer to the Potable Water Sub-Element, Capital Improvements Element and Intergovernmental Coordination Element for related Goals, Objectives and Policies)

GOALS, OBJECTIVES AND POLICIES

Goal VI-1 - Conserve, protect, and restore natural resources in order to conserve and enhance vegetative communities, native habitats, wildlife diversity, and surface and groundwater quality and quantity.

Objective VI-1.1 - No land use or development that will degrade the quality of surface waters in and around Pierson shall be permitted by the Town.

Policy VI-1.1.1 - The Town shall require all new development to comply with the provisions outlined in its Unified Land Development Regulations, Article VII, Stormwater Management and Conservation, which provides that drainage from a site shall be "treated" to reduce the amount of pollutants to a level compatible with the Florida Water Quality standards in Chapter 17-3, Florida Administrative Code, before discharge into any surface water body.

Policy VI-1.1.2 - The Town shall require the preservation of natural upland vegetative buffers, a minimum of 25 feet in width, adjacent to wetland areas and surface water bodies and all other provisions as outlined in its Unified Land Development Regulations, Article VIII, Resource Protection.

Objective VI-1.2 - By 2012, the Town shall revise its Land Development Regulations to provide for the protection, enhancement and management of significant natural vegetative communities in order to maintain their ecological, aesthetic, economic and recreational values.

Policy VI-1.2.1 - The Town's Land Development Regulations shall be revised to require that an inventory of natural vegetative communities shall be provided by the applicant for all development proposals requiring site plan or plat approval. The applicant shall provide a plan for protection of species which are designated by either State or Federal agencies as endangered, threatened, or of special concern.

Policy VI-1.2.2- Land Development Regulations revisions shall include provisions to preserve the upland buffers of native vegetation; significant habitat area (including wildlife corridors); scenic vistas; areas where native vegetation is important to impede erosion, and other areas where the public interest is best served by preserving native vegetation.

Policy VI-1.2.3- Land Development Regulation revisions shall require that ecologically viable portions of natural upland plant communities including, but not limited to, rare or endangered ecosystems within proposed urban development sites, should be preserved and maintained in their original state, to the greatest extent practicable.

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Objective VI-1.3 - Maintain the existing characteristics of the groundwater aquifer, particularly with regard to the quantity and quality of water now found there.

Policy VI-1.3.1 - The Town shall continue to require new development to retain the "first inch" of rainfall on-site for eventual percolation into the groundwater aquifer.

Policy VI-1.3.2 - The Town shall promote preservation and replanting of natural vegetation in all development projects in an effort to curb the use of non-native, poorly adapted vegetation which requires excessive irrigation.

Policy VI-1.3.3 - Non-potable water use demands shall be met using water of the lowest quality supply which is both available and acceptable for the intended application. Water reuse or water reclamation programs should be used wherever economically and environmentally feasible to reduce groundwater withdrawals for water use applications which do not require potable water.

Policy VI-1.3.4 - The Town shall cooperate with the St. Johns River Water Management District and Volusia County to effectively implement within the town the emergency water conservation regulations enacted by the District and the County. In the event of a conflict the most restrictive regulations shall be implemented.

Objective VI-1.4 - Maintain or increase the current acreage of wetland vegetation located within the Town.

Policy VI-1.4.1 - No new developments shall be permitted to alter existing areas of wetlands vegetation except as allowed by the policies in the Future Land Use Element that pertain to the "Conservation" land use category and wetlands. The definition of wetlands to be used for regulatory purposes by the Town, as defined in Section 2.2, Definitions, and as referenced in Section 8.2.1, Identification of Wetlands, Article VIII, Resource Protection of the Town's Unified Land Development Regulations, shall mean lands inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do or would support, a prevalence of vegetation typically adapted for life in saturated soil conditions. The definition includes all contiguous and non-contiguous or isolated wetlands to waters, water bodies and water courses. Wetlands include, but are not limited to, swamp hammocks, hardwood hydric hammocks, freshwater marshes, bogs, sloughs, wet prairies, bay heads, riverine cypress, cypress ponds, domes and strands, riverine swamps and marshes, hydric seepage slopes and similar areas. Dominant wetland vegetation shall be determined as provided in Rule 17-3.022, Florida Administrative Code.

Policy VI-1.4.2- For development projects below Water Management District permit thresholds, the Town shall continue to enforce, and periodically update as necessary, its requirements for wetland protection as stated in Article VIII, Section 8.2 of its Land Development Regulations and solicit technical assistance, when necessary, from an environmental consultant, county, regional, state and/or federal agencies.

Policy VI-1.4.3- Land use planning and site design shall support development patterns which minimize the impact of development on wetland communities. As a

result of development, there shall be no net loss of wetlands functions or values, nor shall wetlands functions and values be degraded.

Policy VI-1.4.24 - The Town shall monitor development activity in and adjacent to wetland areas to ensure that existing local, state and federal wetland preservation requirements are strictly enforced and the permittee shall take positive steps to correct or mitigate any unnecessary degradation of water or wetland quality caused by site development as determined by St. Johns River Water Management District, the Florida Department of Environmental Protection, the Army Corps of Engineers, or the Town.

Policy VI-1.4.5- Roadway designs in or near wetland areas will provide for the capture and diversion of stormwater runoff from roadway surfaces in wetland areas to upland stormwater retention/detention ponds for treatment prior to discharge into receiving water bodies.

Policy VI-1.4.6- On-site wastewater treatment systems shall not be allowed within 75 feet landward of the upland/wetland interface or the 100-year floodplain boundary or within 120 feet of the shoreline edge, whichever is more restrictive.

Policy VI-1.4.7- No wells shall be allowed to be constructed in wetlands.

Objective VI-1.5 - By 2012, the Town shall revise its land use and development regulations to include specific provisions ensuring that development and redevelopment will not adversely affect the survival of threatened and endangered fish and wildlife. These revisions will include incorporating the following policies as requirements:

Policy VI-1.5.1 - If it is presumed that a designated species may be present on the basis of general characteristics including the number and types of plant communities, the linear amount of "edge" such as the boundaries between woods and grasslands, the presence of water, and the presence of movement corridors between habitat areas, the Town shall require applicants for development to assess the impact of development on designated species. Designated species shall include those classified, by either the Florida Fish and Wildlife Conservation Commission or the U.S. Fish and Wildlife Service, as endangered, threatened, or species of special concern, or those species actively being considered for designation. When estimating the impact of proposed development, the applicant may be required to conduct an inventory of existing wildlife and vegetation on the site.

Policy VI-1.5.2- Site development related activities shall not result in the harming, pursuit, or harassment of wildlife species classified as endangered, threatened or a species of special concern by either the State or Federal governments in contravention of applicable State or Federal laws. Should such species be determined to be residing on, or be otherwise significantly dependent upon the project site, the developer shall cease all activities which might negatively affect that individual or population and immediately notify the Florida Fish and Wildlife Conservation Commission or Florida Department of Environmental Protection, the United States Fish and Wildlife Service, and the City. Proper protection and habitat

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management, to the satisfaction of all agencies, shall be provided by the developer.

Policy VI-1.5.3- Where a site is found to be inhabited by a gopher tortoise population that meets or exceeds the Florida Fish and Wildlife Conservation Commission's threshold of "significant" gopher tortoise habitat or which comprises part of a gopher tortoise population that may, in the aggregate, meet or exceed this threshold, the property owner shall protect such habitat areas through the use of conservation easements, deed restrictions, or common open space areas. As an alternative, gopher tortoises may be relocated only in conformance with an approved gopher tortoise relocation plan.

Objective VI-1.6 - Maintain the present high level of air quality in Pierson by preventing degradation of air quality below baseline standards established by the Florida Department of Environmental Protection (FDEP) and the U.S. Environmental Protection Agency.

Policy VI-1.6.1 – No industrial or commercial business which emits air pollutants that would degrade the Town's ambient air quality will be permitted unless it they can demonstrate that all necessary air quality permits have been approved and all appropriate air pollution control devices and practices will be installed, prior to occupancy.

Policy VI-1.6.2 - The Town shall support, by Resolution, an inspection program by the Sheriff's Office to identify vehicles which fail to meet pollution control standards as mandated by Florida Statutes.

Policy VI-1.6.3- The Town shall encourage alternative modes of transportation by promoting the use of bicycles by building more bike lanes, bike paths, and bike racks, and requiring more improved pedestrian sidewalks.

Policy VI-1.6.4- New facilities housing the young, the elderly or the handicapped shall be prohibited from locating near point air pollution sources and vice versa. Playgrounds and active recreation areas shall also be located a safe distance from these sources.

Policy VI-1.6.5- Construction, excavation, and land clearing activities shall minimize the exposed ground surface area. Any area that is to be exposed for an extended time period shall be mulched or sodded.

Objective VI-1.7 - The Town shall continue to enforce its wellfield protection requirements of Article VIII, Section 8.4 of its Land Development Regulations to protect potable water wells located within the Town's jurisdiction from contamination by threatening activities, request assistance from the Water Management District to determine the actual extent of the cones of influence and revise Section 8.4 in light of new data.

Policy VI-1.7.1 - In the absence of scientific data and analysis identifying the actual extent of the "cones of influence" surrounding potable water wells, the Town adopted as a part of its Unified Land Development Regulations, Section 8.4, Well Field Protection, of Article VIII, Resource Protection that was patterned after Volusia

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County's Ordinance 90-9 (Minimum Standards for Potable Water Well Field Protection). Section 8.4 defines a "Primary Well Field Protection Zone" immediately surrounding any potable water supply well and extending a radial distance of two-hundred (200) feet. The "Primary Well Field Protection Zone" is established as a zone of exclusion, where no development will be permitted. A "Secondary Well Field protection Zone" surrounds the Primary Well Field protection Zone and extends a radial distance of eight-hundred (800) feet from the Primary Well Field protection Zone. Within the Secondary Well Filed Protection Zone, the following land uses are prohibited:

1. Landfills;
2. Facilities for the bulk storage, handling or processing of materials on the Florida Substance List;
3. Activities that require the storage, use or transportation of restricted substances, toxic or hazardous materials, agricultural chemicals, petroleum products, hazardous toxic waste, medical waste, etc.;
4. Feedlots or other commercial animal facilities;
5. Wastewater treatment plants, percolation ponds, and similar facilities;
6. Mines; and
7. Excavation of waterways or drainage facilities which intersect the water table.

The Primary and Secondary Well Field Protection Zones are shown on the Town's Official Zoning Map and this plan's Future Land Use Map.

Policy VI-1.7.2 - At such time funding becomes available, the Town shall request the assistance of the St. Johns River Water Management District to perform a scientific study to determine the actual extent of the cones of influence. When such a study is completed, the Town shall amend the Comprehensive Plan's Future Land Use Map and the Official Zoning Map to show the approximate locations of the new zones. The land uses to be allowed within these protection zones will be evaluated and revised, if necessary, based on the results of the study.

Objective VI-1.8- The Town shall enforce the provisions Section 8.5 High Recharge Areas of Land Development Regulations to ensure that land areas that are designated by the St. Johns River Water Management District as Floridan Aquifer high recharge areas are protected to the greatest extent possible subject to respecting private property rights.

Policy VI-1.8.1 - Concurrently, the Town shall also revise/update its Land Development Regulations for consistency with and support of Volusia County's Goals, Objectives and Policies of Chapter 10, Natural Groundwater and Aquifer Recharge Element, of their Comprehensive Plan, to monitor, protect and enhance the Surficial and Floridan aquifers.

Policy VI-1.8.2– When a development proposal may have a significant impact on the Floridan aquifer, the Town will consult both the Water Management District and the County for input in the development review process.

Goal VI-2- The Town shall continue to implement current programs and study and adopt new programs to minimize public and private losses and threats to public health, safety and welfare due to flood conditions and hazards.

Objective VI-2.1- Flood damage prevention shall be accomplished through restricting new development from obstructing the flow of water and increasing flood heights within a floodplain. To offset any loss of flood storage capacity, compensatory storage is required for new fill, or other obstruction, put in the floodplain by providing an at least equal volume to replace the lost flood storage volume.

Policy VI-2.1.1- The Town shall protect the natural functioning values of the floodplains to the maximum extent feasible through wetland buffer requirements, compensatory storage, conservation easements and tree protection ordinances.

Policy VI-2.1.2- The Town shall require all new development occurring within the 100-year floodplain to provide for the protection of adjacent properties.

Policy VI-2.1.3- The Town shall regulate the deposition of fill material within a floodway in order to prevent damage to the public by posing a threat to life and property in excess of that anticipated by the 100-year storm in the floodway fringe areas.

Policy VI-2.1.4- Sites for the creation of compensatory storage volume, commensurate with any flood storage volume lost as a result of development activities (including roadways) in the 100-year floodplain, shall be on the same or adjacent site or within the same hydraulically connected basin in order to provide for effective storage volume within the floodplain, but shall not be located within land areas within the jurisdictional wetland limits of regulatory agencies, except for the purpose of providing pretreated stormwater storage capacity. Special Flood Hazard Areas shall be interpreted as that portion of the site lying within the boundaries of the 100-year floodplain based on the Official Federal Emergency Management Agency Flood Insurance Study and corresponding Flood Insurance Rate Maps, FIRM's.

Policy VI-2.1.5- The Town shall ensure that fill material or other structures do not adversely obstruct the movement of floodwaters natural overland sheet flow or pose a threat to the public health, safety, and welfare.

Policy VI-2.1.6- Areas not filled within the floodplain are to be generally left in their natural state. However, such areas may be used to meet landscaping and/or retention requirements, provided that the design of development is consistent with Town codes and standards.

Objective VI-2.2- By 2012, the Town shall, in cooperation with the County, update its Land Development Regulations to incorporate a new Article XII and appropriate revisions to existing Articles and Sections that codifies implementation of the Goals, Objectives and

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Policies of this Element related to flood plains.

Policy VI-2.2.1- The Town shall continue to develop and enforce a floodplain management program that balances the public interest in regulating the use of private property against the interests of private landowners.

Policy VI-2.2.2- The Town shall continue to participate in the National Flood Insurance Program.

Policy VI-2.2.3- The Town shall periodically review its zoning regulations to ensure that the density which is permitted under each zoning category is consistent with the Town's desire to protect the natural functioning values of the floodplain and to protect the quality and quantity of surface water resources.

Policy VI-2.2.4- Floodplains whose functional values have been degraded or destroyed through human intervention should be restored, if possible, by acquisition of historic floodplain lands. Various state, regional and local land acquisition programs shall be used for this purpose.

Policy VI-2.2.5- The Town shall periodically amend its flood plain regulations to incorporate recently updated flood insurance studies and flood insurance rate maps and to further bring it into full compliance with revisions of the national flood insurance program floodplain management criteria.

Policy VI-2.2.6- All new public buildings and infrastructure shall be located outside the 100-year floodplain to the maximum extent feasible. Appropriate flood proofing measures shall be undertaken for any public buildings located within the floodplain. Any pump stations or other electrical and mechanical equipment shall be designed to be protected from physical damage by the 100-year flood. The Town shall coordinate its floodplain management programs with appropriate Federal, State, regional, and local governments.

Goal VI-3- For new development and redevelopment, apply better site design and low impact development (LID) techniques, and pursue commitments to reduce stormwater runoff volumes and peak flows, to increase groundwater recharge and to increase preservation of undisturbed areas.

Objective VI-3.1- By 2011, the Town shall amend its Land Development Regulations, LDR's, to implement Low Impact Development techniques.

Policy VI-3.1.1- LDR revisions should include integration of the source control concept which places a greater importance on managing smaller, cost-effective landscape features located on each lot rather than through costly pipe and pond stormwater management design.

Policy VI-3.1.2- Maintain or improve infiltration, frequency and volume of discharges, and groundwater recharge by placing greater emphasis on reducing pervious surfaces, functional grading, open channel sections, and the increase use of bioretentional filtration landscaped areas.

Policy VI-3.1.3- Integrate alternative stormwater management practices such as on-lot microstorage, functional landscaping, open drainage swales, reduced imperviousness, flatter grades, increased runoff travel time, and depression storage into a multifunctional site design.

Policy VI-3.1.4- Reduce the use of centralized best management practices (BMPs) such as stormwater ponds through the use of Integrated Management Practices (IMPs) which are distributed in small portions of a lot or parcel and near the source of impacts.

Policy VI-3.1.5- Amend the LDC and Construction Details to permit LID designs that can significantly reduce development costs through smart site design by:

1. Reducing impervious surfaces (roadways), curb, and gutters;
2. Decreasing the use of storm drain piping and inlet structures; and
3. Eliminating or decreasing the size of large stormwater ponds.

Goal VI-4- Preserve archeological and historic resources in and within close proximity to the Town to protect this heritage for current and future residents.

Objective VI-4.1 - The historical structures identified by the Department of State, Division of Historical Resources on their Master Site File and the potential archeological area south and east of the Town shall be protected to the greatest extent possible.

Policy VI-4.1.1 – Encourage future development and redevelopment activities in the areas surrounding the historical structures identified on the Master Site File to be similar in architectural character to ensure a reasonable degree of compatibility.

Policy VI-4.1.2 - The Town shall encourage owners of historical structures to seek inclusion of their structure in the National Register of Historic Places.

Policy VI-4.1.3 – The Town shall develop incentives to encourage adaptive reuse of historic structures in a manner that will preserve the historic value of such structures.

Policy VI-4.1.4 - With voluntary assistance from historians and archaeologists as may be available, the Town shall continue to identify and preserve significant historic structures and archeological sites.

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INTRODUCTION

This plan element addresses the requirements of the Florida Community Planning Act (CPA) in s. 163.3177(6)(e) F.S. The purpose of this Recreation and Open Space Element is to ensure that the recreational needs of present and future residents of the Town will be met. This data inventory and analysis begins with an evaluation of existing open space and recreation facilities. These are then compared to an assessment of present and future recreational preferences (demands) to determine needs.

EXISTING OPEN SPACE AND RECREATION FACILITIES

Open space and recreation facilities currently available for use by the residents of Pierson are described below. In order to more accurately identify recreational needs, each entry is classified on the basis of its function and service area.

The functional classification will be either resource-based or user-oriented. The distinction is that the primary benefit derived from a resource-based site or facility results from the natural environmental or cultural characteristics. While user-oriented sites and facilities are those designed and/or managed to provide for a more structured recreational experience like team sports, social activities, and the performing arts (whether enjoyed as a spectator or a participant). Ball fields, playgrounds, and community assembly buildings provide user-oriented recreational opportunities. Public open spaces providing access to lakes and forested lands are examples of resource-based recreational opportunities.

The service area classification, for purposes of this plan element, shall be defined as follows:

A "neighborhood" site or facility is one of interest generally to residents of a sub-area of the Town. Typically, the service area boundary for a neighborhood facility will radiate outward from the site a distance of one half mile, more or less. Facilities provided at a neighborhood park should be chosen with consideration of the needs of the service area population. These facilities might include a small playground, benches, and landscaping.

A "community" site or facility is one of interest to residents throughout the Town. Thus, the service area radius might be as much as 3 miles. Facilities appropriate for a community park include baseball fields, soccer fields, basketball courts, tennis courts, a large playground, picnic shelters, benches, landscaping and a restroom.

Facilities and sites that are likely to draw interest from beyond the Town, and maybe even from beyond Volusia County, are designated as "regional". Often, regional parks are resource-based parks.

Some facilities and sites, because of their unique characteristics, do not lend themselves to this classification. They are designated "special" facilities or sites.

Table VII-1 lists open space and recreation facilities commonly used by the town's residents, and summarize the characteristics of each. A more detailed account is given below. Figure VII-1

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shows the geographic distribution of open space and recreation facilities within and near Pierson. The service area radius of each facility is also shown.

Washington Street Community Park - This 37.5 acre area, located on the north side of Washington Street between the railway and S.R. 17, exhibits the characteristics of a community park with facilities that serve the northwest Volusia County region. Existing improvements include 7 baseball fields (3 are lighted), an approximate 1.6 acre tot lot with playground equipment, a walking/jogging path, a lighted rodeo arena, and a community assembly building with kitchen. The property is owned by the Town. The rodeo arena is leased to the Pierson Lions Club on a twenty (20) year lease which expires in 2014. This arrangement with the Lions Club has been satisfactory to the Town, and has provided residents of Pierson and the surrounding areas with a unique recreational opportunity

Lake Pierson Municipal Park – Located in the southeast corner of Lake Pierson between CR 3 and North Avenue, this 35 acre site was a gift to the Town from Dr. Steven E. Jordan, with the stipulation that the land be used for recreational purposes only. The Town has developed approximately 11 acres of the site as a community park and the remaining 24 acres were left in their natural state as an open space. The facility has the following facilities: a .1 acre tot lot with playground equipment; a basketball court; a tennis court; a volleyball court; two pavilions; and a nature trail.

Nixon Municipal Park – Located in the southeast corner of the intersection of Palmetto Avenue and County Road 3, this 4.1 acre parcel has an open multipurpose field and an approximate one acre tot lot with playground equipment.

Pierson-Taylor Middle/Sr. High School - located on the north side of Washington Street just east of S.R. 17, this site includes 2 baseball fields (1 lighted), 1 lighted football field, a 1/4 mile track, 2 tennis courts and 2 racquetball/handball courts. Currently, these facilities are available only to students during regular school hours and to students in athletic programs after regular school hours.

Pierson Elementary School - The elementary school is located on the south side of Washington Street, across from the City's community center. It includes only 2 basketball courts and a very limited amount of open play area. Like the high school facilities, these are generally not available for use after regular school hours.

Atlantic Ocean Beach - No other recreation site in Volusia County is as popular as the beach. Nearly 50 miles of Atlantic Ocean beach lie within Volusia County. The County has regulatory and management responsibility for most of the beach as a result of a county-wide voter referendum. Current regulations permit a continuation of the long-practiced custom of driving motor vehicles on the beach, primarily to ensure accessibility to everyone. The County assesses a beach toll to access to the beach via a motor vehicle

DeLeon Springs State Park- Purchased by the State, this formerly privately owned facility has long been a popular recreation spot for residents throughout the county. It is, of course, a resource-based park with a focus on swimming and enjoyment of the rich and diverse flora and fauna. DeLeon Springs is located approximately 7 miles south of Pierson on S.R. 17.

Lake George Forest & Wildlife Management Area - Lake George is located approximately 2 miles west of Pierson on the border of Lake, Volusia and Putnam counties. It encompasses over 36,000 acres of water within Volusia County alone. Presently, the only public access within Volusia County is a boat ramp located at Nine Mile Point. The property, 8,032 acres, was acquired by St. Johns River Water Management District and Volusia County. Previously, the land was owned by the Union Camp Paper Company who used it for timber production. This area is relatively undisturbed, and represents an excellent opportunity for resource-based recreation consistent with sound resource management practices. There are 3,500 acres under sustainable forest resource management with the goal of ecosystem enhancement. This conservation area is a part of a 35,380 acre Type I Wildlife Management Area which includes Lake George Forest, Heart Island and Lake George Conservation Area. Hunting and fishing is allowed in season. Camping is allowed only in designated areas. Trails are open to hiking, horseback riding and bicycling.¹

Lake Woodruff National Wildlife Refuge - Located in DeLeon Springs, the 21,574 acre wildlife refuge was established in 1964 and is managed by the U.S. Fish & Wildlife Service. The refuge surrounds the 2,200 acre Lake Woodruff, 1,880 acre Lake Dexter and numerous other waterways including the St. John River which forms the western boundary. The refuge is included in of ecologically sensate lands along the St. Johns River from Wekiva River to Lake George. The refuge provides wildlife-dependent recreation and environmental education for the public. The refuge provides resource-based recreation in the forms of wildlife observation, hiking trails, bicycling, fishing and hunting (archery and primitive gun).²

Miscellaneous Private Facilities - None.

RECREATIONAL DEMAND AND NEEDS ASSESSMENT

For the purposes of this element, recreational "demand" is a measure of what recreational facilities and services the Town's people want (and are willing to pay for). Recreational "need" is the difference between this demand and the existing facilities and services.

Recreational Demand

Recreational demand is an abstract concept, not easily measured. Attempts have been made by many recreation specialists and interest groups to develop standards which, when applied to one population or another, would yield a reasonable measure of recreational demand. Some of these efforts have gained wide spread recognition and acceptance. However, the Town Council believes that no general standards will adequately reflect the particular characteristics of the Town's people, their preferences, and the unique recreational opportunities found here.

Several key factors believed to influence recreational demand in Pierson are as follows:

Population Size - The Town's current resident population of about 2,868 persons is expected to reach nearly 4,693 by 2025. With a sixty-four percent increase in population, it

¹ Lake George Forest and Wildlife Management Area Web Site, sponsored by Volusia County, Florida

² Lake Woodruff National Wildlife Refuge Web Site, sponsored by the U.S. Fish & Wildlife Service

is reasonable to expect a substantial increase in recreational demand.

Income Characteristics - Participation in organized outdoor recreational activities generally decreases when family's income decreases. The median household income of Pierson's residents (2009) \$31,100, ranks considerably below that for the County, \$41,390, and the State, \$44,755;³ and this relationship will likely continue. Thus, the Town's residents should be expected to participate less than average.

Age Characteristics - Recreational preferences vary with age in response to changing physical, mental and social characteristics. The 0-24 year age group usually accounts for the greatest demand on facilities for team field sports (e.g., baseball and soccer). This group comprises forty percent (40%) of the Town's resident population. The "family-age" group, 25-59 years of age, has the least amount of time due to job and family commitments. About fifty percent (50%) of the Town's residents fall into this group. The remaining, approximately nine percent (9%) are in the 60-85+ age group, sometimes referred to as "empty nesters" and persons of retirement age who have ample time for recreation, have historically preferred passive and group leisure activities, although, recent surveys indicate that this age group, which includes aging "Baby Boomers", is increasingly pursuing more active recreational activities.⁴

Climate - The area's moderate climate encourages outdoor activity the year around, and is a primary reason for the popularity of Volusia County, in general, among visitors and tourists. Most recreational activities do not exhibit extreme peaks as might be the case in the North where extreme seasonal weather patterns preclude year around participation in some recreational pursuits.

With consideration of these key factors, the site standards presented in Table VII-2 and the facility standards in Table VII-3 were formulated specifically for Pierson. The State of Florida Division of Recreation and Parks, in its publication "Outdoor Recreation in Florida-2000", established a set of reference standards which provide a suitable basis for planning. The standards were developed based on preferences of both tourists and Florida residents. The standards used by the Town of Pierson are based on state standards, in part and on the Town's own standards tailored to the key factors listed above and the resultant needs and preferences. Only user-oriented recreation sites and facilities are addressed by these standards. Regional, resource-based facilities are listed in Table VII-1. From this list it is apparent that County, State and Federal governments have taken the lead in providing resource-based open space and recreation facilities. These resource-based open space and recreation facilities serve to preserve and conserve natural and/or cultural elements (e.g. wildlife habitats, springs, historic and archaeological sites, etc.) for the long-term benefit of the region. The Town's responsibility with respect to the provision of resource-based open space and recreation facilities shall be to continue to support the County, State and Federal governments in their efforts to satisfy needs identified from the regional perspective.

³ Bureau of Census, Small Area Income & Poverty Estimates, last update, 12/2010

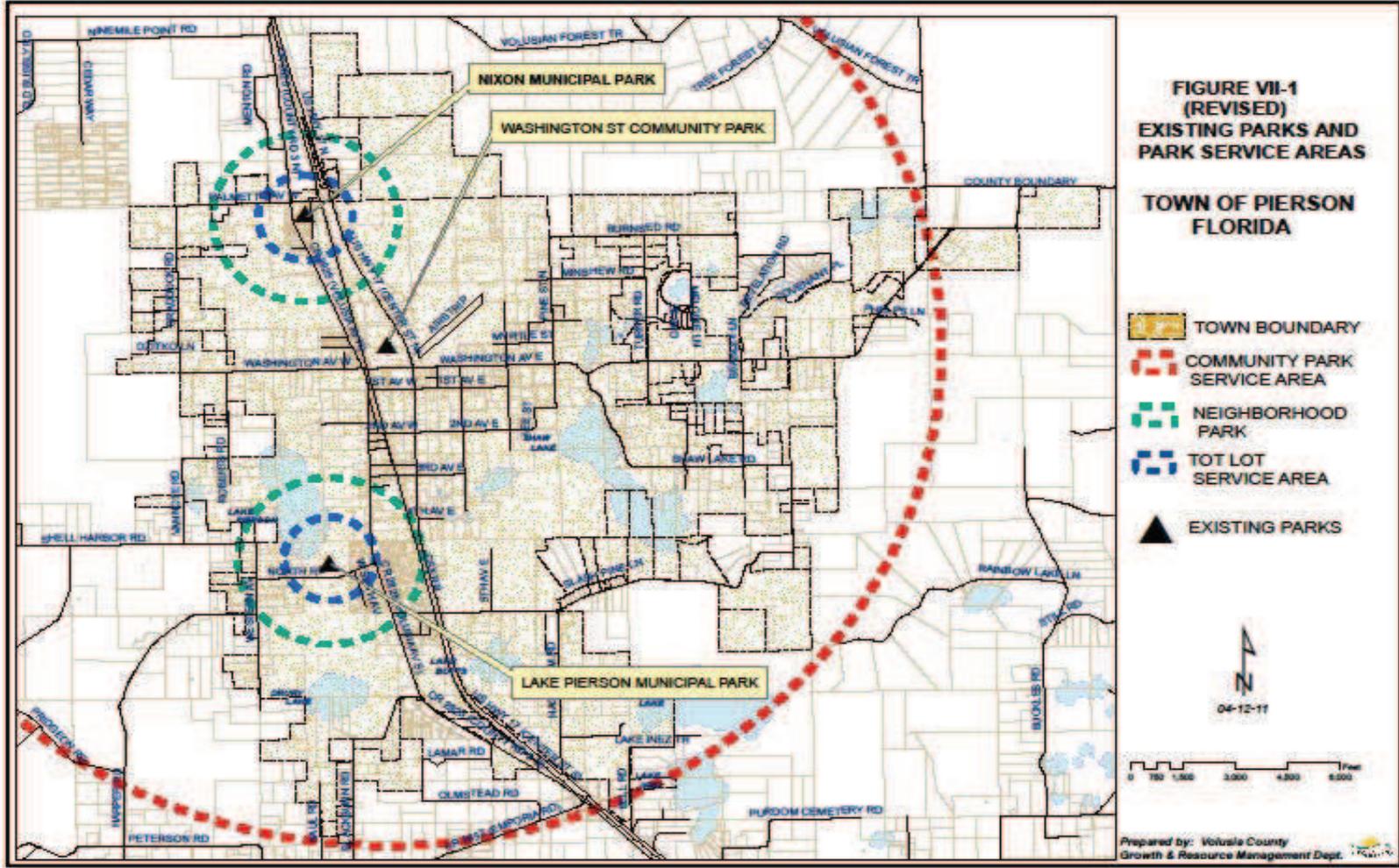
⁴ Senior Journal.com, Del Webb Survey, April 13, 2007

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Table VII-1
INVENTORY OF RECREATION SITES AND FACILITIES
Town of Pierson, Florida

<u>Site name</u>	<u>Ownership</u>	<u>Function</u>	<u>Service Area</u>	<u>Size (acres)</u>	<u>Improvements</u>	<u>Comments</u>
Washington Street Park	Town of Pierson	user-based recreation	community	37.5	3 lighted baseball field 4 un-lighted baseball fields 1 lighted rodeo arena 1 community assembly building 1 tot lot with playground equipment	The rodeo arena is leased to the Lions Club of Pierson
Lake Pierson Municipal Park	Town of Pierson	user-based recreation	neighborhood	35*	Tot lot w/playground equipment 1 basketball court 1 tennis court 1 volleyball court 2 pavilions & a nature trail	*Only approximately 11 acres have been developed as a park
Nixon Municipal Park	Town of Pierson	user-based recreation	neighborhood	4.1	Open multipurpose field Tot lot w/playground equipment	
Pierson-Taylor Middle/High School	School Board	user-based recreation	community	N/A	2 baseball fields (1 lighted) 1 lighted football/track field 2 tennis courts 2 handball/racquetball courts	Facilities are not open to the general public
Pierson Elementary School	School Board	user-based recreation	neighborhood	N/A	2 basketball courts Small, open play area	Facilities are not open to the general public
Deleon Springs State Park	State of Florida	resource-based recreation	regional	611	Picnic facilities, swimming area, nature trail, restaurant & restrooms	
Lake George Forest and Wildlife Management Area	SJRWMD & Volusia County	resource-based recreation	regional	8,032	boat ramp, nature trails, camping, hunting, fishing and restrooms	Part of a larger 35,380 acre wildlife mgmt. area
Lake Woodruff National Wildlife Refuge	U.S. Fish & Wildlife Service	resource-based recreation	regional	21,574	Wildlife observation, hiking trails, bicycling, fishing & hunting	

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TABLE VII-2
STANDARDS FOR ACTIVITY-ORIENTED RECREATION SITES
Town of Pierson, Florida

	<u>Location</u>	<u>Acres/1,000 Population</u>	<u>Min. Size Acres</u>	<u>Service Area Radius (miles)</u>	<u>Population Served</u>
Equipped Tot Lot	Residential setting Or adjacent to a school	0.5 acres	0.25 acres	up to 0.25 miles	up to 2,500
Neighborhood Park	Neighborhood area adjacent to elementary school, when feasible	1.9 acres	1.9 acres	up to 0.5 miles	up to 5,000
Community Park	Designed to serve residents of a group of neighborhoods. Should be located Adjacent to a Jr. or Sr. High School when feasible	2 acres	20 acres	up to 3 miles	up to 5,000

Source: Outdoor Recreation in Florida, Florida's Statewide Outdoor Recreation Plan, Florida Department of Environmental Protection

TABLE VII-3
STANDARDS FOR ACTIVITY-ORIENTED RECREATION FACILITIES
Town of Pierson, Florida

<u>Activity</u>	<u>Facility</u>	<u>Minimum Population Served Level of Service Standard</u>
Tennis	Tennis Court	1 court/10,000
Baseball/Softball	Baseball Field	1 Field/10,000
Football/Soccer	Multipurpose Field	1 Field/25,000
Handball/Racquetball	Handball Court	1 Court/20,000
Basketball	Basketball Court	1 Court/20,000
Playground Activity	Children's Playground Equip.	1,000

Source: Outdoor Recreation in Florida, Florida's Statewide Outdoor Recreation Plan, Florida Department of Environmental Protection

Recreational Needs

Table VII-4 shows the difference between recreational demand and the existing supply of user oriented recreational sites, hereafter expressed as "need". Any need shown would normally indicate the Town does not meet level of service for that planning period. As indicated in the table, the Town's existing acreage devoted to tot lots, neighborhood parks and community parks exceeds projected demand through the year 2025 and beyond.

Table VII-5 compares the existing facilities within parks with current and projected demand through the year 2025 to arrive at an assessment of need for recreational facilities. The Table does not indicate a need for the facilities listed throughout the planning period.

Spatial Distribution of Parks

In addition to the assessment of need for additional acreage, the Town identified spatial needs. These are represented as geographic areas of the Town for which distances to existing recreation and open space are so great as to discourage the residents of those areas from using the sites. Figure VII-I shows the generalized service areas for each of the available recreation and open space areas. These service area boundaries are based on the suggested service area standards presented in Table VII-2. It can be seen there that virtually all of the area within the town lies within a 3 mile radius of Washington Street Park. Thus, all of the town's residents are within the optimum service area of the community park. The two neighborhood parks, Lake Pierson Municipal Park and Nixon Municipal Park are located in southwest and northwest Pierson, respectively and considering that Washington Street Community Park has facilities common to a neighborhood park, the .5 mile radius would be also be applicable. Considering existing facilities, and unless the Town receives another land donation and/or a grant to acquire/develop a new neighborhood park, it would not be financially feasible for the Town to develop an additional neighborhood park within the planning period. What seems to be apparent from a spatial perspective is the possible need for a tot lot with playground equipment in the eastern part of the Town.

It is essential to note that the service area radii standards are intended only as a guide for use by the Town in deciding where to locate new recreation and open space sites. These standards can be used to evaluate the need for additional facilities, particularly tot lots, as a part of the development review process.

OPPORTUNITIES AND CONSTRAINTS

Table VII-4 indicates that by the standards referenced, that the Town exceeds existing and projected needs for acreage devoted to tot lots, neighborhood parks and community parks. Per Table VII-5, above, it appears that the Town, currently and through the year 2025 exceeds the standards for all activity-oriented recreation facilities. Pierson's parks are used by many residents of the surrounding unincorporated areas. In past years, the County maintained the ball fields at Washington Street Park but turned the maintenance over to the Town in 2010. Perhaps the County should reconsider its position in light the benefits to the residents the facility serves who reside outside of the Town' corporate limits. Perhaps the County and the Town could both benefit by developing an overall parks and recreation program for a broad service area. Economies of scale could result in major savings for facility development,

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maintenance and program operation. This type of coordination could also result in a greater diversity of recreational opportunities for residents of Pierson and the unincorporated area, alike.

**TABLE VII-4
DEMAND⁵ AND NEED, IN ACRES, FOR ACTIVITY-ORIENTED RECREATION SITES
2010, 2015 AND 2025⁶
Town of Pierson, Florida**

<u>Site</u>	<u>Existing</u>	<u>2010</u>		<u>2015</u>		<u>2025</u>	
		<u>Demand</u>	<u>Need</u>	<u>Demand</u>	<u>Need</u>	<u>Demand</u>	<u>Need</u>
Equipped Tot Lot	2.7*	1.4	0	1.6	0	2.3	0
Neighborhood Park	15	5.4	0	6.2	0	8.9	0
Community Park	37.5	5.7	0	6.49	0	9.4	0

Notes: *Approximate combined tot lot acreage in Washington Street, Lake Pierson Municipal Park and Nixon Municipal park

**TABLE VII-5
DEMAND⁵ AND NEED FOR ACTIVITY-ORIENTED RECREATION FACILITIES
2010, 2015 AND 2025⁶
Town of Pierson, Florida**

Facility	Existing	<u>2010</u>		<u>2015</u>		<u>2025</u>	
		<u>Demand</u>	<u>Need</u>	<u>Demand</u>	<u>Need</u>	<u>Demand</u>	<u>Need</u>
Tennis Courts	1	0	0	0	0	0	0
Baseball Fields	3	0	0	0	0	0	0
Football/Soccer Fields	0	0	0	0	0	0	0
Handball/Racquet - ball Courts	0	0	0	0	0	0	0
Basketball Courts	1	0	0	0	0	0	0

⁵ Source: Outdoor Recreation in Florida, Florida's Statewide Outdoor Recreation Plan, Florida Department of Environmental Protection

⁶ Based on the Future land Use Element's 2010, 2015 & 2025 Population projections of 2,368, 3,245 & 4,693, respectively

⁶ Based on the Future land Use Element's 2010, 2015 & 2025 Population projections of 2,368, 3,245 & 4,693, respectively

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Per Table VII-1, the facilities at both Pierson Elementary and Pierson-Taylor Middle/High School are not open to the general public. The Town may want to consider developing joint-use agreements with the Volusia County School Board so that residents could utilize these facilities when school is not in session. Finally, the Town, through its development review process could provide incentives to developers to construct neighborhood parks and/or tot lots, depending upon the scale of the development, as a part of their project.

**CHAPTER VII
RECREATION AND OPEN SPACE ELEMENT**

GOALS, OBJECTIVES AND POLICIES

Goal 1 - Provide a high level of active and passive recreational opportunities for the residents of Pierson.

Objective 1.1 - Maintain a system of recreation and open space that meets or exceeds the adopted level of service standards.

Policy 1.1.1 - The Town shall continue to require that new development meets level of service (LOS) standards for activity-oriented recreation sites, per Section 4.4.6 of its Land Development Regulations and update them in accordance with new Table VII-2 of the Data, Inventory and Analysis following adoption of its EAR Based Amendments in 2012.

Policy 1.1.2 - No development shall be permitted by the Town if the resulting impact will exceed the capacity of the existing open space and recreation facilities.

Policy 1.1.3 - The Town shall maintain and expand existing Town-owned open space and recreational facilities through proper management techniques funded from the Town's operating budget and other available sources.

Objective 1.2 - The Town shall seek funding from all available sources to-acquire land and develop new recreational facilities.

Policy 1.2.1 - Depending on the availability of funding, the Town-shall apply for grants under the Florida Recreation Development Assistance Program, FRDAP, for the purpose of funding the acquisition and development of new recreation and open space facilities.

Policy 1.2.2 - Beginning in the current fiscal year, the Town shall establish a multi-year program for funding anticipated operational and maintenance costs in order to ensure that the site and facilities provide long, and satisfying service to all users.

Policy 1.2.3 – The Town will utilize all available funding sources to expand existing and provide new recreation and open space facilities, those funding sources include but are not limited to: Florida Forever Fund; Volusia County Environmental, Cultural, Historic and Outdoor Recreation (ECHO) Fund; the Volusia County Joint Participation Fund; user fees and developer contributions in lieu of land and/or facility development on site.

Objective 1.3 - Beginning in the current fiscal year, the Town shall begin negotiations to establish interlocal agreements with Volusia County, the Volusia County School Board, the Water Management District other public agencies and the private sector, as may be appropriate, to further develop recreational opportunities for Pierson residents using existing recreation areas and facilities and unused lands owned by such entities.

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Policy 1.3.1 - Maximum use of existing recreation areas and facilities shall be encouraged.

Policy 1.3.2 - Cooperative arrangements between the City and other public or private entities for purchase, development, management and/or maintenance of recreation areas and facilities shall be encouraged when such arrangements will provide an efficient, economical means of meeting the recreational needs of Pierson residents.

Policy 1.3.3 – Following adoption of its EAR based amendments, the Town shall investigate the feasibility of utilizing incentives for the development of recreation and open space facilities within projects that are of such a scale where incentives are feasible.

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CHAPTER VIII INTERGOVERNMENTAL COORDINATION ELEMENT DATA INVENTORY
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**CHAPTER VIII
INTERGOVERNMENTAL COORDINATION
DATA INVENTORY & ANALYSIS**

INTRODUCTION

The Intergovernmental Coordination Element of Pierson's Comprehensive Plan is intended to meet the requirements of the Florida Community Planning Act (CPA) in s.163.3177(6)(h) F.S. This element will identify the local, regional and state agencies with which coordination is required, assess the effectiveness of current coordination mechanisms, and establish a plan for continuing and Improving Pierson's intergovernmental relationships.

This element is presented in three sections that inventory the governments and agencies which have a relationship with the Town, assess the effectiveness of this relation, and provide goals, objectives and policies framework. The three sections are as follows:

1. The *Inventory of Existing Conditions* identifies each agency or government with which the Town must coordinate, describes the nature of the relationship and identifies the Town office primarily responsible for coordination.
2. The *Issues and Opportunities* section evaluates the effectiveness of the current coordination mechanisms, identifies areas needing improved coordination and notes available opportunities for intergovernmental action.
3. The *Goals, Objectives and Policies* provide the formal framework on which the Town will act to implement the plan.

INVENTORY OF EXISTING CONDITIONS

In evaluating the intergovernmental activities of a community such as Pierson, it must be remembered that the Town is small with a small full-time staff. Many decisions which in larger cities might be made by staff are made by the Town Council in Pierson. The Town Clerk serves as the central point of contact for the Town Council, and as such becomes the focus of nearly all intergovernmental coordination efforts. The second major factor concerning the Town's intergovernmental coordination activities is its geographical location as an isolated community in the northwestern part of Volusia County. This geographical circumstance limits the need and opportunities for the Town to actively coordinate with local governments other than Volusia County.

With this background in mind, this inventory identifies the governments and agencies with which Pierson must work in order to implement its comprehensive plan. These governments and agencies have been divided into four groups as follows:

1. Local Governments
2. Local Public and Quasi-Public Agencies

3. Regional Agencies
4. State and Federal Agencies

Local governments and agencies will typically have a higher level of daily impact on a community because of their geographic relationship and that some local services are provided by these governments. In Pierson's case there are some regional and federal agencies which are very important to local activities. Table VIII-I summarizes the following discussion of coordination mechanisms.

Local Governments

As noted earlier Volusia County is the one local government which has a continuing daily impact on Pierson. Coordination with Volusia County is required to manage the delivery of some important local services and to provide the Town a means of influencing the regulatory decisions made by the County. Specific points of contact are as follows:

1. *Road System Construction and Maintenance.* There is only one County Road (C.R. 3) in the Town, but the County does provide support service by grading dirt roads located within the Town. This grading is done as part of an annual agreement approved by the Town Council in which funds are provided for this service.

The Town also collects and benefits from the Volusia County traffic impact fee. Pierson is a member of the Zone 4 Impact Fee Advisory Committee which makes recommendations to the County Council on how these funds are to be spent. As Zone 4 generates the least volume, there are relatively few projects undertaken in this zone, and most of these projects have been located in the southern portion of the zone nearer to Deland. The Town Clerk has been appointed as the local representative to this committee.

2. *Health Department.* In Volusia County, the health department is responsible for all septic approvals. As Pierson has no central sewer system, coordination with the health department is important. To ensure compliance with health department rules on septic tank location and use, the Town requires that a septic tank permit be obtained prior to construction. A final inspection report stating approval of the septic tank by the health department is required before the structure is approved for occupancy.

3. *Minimum Performance Standards for Development.* Using its broad powers for environmental regulation, Volusia County has enacted a series of minimum performance standards. Each municipality must adopt local regulations which implement or exceed these standards. If no local action is taken, the county standards become effective. These regulations affect items such as stormwater management, tree protection, wetlands protection and potable water well field protection. These performance standards developed by the County have been adopted by the Town as Article VIII, Resource Protection, of the Town's Land Development Regulations. Considering the Town's size and limited staff, the Town may contract with a consultant and/or the County to review projects for consistency with these performance standards.

4. *Community Development Block Grant Program.* Since the inception of Volusia County's Urban County CDBG program, Pierson has been a participating government. This program has been very important in providing housing assistance in the form of rehabilitation of substandard housing and the demolition of dilapidated housing units. The program also provides access to Section 8 housing assistance. The Town Council approves the annual program and the Town Clerk is the coordinating agent.

5. *Solid Waste Disposal.* Volusia County is the operating agency for the landfill used by Pierson's solid waste collection company for disposal. Volusia County has also been the lead agency in developing a recycling program in accordance with state regulations and provides recycling collection at the County's fire station in Pierson. The Town Clerk has been the primary point of contact with the county on these items.

6. *Emergency Service.* Volusia County provides a variety of emergency services including police, fire/rescue, emergency management and 911 system maintenance. The Town Clerk provides Volusia County the information necessary to maintain the 911 system.

7. *Land Use Compatibility.* Volusia County, the only adjacent local government, requires coordination of land use and zoning activity. These decisions are made locally by the Town Council which is responsible for coordination with County staff. County staff prepared most of the maps contained within this Plan and has recently updated the Town's zoning and future land use maps. The Town will need to enter into an agreement with the County to update these maps in the future as needed.

Local Public and Quasi-Public Agencies

Eight (8) public and quasi-public agencies have been identified as having a service or regulatory impact within the Town. These bodies include independent districts, advisory and planning commissions and public service providers. Each of these agencies is discussed below:

1. ***Volusia County School Board.*** Pierson contains an elementary school and middle/senior high school serving the northwest region of the county. In addition to providing for the formal educational needs of Pierson area youths, these facilities have been an important part of local community life. There has been no formal joint use agreement prepared which would provide for items such as recreational use of local facilities. Per the Public Schools Facilities Element of this Plan, the Town has entered into an interlocal agreement with the School Board that provides for a uniform concurrency management process and proportionate share methodology to ensure that school facilities are in place to meet the needs of existing and proposed development. The Town sends planning commission agendas and maintains communication with the School Board in accordance with the interlocal agreement. The Town Council appoints a representative to maintain intergovernmental coordination with the School Board.

2. ***Volusia Growth Management Commission.*** The Growth Management Commission, VGMC, was established in 1987 by amendment to the County Charter. The Commission is responsible for reviewing all comprehensive plans and plan amendments. The

TOWN OF PIERSON COMPREHENSIVE PLAN
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**TABLE VIII-1
EXISTING INTERGOVERNMENTAL COORDINATION MECHANISMS
TOWN OF PIERSON, FLORIDA**

AGENCY/OFFICE	NATURE OF RELATIONSHIP	LOCAL CONTACT	MECHANISM*
<u>Volusia County</u>			
Public Works Dept.	Road Maintenance	Town Clerk	4
	Solid Waste Disposal	Town Clerk	4
	Road Construction	Town Clerk	4
Development Regulation	Min. Environmental Standards	Town Clerk	4, 5
Community Services	CBDG Program	Town Clerk	3
Emergency Mgmt.	Disaster Preparedness	Town Clerk	5
Planning Department	Plan Coordination/ Zoning	Town Clerk	4, 6
	Amendments/Mapping		
Health Department	Septic Tanks/Public Health		
Sheriff/Fire Services	Police & Fire/Rescue	Town Clerk	1, 3
<u>Volusia County School Board</u>	Concurrency	Town Clerk	2, 5, 7
<u>Volusia Growth Mgmt. Comm.</u>	Plan Coordination	Council Appointee	1
<u>Volusia Council of Governments</u>	Plan Coordination/Assistance	Council Member	7
<u>Volusia TPO</u>	Transportation Planning/Funding	Council Member	7
<u>Mosquito Control District</u>	Mosquito Control/Drainage	Town Clerk	3
<u>Public Utilities</u>			
Progress Energy	Electricity	Town Clerk	3
Southern Bell	Telephone Service	Town Clerk	3
Florida Cable TV	Cable TV	Town Clerk	3
<u>East Central FL RPC</u>	Planning Assistance/Coordination	Town Clerk	2, 6
<u>St. Johns River Wtr. Mgmt. Dist.</u>	Water Resource Planning/Permitting	Town Clerk	1
<u>FL Dept. of Community Affairs</u>	Planning Assistance	Town Clerk	1, 2
<u>FL Dept. of Environmental Reg.</u>	Regulation of Potable Water System	Town Clerk	1
<u>FL Fish & Wildlife Cons. Comm.</u>	Fish & Wildlife management/licensing	Town Clerk	1
<u>FL Dept. of Health</u>	Regulation & Enforcement	Town Clerk	1

***COORDINATION MECHANISMS:**

- | | |
|--|-------------------------|
| 1. Regulation/Enforcement | 7. Interlocal Agreement |
| 2. Formal Reporting of data, program status, or activities | |
| 3. Binding Agreement | |
| 4. Informal meetings or correspondence | |
| 5. Committee or Advisory Board | |
| 6. Information Exchange | |

Commission certifies that these plans and amendments are consistent with the plans of adjacent jurisdictions. VGMC membership consists of one (1) voting member appointed by each municipality and five (5) voting members from unincorporated Volusia County. Each voting member has a weighted vote based on the population of the municipality/county they represent. Non-voting members include the Volusia County School Board, the SJRWMD and the Volusia County Development Corporation. With current pending legislation that will significantly reduce FDCA's role in plan and plan amendment review, the VGMC will probably play an even more important role in coordinating planning in the County.

3. Volusia Council of Governments. The VCOG is an area-wide planning organization composed of the County and its various cities. The VCOG attempts to serve as a forum for common action by member governments on a variety of issues. The Town has appointed a Council member to serve on the VCOG.

4. Mosquito Control District. The Mosquito Control District is a special taxing district which has as its aim the control of mosquito populations. As part of this function the district does maintain some ditch systems. This district has been absorbed into the county government and coordination is done through regular county channels.

5. Volusia Transportation Planning Organization (VTPO)¹. Each urbanized area in the United States with a population of 50,000 or more is required by the federal government to have a metropolitan transportation planning organization. MPO's are responsible for the continuing, cooperative and comprehensive transportation planning process for their respective urbanized areas. This coordination is intended to result in the development of transportation plans and programs consistent with the comprehensive development plans of local governments within the urbanized area. The TPO's Board is made up of an elected representative from each local government including the County. The Florida Department of Transportation (FDOT) and the Volusia County School Board are represented as non-voting Board members.

6. Public Services. A variety of services are provided to Town residents by privately owned companies. These companies include Progress Energy (electricity), ~~Southern Bell~~ AT&T (telephone), and Florida Cable TV. Coordination with these companies is required because they often share rights-of-way with the Town. The Town has a Franchise agreement with each company, which governs the procedures they must follow for operation in the Town.

Regional Agencies

There are two regional agencies which have been identified as requiring coordination with local plans and regulations. These agencies are the East Central Florida Regional Planning Council and the St. Johns River Water management District the role of each of these agencies is reviewed below:

¹The Volusia Metropolitan Planning organization changed its name to the Volusia Transportation Planning Organization in June, 2010. Federal law still refers to the term Metropolitan Planning Organization.

1. East Central Florida Regional Planning Council (ECFRPC). The East Central Florida Regional Planning Council (ECFRPC) is an association of local governments serving six (6) counties: Brevard, Lake, Orange, Osceola, Seminole, and Volusia. The ECFRPC has a 31-member governing board. The ECFRPC takes a leadership role in representing identified regional resources and interests through a strategic planning program; develops and maintains a regional data system; provides coordination and assistance to local governments at all levels; develops a shared vision of the future; and coordinates the region's resources and energies to achieve common goals.

Pursuant to § 186.509, Florida Statutes, ECFRPC is to establish by rule a dispute resolution process to reconcile differences on planning and Growth management issues between local governments, regional agencies and private interests. The dispute resolution process shall, within a reasonable set of timeframes, provide for: voluntary meetings among the disputing parties; if those meetings fail to resolve the dispute, then on initiation of mandatory mediation or a similar process; and if that process fails, then an initiation of arbitration or administrative or judicial action, where appropriate.

Data development at the ECFRPC involves developing and maintaining a core database that compiles data sets by geographic unit to allow for spatial analysis of demographic and growth trends by ECFRPC staff, local governments and the general public. The ECFRPC is undertaking a multi-year effort to identify the data needed for such a database and to develop an implementation plan for collecting, storing, using and maintaining those data. This system will allow the graphic presentation of metropolitan and regional trends and will provide an exciting tool for "what if" examinations of the future.

The ECFRPC provides technical assistance to its member local governments in a variety of ways. These include staffing the Local Emergency Planning Committee's hazardous materials training program for city and county professionals; reviewing local government comprehensive plans, plan amendments and Developments of Regional Impact; reviewing high speed rail plans and county emergency plans; and serving as the regional clearinghouse for review of federal funding or permitting programs. The ECFRPC also provides information, technical assistance, and a forum for communication to the region's housing planners. As an association of local governments, the ECFRPC is an objective, locally based advisor on growth management issues. As a result, the ECFRPC is often asked to provide short-term technical assistance in areas so varied as analyzing the boundaries of City election districts, providing data on areas slated for annexation, developing computerized land use, zoning and City base maps, and researching local ordinances.

The regional planning council's primary role, relative to Pierson, is to review and coordinate the Town's comprehensive plan with the regional policy plan. This was accomplished through the original plan's formal review and adoption process and was also accomplished when the RPC reviewed the Town's EAR based amendments to the plan.

2. St. Johns River Water Management District (SJRWMD). The water management district has regulatory jurisdiction over surface water management activities, consumptive uses of water, water well construction and dredge and fill activities. The major point of contact with the district is over consumptive use permitting relative to the Town's potable

water supply system and local agriculture uses. A number of local agricultural operators are cooperating with the district on monitoring and water management programs. The availability of good and adequate water is essential to the Town's potable water supply system and local agricultural activity, so the operations and decisions of the district are of significant local interest.

In 2005, the Florida Legislature passed Senate Bills 360 and 444 which are intended to improve the coordination of water supply planning and land use planning through the strengthening of the statutory linkage between the regional water supply plans prepared by the respective water management districts and the comprehensive plans prepared by the local governments. As a result of this legislation, all local governments subject to a regional water supply plan must revise their comprehensive plans within eighteen months after the approval of the regional water supply plan. The 2005 District Water Supply Plan was approved by the SJRWMD Governing Board on February 7, 2006. The Town's prepared its Water Supply Facilities Work Plan, WSFWP, in 2010 in conformance with Section 163.3184(3)(a) FS and Rule 9J-11.006(1)(a)3 FAC. The plan, amendment, was reviewed by the WMD, found in compliance by FDCA and received a Consistency Certification from the VGMC. As stated in the amendment, the WSFWP has been incorporated in the Potable Water Sub-Element's Data, Inventory and Analysis and Goals, Objectives and Policies.

State and Federal Agencies

One federal agency and five state agencies are listed below as key agencies with which Pierson has and will continue to coordinate its planning, regulatory and infrastructure improvements with:

1. Farmers Home Administration (FmHA). FmHa provides a wide range of assistance to rural communities. This assistance includes a range of housing support programs and public facilities support. FmHA financed the construction of the Town's potable water system as well as supporting new housing construction. To date, coordination has been done at the Town Council level (providing a low interest for the construction of the Town's water system) or by private individuals (for home loans).

2. Department of Economic Opportunity, DEO (formerly the Florida Department of Community Affairs). DEO has the responsibility for reviewing text and Future Land Use Map amendments to Pierson's comprehensive plan to ensure compliance with state law and the state policy plan. The formal steps for assuring this coordination are set out in Chapter 163, F.S. The Town Council with assistance from its Planning Commission has been responsible for this coordination activity.

3. Florida Department of Environmental Protection (FDEP). FDEP is responsible for regulating the operation of central potable water and sewer collection and treatment systems, enforcement of water quality violations and permitting construction in waters of the state. The Town's primary contact with DEP has been related to monitoring and reporting on the operation of the Town's potable water system. The Town's public works staff is responsible for maintaining system records and the required information is

submitted to the Clerk's office.

4. Florida Department of Transportation (FDOT). FDOT is responsible for improvement and maintenance of the Town's only major arterial roadway, U.S. Highway 17, which is the main road through town. FDOT also regulates curb cuts on this road through its district office in Deland.

5. Florida Department of Health (FDOH). The primary impact of FDOH is through licensing activities of day care and group home facilities. These are special uses under current Town codes and the Town typically requires conformance with FDOH rules as a condition of approval. This is a zoning matter which is decided by the Town Council which considers the recommendation from the Town's Planning Commission in its deliberations.

6. Department of Business & Professional Regulation (DBPR). The DBPR is responsible for a wide range of licensing activities for construction and professional services. The DBPR verifies the ability of a provider to perform a service and serves as an office to address complaints.

7. Department of State, Division of Historical Resources (DHR). The Division of Historical Resources provides guidance and assistance to local governments in their efforts to preserve, protect and enhance historical/archeological sites/structures in their communities.

ISSUES AND OPPORTUNITIES

Intergovernmental coordination on both a formal and informal basis has had a successful track record in Volusia County. Cooperative committees encompassing both the technical (staff) and policy (elected official) levels are commonly used to seek solutions to area problems. This is evidenced by the number of interlocal agencies included in the inventory. The Volusia Council of Governments has been active since the 1960's and has been a leading force in generating an area-wide planning base.

Volusia County has been a frequent user of special districts to address multi-jurisdictional needs ranging from mosquito control to health care. Those districts which directly affect Pierson are noted in the inventory. These districts are typically created with a funding base to implement multi-jurisdictional facility and service programs.

As a charter county, Volusia County has powers which extend into the incorporated areas. The County has used these powers to establish minimum performance standards on a range of environmental issues including stormwater management, tree preservation, wetlands protection, and potable water wellfield protection among others. As the implementation of these minimum standards continues, the county will achieve an increasing level of inter-jurisdictional consistency. Volusia County has also instituted a road impact fee which applies within the municipalities. All of these efforts have been supported by technical steering committees of citizens and governmental staff.

Volusia County has also established the Growth Management Commission, VGMC. The

VGMC is to review plans and plan amendments to determine consistency with adjacent and area-wide plans. It includes members from each municipality and the school board. Any comprehensive plan amendment must obtain a certificate of consistency from the VGMC, along with the required state and regional reviews.

The following sections analyze the types of intergovernmental coordination mechanisms used to date. They identify issues which need to be addressed by the plan as well as opportunities which need to be developed in either a formal or informal cooperative setting.

Regulatory Relationships

On a basic level, the Town is required to coordinate development approvals with other agencies which have approval over some phase of development. The checks are done at the time a building permit is issued, and in some cases additional verification is required prior to final approval of new construction. These checks include:

Volusia County - Road Impact Fees, Well Permits

Health Department -Septic Tank Approval

SJRWMD - Stormwater Management Permit, Consumptive Use Permit

The key to making this system of regulatory coordination work is knowledge on the part of the Town staff that an external approval is required for any given project. This been accomplished through training and through the preparation of manuals and checklists which provide documentary support.

Planning Relationships

Within Volusia County there are several formal planning relationships which have been established to coordinate planning programs on a multi-jurisdictional basis. These include the Volusia Growth Management Commission, VGMC, and the Volusia Council of Governments, VCOG, and the Volusia Transportation Planning Organization, VTPO.

The VGMC has a routine notice of plan amendments and created a forum where differing viewpoints on plan amendments can be aired. The VGMC has sought to encourage competing interests to continue to negotiate issues and develop mutually agreeable solutions. Occasionally these relationships have been adversarial in nature, but to date most differences have been resolved. The VGMC provides an important forum for conflict resolution.

The VCOG has worked on a more informal basis in promoting intergovernmental coordination. The VCOG works with elected officials to develop uniform approaches to area-wide issues which each member City can enact into local ordinance. At the technical level, VCOG has also been effective in bringing various staff together to work on area-wide problems.

The Town has an appointed Council member who serves on the Volusia TPO Board, an appointed citizen who serves on the TPO's Citizen Advisory Committee, CAC, and utilizes the

services of its planning consultant as its representative on the TPO's Technical Coordinating Committee, TCC. These representatives serve to provide input in the TPO's planning/budgeting processes on behalf of the Town Council.

Cooperative Opportunities and Needs

The inventory of agencies has identified opportunities for cooperative action with several other agencies. These include:

1. *Housing Assistance.* The provision of housing for low and moderate income households is an important issue. The Town needs to coordinate the efforts of the local CDBG and FmHA programs to maximize the impact of these resources. In addition, there is some benefit to be derived from a county-wide housing authority which could compete for funding to provide new low cost housing units.
2. *Transportation Improvements.* The Town needs to continue to work with the local zone committee, the County's Public Works staff, the VTPO and FDOT to coordinate road maintenance, new road construction efforts, traffic operation improvements and construction of bicycle/pedestrian paths.
3. *Conflict Resolution and Extraterritorial Development Impact.* Planning and plan implementation and/or development proposals, within or external to the Town, can be the subject of conflicts with other local governments, state regional and federal agencies, environmental groups and citizens. The VGMC and the ECRPC, depending upon scale, are agencies the Town can utilize to assist the Town in resolving these types of issues. While the Town is currently an island in northwest Volusia County, development in adjacent counties, the Walmart distribution center in Putnam County, for example, has the potential to significantly impact the community.
4. *Volusia County School Board.* The two schools in the Town can serve as a primary community resource beyond their basic educational function. The Town needs to develop a close working relationship with the School Board and school staff to make the most of this opportunity.

CONSISTENCY WITH OTHER AGENCY PLANS AND PROGRAMS

Plan Elements

Future Land Use Local governments in Volusia County identified the need to have better coordination between local governments on issues relating to all elements of the comprehensive plan. Pierson participates on the Volusia County Growth Management Commission (VGMC). While this is a formal relationship, the Town should continue to pursue informal discussions with jurisdictions to anticipate issues prior to formal review processes are underway.

Traffic Circulation As all jurisdictions adopt their transportation elements, the need to avoid

unwarranted overlap or conflict becomes more important. The Volusia communities' ability to address concurrency issues requires continuing negotiation. The VGMC and the TPO are the best tools to facilitate coordination.

Housing Housing is primarily a market driven function. Since the Town's direction in the Housing Element is to make the development of new affordable housing less of a regulatory encumbrance, the Town should monitor other communities' successes and failures to ease the regulatory burden.

Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge It is crucial to the Town's maintenance and expansion of its Potable water system to coordinate its efforts with the FDEP, SJRWMD and Volusia County. Protection of aquifer recharge areas with assistance from the SJRWMD is necessary to ensure the viability of the Town's potable water source. Town initiated stormwater drainage improvements and the review of development proposals should continue to be coordinated with the SJRWMD from both a planning and permitting perspective. Future efforts to encourage the use of small scale, component wastewater treatment systems will require coordination with FDEP and the Volusia County Health Department.

Conservation Since natural resources, in many cases, cross jurisdictional boundaries and the Town does not have in-house environmental expertise, it is important for the Town to coordinate its conservation efforts with the appropriate County, regional, state and federal agencies. Coordination, in this instance, includes planning, permitting and funding of land acquisitions.

Recreation and Open Space As the Town grows, it will need additional parks and recreation facilities and open space. The Town should coordinate with the County and the School Board to provide shared facilities and open space.

Capital Improvements As the Town grows the need for capital improvements will also grow. The Town will continue to explore funding sources at the local, state, regional and federal level. The Town will explore opportunities to partner monetarily and/or in-kind in programs where funds are pooled to finance projects of an area-wide or regional significance. Funding future capital improvements will require innovative, cooperative solutions.

Public Schools Facilities. The Town coordinated with the School Board the adoption of its Public School facilities Element and related amendments to both the Capital Improvements Element and this Element and executed an interlocal agreement with the Board. The Town requires that developments subject to school concurrency submit a concurrency application to the School Board and development proposals have to meet school concurrency prior to the Town issuing a development order.

Consistency with Other Volusia County Local Governments' Plans

The Volusia County Growth Management Commission, VCGMC, was created to coordinate

the comprehensive planning activities between neighboring cities and the County. Depending upon FDCA's future role in reviewing plans and amendments, the VCGMC may take an even more significant coordination role.

Consistency with the Regional Policy Plan

The Town coordinated the development of the most recent EAR based amendments to this plan with the East Central Florida Regional Planning Council, ECFRPC to ensure that the Town's policies are consistent with the policies and strategies contained in the Council's 2060 Strategic Regional Policy Plan. The Town will pursue the strategies of the Regional Policy Plan within the limits of its capabilities and resources. The Town will review any proposed amendments to the Regional policies to ensure consistency between its and the ECFRPC's policies.

Consistency with the State Comprehensive Plan

The goals and policies of the State Comprehensive Plan are addressed throughout this Comprehensive Plan. The most recent EAR based amendments were found to be consistent with the state's goals and policies. The Town will continue to use the State Plan as a guide for policymaking.

Areas of Critical State Concern

There are no areas of critical state concern, either partially or wholly within the Town of Pierson's planning area.

TOWN OF PIERSON COMPREHENSIVE
CHAPTER VIII INTERGOVERNMENTAL COORDINATION ELEMENT GOALS, OBJECTIVES AND
POLICIES

**CHAPTER VIII
INTERGOVERNMENTAL COORDINATION ELEMENT**

GOALS, OBJECTIVES & POLICIES

The goals, objectives and policies which have been developed for the Intergovernmental Coordination Element are based on specific needs of Pierson as expressed in the data inventory and analysis. These goals, objectives and policies are intended to work in concert with the other elements of this plan.

Goal 1 – Coordinate the Pierson Comprehensive Plan and its implementation with the plans and policies of other governments and agencies to maximize the impact and effectiveness of each plan.

Objective 1.1 - Pierson shall coordinate its plan with the plans of Volusia County, other municipalities and the Volusia County School Board.

Policy 1.1.1 - Pierson shall submit plan amendments to the Volusia Growth Management Commission, VGMC, to ensure consistency with the plans of Volusia County and other municipalities.

Policy 1.1.2 - Pierson shall provide a copy of its proposed plan amendments to Volusia County prior to adoption by the Town Council.

Policy 1.1.3 - Pierson shall provide copies of any periodic progress reports to Volusia County.

Policy 1.1.4 - Pierson shall provide a copy of proposed plan amendments to the Volusia County School Board.

Policy 1.1.5 - Pierson shall request an opportunity to review and comment on the plans of Volusia County and the Volusia County School Board.

Objective 1.2 - Continue to coordinate Pierson's plan with development in the unincorporated county and the plans of the region and the state.

Policy 1.2.1 - Pierson shall continue to coordinate with Volusia County its review of development proposals in the adjacent unincorporated area.

Policy 1.2.2 - Pierson shall provide Volusia County an opportunity to comment on any comprehensive planning, zoning or subdivision action proposed by Pierson.

Policy 1.2.3 - Prior to the adoption of plan amendments, Pierson shall review the Strategic Regional Policy Plan and provide a statement of how Pierson's plan is consistent with or implements the regional plan.

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Policy 1.2.4 - Prior to the adoption of plan amendments, Pierson shall review the state policy plan and provide a statement of how Pierson's plan amendments are consistent with and/or implement the state plan.

Policy 1.2.5 - Where inconsistencies with the State or Regional plans are identified in the Objections, Recommendations, and Comments Report or subsequent reviews, the Town shall revise the plan or take other positive actions to resolve the inconsistencies.

Policy 1.2.6 -Where its interests are affected, Pierson shall participate in public hearings and informational meetings sponsored by other local governments and regional and state agencies.

Objective 1.3 - Pierson shall continue to require approvals of development plans from external agencies the Town has specified in its development regulations.

Policy 1.3.1 - Development orders, including development plan approvals and issuance of Certificates of Occupancy, may not be issued until any required outside agencies approvals have been obtained.

Policy 1.3.2 – Pierson shall continue to state, enforce and update as necessary in its development review forms and procedures that certain required approvals from outside agencies must be obtained prior to the Town's approval.

Objective 1.4 - Pierson shall coordinate its designated levels of service with other governments providing service to the Town.

Policy 1.4.1 - Volusia County shall be advised of, concur with and annually review the level of service for solid waste disposal.

Policy 1.4.2 - The Florida Department of Transportation shall be advised of the local level of service designated for state roads in the Town.

Policy 1.4.3 - Pierson shall continue to coordinate with the County the enforcement of its minimum performance standards for environmental protection.

Objective 1.5 - Pierson shall continue to be represented on local policy or technical committees which act to coordinate planning or plan implementation efforts.

Policy 1.5.1 - Pierson shall closely coordinate with the St. Johns River Water Management District by monitoring proposed district rules, cooperating with district programs of benefit to the Town, and comments on district activities at

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regular district meetings and public hearings.

a. The Town will maintain a water supply facilities work plan that is coordinated with the SJRWMD's Water Supply Plan by updating the work plan and related Comprehensive Plan policies within 18 months of an update to SJRWMD's Water Supply Plan that affects the Town. The work plan shall identify alternative water supply projects and traditional water supply projects and conservation and reuse necessary to meet existing and new development water needs.

b. The Town will participate in the development of updates to SJRWMD's water supply assessment and Water Supply Plan and other water supply development-related initiatives facilitated by SJRWMD that affect the Town.

Policy 1.5.2 - Pierson shall continue to be represented on the Zone 4 Impact Fee Advisory Committee to coordinate road construction actions and priorities.

Policy 1.5.3 - Pierson shall continue to have a representative serve on the Volusia Growth Management Commission and to support their efforts at coordinating planning activities in Volusia County.

Policy 1.5.4- Pierson shall continue to appoint members to serve on the policy and technical committees of the Volusia Council of Governments, VCOG, as opportunities to serve on these committees arise.

Policy 1.5.5- The Town shall continue to work with Farmer's Home Administration and Volusia County to develop a coordinated program for the delivery of housing assistance.

Objective 1.6 - Pierson shall establish a program for resolving intergovernmental conflicts.

Policy 1.6.1 - The Town shall meet with representatives from the other affected parties to attempt to negotiate a resolution to any conflict.

Policy 1.6.2 - Where no direct solution can be obtained, the Town shall work with the Volusia Council of Governments to identify and implement solutions.

Policy 1.6.3 - Should the VCOG be unable to assist the Town in resolving the issue, the Town shall work with the Volusia Growth Management Commission to resolve any inconsistency between plans.

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Policy 1.6.4 - Where no local resolution can be obtained, the Town shall apply the mediation process available through the East Central Florida Regional Planning Council.

Goal 2 - Establish and maintain a cooperative relationship between the Town of Pierson and School District to provide an effective joint planning process including procedures to coordinate land use planning with the development of school facilities including public school siting, calculate population projections, and provide for the development of public education facilities concurrently with residential development and other public facilities and services.

Objective 2.1 - Intergovernmental Coordination

The Town of Pierson shall establish coordination mechanisms with the School Board to achieve a collaborative effort to identify school needs, provide for schools facilities and implement school concurrency using consistent supporting data and analysis.

Policy 2.1.1: In cooperation with the School Board, the Town of Pierson shall adopt and implement the interlocal agreement as required by Section 1013.33 F.S., which includes procedures for:

- a. Coordinating and sharing information
- b. Educational and ancillary siting procedures
- c. Comprehensive plans and plan amendment review
- d. Site design and development plan review
- e. Joint development of schools, parks and other uses
- f. School concurrency implementation
- g. Implementation and amendments
- h. Resolution of disputes

Policy 2.1.2: In accordance with the schedule established in the interlocal agreement, the Town of Pierson shall appoint a representative to meet with School Board and other local government representatives to review data and annually approve a projection of the amount, type, and distribution of population growth and student enrollment. Data shall include but not be limited to:

- a. Capital budgets for each jurisdiction
- b. School Board five-year facilities work program
- c. School Board educational plant survey (every fifth year)
- d. Volusia County five-year road improvement program

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- e. Anticipated new development, infill development and redevelopment
- f. Student enrollment and school utilization including portable classroom assignments

Policy 2.1.3: Town of Pierson shall provide the School Board with a copy of each planning board and Commission agenda.

Policy 2.1.4: The Town of Pierson and the School Board shall coordinate the acquisition and development of sites for future educational and ancillary facilities in accordance with the process established in the interlocal agreement.

Policy 2.1.5: By 2011, the Town of Pierson shall adopt regulations necessary to implement school concurrency and Section 206 of the Volusia County Charter.

Policy 2.1.6: The Town of Pierson shall provide notice to adjacent jurisdictions as required by the Volusia County Interlocal Agreement for School Planning when school capacity in the adjacent jurisdiction is anticipated to be applied to meet concurrency requirements for proposed residential development.

Objective 2.2 – Monitoring and Evaluation

The Town of Pierson shall regularly monitor and evaluate the implementation of the Public School Facilities Element to assure compliance with the provisions of the comprehensive plan and the interlocal agreement, to assure the use of best practices in the joint planning of school facilities, and to provide for the continuing coordination of school planning.

Policy 1.2.1: In accordance with the interlocal agreement but no less than once per year, the Town of Pierson shall submit a report to the Board of Planning and Appeals (LPA) and the School Board reporting on the implementation actions and coordinated planning efforts for planning and developing school facilities including joint development opportunities. If the School Board or (local planning agency) finds that implementation of the plan or interlocal agreement is not occurring, the School Board or (LPA) shall make recommendations to the Town Council of steps necessary to achieve successful implementation.

Policy 1.2.2: For each comprehensive plan amendment reviewed by the Volusia Growth Management Commission (VGMC), the Town of Pierson shall identify in the VGMC application support materials how anticipated impacts of the proposed amendment to school facilities are addressed.

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Policy 1.2.3: The Town of Pierson shall appoint a citizen to serve as a member of the oversight committee created by the adopted Interlocal Agreement and shall appoint a staff member to serve on the technical committee created by the adopted Interlocal Agreement.

**TOWN OF PIERSON COMPREHENSIVE PLAN
CHAPTER IX CAPITAL IMPROVEMENTS ELEMENT DATA INVENTORY AND ANALYSIS
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CHAPTER IX CAPITAL IMPROVEMENTS ELEMENT DATA INVENTORY AND ANALYSIS

INTRODUCTION This Element is intended to meet the requirements of the Florida Community Planning Act (CPA) in s.163.3177(3)(a) FS. The purpose of the Capital Improvements Element, CIE, and the capital improvement schedule of the Town of Pierson's Comprehensive Plan is to evaluate the need for public facilities as identified in other Elements of this Plan. In addition, the CIE will present an analysis of the fiscal capability of the Town of Pierson to fund needed public facilities, recommend financial policies to guide the funding and construction of those identified improvements and to schedule the funding and construction of improvements in a manner necessary to ensure that capital improvements are provided when required.

Under the 1985 Growth Management Act, local governments were mandated to plan for the availability of public facilities and services to support development and the impacts of such development. The 2005 Growth Management Act (Senate Bill 360) required the Schedule to be financially feasible. As was defined by §163.3164(32), FS, in order for a Schedule to be financially feasible, it must have demonstrated that sufficient revenues are currently available or will be available from committed funding sources for the first three (3) years, or will be available from committed or planned funding sources for years four (4) and five (5). These revenues were to be adequate to fund the projected costs of the capital improvements identified in the Comprehensive Plan necessary to ensure that adopted level-of-service (LOS) standards were achieved and maintained within the period covered by the five (5) year Schedule.

The Community Planning Act, CPA, 163.3177(3)(a)4., FS, requires a schedule of capital improvements which includes any publicly funded projects of federal, state or local government, and which may include privately funded projects for which the local government has no fiscal responsibility. Projects necessary to ensure that any adopted level-of-service standards are achieved and maintained for the 5-year period must be identified as either funded or unfunded, and given a level of priority for funding.

Per the CPA, , the term "capital improvement" means physical assets constructed or purchased to provide, improve or replace a public facility, and which are typically large scale and high cost. The cost of a capital improvement is generally nonrecurring and may require multi-year financing. The capital improvements identified in the other elements of this Comprehensive Plan are listed in Table IX-1 along with their estimated costs and projected year of expenditure. The improvements are listed by type of service, related to the various elements of the Comprehensive Plan. This Capital Improvements Element addresses existing and future capital improvements needed for the first five (5) fiscal years after the adoption of the EAR Based Amendments to the Plan. Therefore, Table IX-1 lists improvements identified for FY 2010/11 through FY 2014/15. Table IX-1A identifies the Volusia County School Board five (5) year work program which must be referenced within the CIE per the Public Schools Facility Element.

CAPITAL IMPROVEMENT INVENTORY

Needs Derived From Other Elements

This section lists and describes those capital improvements identified in the other elements of

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the Comprehensive Plan which are necessary to meet and maintain the adopted level of service standards, and support the magnitude and pattern of growth and development set forth in the Future Land Use Element. Only those improvements needed during the next five years (FY 10/11 through FY 14/15) are included in the 5-year Capital Improvement Program, CIP, Table IX-1. Per the CPA, this element must be reviewed annually. Modifications to update the schedule may be accomplished by ordinance and may not be deemed to be amendments to the comprehensive plan.

With the exception of the capital improvement needs addressed in the Potable Water Sub-Element, no capital improvement needs are identified in other Elements of the Comprehensive Plan. Table IX-1 identifies those needs associated with the expansion of the Town's potable water system and indicates the proposed fiscal year the improvement will be constructed and provides an estimate of the total project cost.

TABLE IX-1
CAPITAL IMPROVEMENT NEEDS: FY 10/11 through FY 14/15
Town of Pierson, Florida

Project Description	<u>Budget Year</u>	Estimated Cost
Add potable water wells	FY 2010-11	\$70,000
Purchase and install pumps & accessory equipment	FY 2011-12	\$300,000
Retrofit & expand potable water distribution system, year 1	FY 2013-14	\$800,000
Retrofit & expand potable water distribution system, year 2	FY 2014-15	\$800,000

Potable Water System Improvements

Additional potable water supply capacity, as a result of the construction of two new wells and accessory equipment and retrofitting and expanding the distribution system is proposed to be phased over the next four fiscal years. These improvements are necessary to provide/improve service and adequate fire fighting capacity from hydrants for existing and future residents and service to the new school, when it is constructed. Wells and accessory equipment will be funded from reserves in the Water Fund. Improvements to the distribution system are proposed to be funded by a revenue bond.

Public Education Needs

Concurrent with the Town's adoption of its Public School Facilities Element, PSFE, in 2008, the following amendment to the CIE was adopted that addresses public education needs. The only proposed capital improvement impacting the Town of Pierson was the Pierson/Seville school that would be built on a parcel of land owned purchased by the School Board fronting US

Highway 17 at the north end of the Town. The project, most recently proposed for a construction start date in 2013, has subsequently been removed from the School Board's five year capital improvement program. When this facility will be built is unknown at this time.

PROJECTED SCHOOL CAPITAL FACILITY NEEDS 2012-2025

The projection of needed capital improvements begins with the School District's proposed capital program for the period 2007-08 through 2011-12. This program is financially feasible as revenues are balanced to expenditures and the program achieves the designated level of service at the end of the five year period except for those schools designated as constrained and those schools for which a tiered level of service has been identified. The tiered level of service extends until 2014 to allow for construction projects that will be initiated within the proposed five-year program but will not be completed in all cases until the 2014-15 school year. The proposed program also includes needed ancillary facilities including warehouse, maintenance, transportation and administrative facilities that have been determined to be necessary by the School District. Table IX-1A summarizes the initial five-year program for added student capacity and ancillary facilities which will be adopted by reference by the local government and annually updated by the adoption of future five-year programs.

In order to identify the timing and location of needed schools for the period between 2012 and 2025, student growth was projected by year for each geographic area based on the growth projections from the data and analysis report. The eight school planning areas were used for the elementary level and the concurrency service areas for high schools were used to evaluate high school and middle school need. The Halifax Area was then examined at the school planning area level to determine if there were any smaller area impacts on middle schools that needed to be considered.

Schools were assumed to be needed when there were sufficient students available within the service area to comprise 80% of the standard size for the school level. The analysis area was also tested for compliance with the designated level of service standard to identify any LOS violations that might occur prior to the general need for a new school. A school was assumed to be needed when either demand reached 80% of standard school size or the analysis area exceeded the LOS for that area. This approach provides an indication of when and where LOS issues may be expected, but it does not get down to the individual school level since the error level over the term of the study is too great to make projections reasonable. At the individual school level, LOS issues may be encountered sooner than anticipated by this analysis. Close monitoring is going to be necessary as part of the annual system review and budget development to identify and respond to LOS considerations. Table IX-1B provides a listing of anticipated schools needs by location, type and year. This table lists only capacity, ancillary or replacement projects. Other capital maintenance projects are not reflected nor are needs for school replacement.

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**TABLE IX-1A
VOLUSIA COUNTY
PUBLIC SCHOOL FACILITIES ELEMENT
CAPITAL IMPROVEMENTS PROGRAM 2007-8 TO 2011-12**

Facility	2007-08	2008-09	2009-10	2010-11	2011-12
New Elementary D	1,400,000	28,000,000	2,400,000		
New Elementary Z	1,200,000	22,273,680	2,400,000		
New Central Warehouse	11,990,000	1,850,000			
Pierson-Seville Replacement	1,200,000		22,273,680	2,400,000	
Chisholm Elementary Addition	800,000	7,000,000	1,000,000		
Enterprise Elem. Addition	150,000	4,100,000	200,000		
Orange City Elementary Addition/Renovation	800,000	8,385,000	1,000,000		
Westside Elem. Addition	180,000	1,007,000	80,000		
DeBary Elementary Addition	3,950,000	250,000			
Sweetwater Elementary Add.	2,300,000	150,000			
Daytona Transportation Replacement	13,700,000	1,800,000			
Indian River Elem. Addition		150,000	3,200,000	180,000	
EDC Replacement (Admin.)		13,530,000	2,300,000		
Marks Elementary Replacement		1,200,000	30,000,000	2,400,000	
New Elementary E		1,200,000	22,273,000	2,400,000	
New K-8 FF		1,600,000		47,114,496	3,600,000
New Middle HH		1,600,000	45,302,400	3,600,000	
Bonner Elementary Renovation		1,000,000	12,000,000	1,200,000	
Sunrise Elementary Addition		180,000	3,200,000	180,000	
New Elementary A			1,200,000	24,100,000	2,400,000
New High School FFF			2,600,000		
Ormond Beach Middle Replace.			24,865,984	2,000,000	
Atlantic High School Add.				200,000	4,781,920
New Elementary F		2,100,000		1,300,000	24,200,000
New Elementary B					1,500,000
New Elementary C					1,500,000
Southwestern Middle Add.					500,000
Total	37,670,000	97,375,680	176,295,064	84,574,496	38,481,920

**TABLE IX-1B
VOLUSIA COUNTY
PUBLIC SCHOOL FACILITY ELEMENT
PROJECTED SCHOOL NEEDS 2011-12 TO 2025-26**

SCHOOL	LOCATION	START	OPEN	NOTES
Elementary F	West	10-11	12-13	
Elementary B	Southeast	11-12	13-14	
Elementary C	N. Halifax	11-12	13-14	
Southwestern Middle	West	11-12	13-14	Addition. Capacity TBD
Elementary	S. Halifax	18-19	20-21	
Middle	Southeast		20-21	LOS Need Phased FF conversion
High	Halifax/SE	17-18	20-21	LOS need
Elementary	Southwest	19-20	21-22	
Elementary	C. Halifax	21-22	23-24	
Elementary	West	21-22	23-24	
Middle	S. Halifax	22-23	24-25	
Elementary	N. Halifax	23-24	25-26	
Elementary	S. Halifax	23-24	25-26	
Elementary	Southeast	23-24	25-26	Required sooner if FF is phased to middle
Elementary	NW	24-25	25-26	LOS need 9 class addition
High	West/SW	22-23	25-26	LOS need

Land Banked School Sites

The Volusia County School District has routinely purchased sites for schools in anticipation of future need. Table IX-1B provides a projection of anticipated school site needs by location and the data and analysis report contains a listing of available sites. In addition to the known need generated by projected schools the plan recommends maintaining and inventory of additional sites to give the School District and local governments flexibility to address short term shifts in population and/or student growth and to provide additional options to respond to level of service issues that will arise at the elementary and middle school level that are extremely difficult to predict at the school attendance zone level. Even relatively small shifts in population or student generation could shift the timing of demand appearing in the school planning areas. If construction funding is anticipated, the additional land-banked school sites will allow the School District to shift projects in a relatively short period of time to respond the short-term shift in student demand. The School District should maintain or reserve sites in the following areas:

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Elementary School Sites: North Halifax
 South Halifax
 Southeast
 Southwest
 West

Middle School Sites: Halifax/Southeast
 Southwest/West
 Northwest (flex site for elementary or middle school)

High School Sites Halifax/Southeast
 Southwest/West

Ancillary Facilities

The proposed work program identifies a replacement facility for the Educational Development Center now housed in an older school facility that requires substantial repair or replacements and a new central warehouse to be located with the central maintenance facility. These are the remaining ancillary facilities that were identified as required by the data and analysis. As with classroom needs the ancillary facilities will be monitored and reviewed on an annual basis and the interlocal agreement includes procedures for coordinating the location of ancillary facilities with the local government.

Constrained Schools

The Volusia County School District includes a limited number of schools that have high utilization levels but due to site conditions cannot be expanded on site. These are generally schools in rural or semi-rural areas with little planned growth and are generally smaller schools that have strong community ties. In these cases rezoning to another school is possible but is an option that is expected to be resisted by parents in these areas. For these schools, the plan provides for a permanent designation as constrained and the schools will be maintained at their current levels of service. Concurrency will be reviewed in the adjacent concurrency service areas and requests to increase residential densities in the constrained concurrency service areas will need to be accompanied by a plan to address school capacity. The constrained schools will maintain this status until they are replaced or other improvements are made that bring them within the designated level of service.

The district also occasionally encounters a situation where parents at a highly utilized school resist rezoning to a replacement school preferring to remain at the current school even though it may be heavily utilized. On occasion the School Board has responded to these situations by creating a transitional process where currently enrolled students are given a “grace period” to finish at their original school while newer students are transitioned to the permanent school assignment. In these cases a temporary designation as a constrained facility is appropriate to allow for the short-term operation of that school at a level that exceeds the designated level of service while the transition period is completed. During this period new development could be permitted if adequate capacity will be available at the end of the transition period.

Renewal and Replacement of School Facilities

Other than construction of new schools the most significant capital cost the School District must address is maintenance of existing facilities and the replacement of existing schools when they become obsolete. The condition of existing facilities is addressed in a survey completed every five years. The next survey for Volusia County will not be complete until late in 2007 or 2008. Once this information becomes available, the required projects are added into the five-year capital improvements plan as part of the overall program. To provide for this need, the financial plan has allocated a funding reserve equivalent to the replacement cost for one-fortieth of the total number of student stations. This allocation assumes that a school will have a useful life of 40 allocations will be converted into specific capital projects and the budget adjusted accordingly.

Funding Projections for New Capacity

Table IX-1C presents the proposed financial plan for capital improvements scheduled within the five-year period beginning with 2007-2008 fiscal year. This table includes funding for all capital expenses regardless of whether the expense results in the provision of new student capacity or the replacement of existing schools. (Therefore, this Table IX-1C will not exactly correlate with Table IX-1A as Table IX-1A only identifies new capacity projects, school replacements and ancillary facilities.) Revenues and expenditures for the five year program are balanced demonstrating that the five-year capital improvements program is financially feasible.

Table IX-1D provides a summary of projected revenues and costs for school projects generating new capacity and programmed ancillary facilities. The table compares projected revenues with projected costs and notes funding surpluses and shortages for the period beyond the initial five year program. The table has been broken into three groupings representing future planning periods. The first column projects revenues and costs for the next four years while the second and third columns make these projections for succeeding five year periods. The adjustment in the second column as a four-year review is done to allow the projections to dovetail with the typical planning windows for local government comprehensive plans.

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**TABLE IX-1C
VOLUSIA COUNTY
PUBLIC SCHOOL FACILITIES ELEMENT
FINANCIAL PLAN 2007-08 THROUGH 2011-12**

Fund Source	2007-8	2008-9	2009-10	2010-11	2011-12	Total
CO& DS & COBI Bonds	400,000	400,000	400,000	400,000	400,000	2,000,000
PECO	9,126,330	3,740,455	3,873,185	3,993,943	4,159,502	24,893,415
Classrooms for Kids	10,079,213					10,079,213
Property Tax (2 mills)	78,482,976	83,191,954	88,183,471	93,474,480	99,082,948	442,415,829
Impact Fee	14,500,000	17,651,880	17,651,880	17,651,880	17,651,880	85,107,520
½ Cent Sales Tax	37,284,508	38,403,043	39,555,134	40,741,788	41,964,042	197,948,515
Other Financing Sources		40,503,680	153,915,064	47,114,496		241,533,240
Interest	9,600,000	4,200,000	4,200,000	4,200,000	4,200,000	26,400,000
Sub-Total	159,473,027	188,091,012	307,778,734	207,576,587	167,458,372	1,030,377,732
Projects in Progress	311,976,026					311,976,026
Beginning Fund Balance	57,070,409	65,218,244	38,717,755	45,681,977	40,769,150	247,457,535
Total	528,519,462	253,309,256	346,496,489	253,258,564	208,227,522	1,589,811,293
Expenditures	2007-8	2008-9	2009-10	2010-11	2011-12	Total
New Construction	30,540,000	75,153,680	156,665,064	86,364,496	34,250,000	382,973,240
Projects at Existing Schools/Facilities	31,231,340	45,383,056	41,676,330	19,060,123	23,815,925	161,166,774
Facilities Management	4,030,304	4,191,516	4,359,177	4,533,544	4,714,886	21,829,427
Technology	11,130,000	11,797,800	12,505,668	13,256,008	14,051,368	62,740,844
Equipment/Vehicles	3,913,182	4,098,841	4,293,783	4,498,472	4,713,396	21,517,674
Buses	3,817,752	4,178,088	368,232	399,588	5,504,820	14,268,450
Projects in Progress	311,976,026					311,976,026
Sub-Total	396,638,604	144,802,981	219,868,254	128,112,201	87,050,395	976,472,435
Transfers						
To Debt Service	51,641,041	54,583,520	65,741,258	69,172,213	69,170,439	310,308,471
To General Fund	15,021,573	15,205,000	15,205,000	15,205,000	15,205,000	75,841,573
Ending Fund Balance	65,218,244	38,717,755	45,681,977	40,769,150	36,801,688	227,188,814
Total Expenditures, Transfers, Fund Balances	528,519,462	253,309,256	346,496,489	253,258,564	208,227,522	1,589,811,293

Source: School Board of Volusia County 2007-2008 adopted budget.

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Revenues for the each planning period are based on data from the School District financial management staff and include only those revenues anticipated to be allocated for new construction. As shown in Table IX-1C, the full capital improvements program includes other classes of capital expenditures. The amount of revenue from sales tax collections and local property taxes allocated to new capacity projects is based on historical trends. Impact fees are required to be fully devoted to new capacity projects.

Revenue and cost projections beyond the initial five-year period are based on assumptions about the growth in the property tax base for the local property tax and assumptions about sales tax growth through the end of the sales tax authorization. Impact fees are estimated from projections of the number of housing units expected to be constructed to meet the approved population growth for the specific period. Both revenues and costs were adjusted by inflation factors over the term of the analysis. It is critical to remember that adjustments to taxable value or changes in the impact fee structure could have significant impacts on revenues over the term of the plan and these items need to be carefully monitored as part of the annual review process.

**TABLE IX-1D
VOLUSIA COUNTY
PUBLIC SCHOOL FACILITIES ELEMENT
FINANCIAL FEASIBILITY ANALYSIS**

Source	2012/13 – 2015/16	2016/17 – 2020/21	2021/22- 2025/26
Revenues			
Property Tax	\$83,715,000	\$136,190,000	\$149,563,000
Impact Fee	120,836,000	148,178,000	147,951,000
Sales Tax	45,207,000	12,162,000	0
State	0	0	0
Other	4,200,000	5,250,000	5,250,000
Total New	253,958,000	301,780,000	172,764,000
Borrowing	31,450,000	46,250,000	74,000,000
Total	\$285,408,000	\$348,030,000	\$246,764,000
Expenditures			
New Schools	\$72,007,000	\$268,657,000	\$448,309,000
Additions	0	0	0
Ancillary Facilities	0	0	0
Buses/Portables	24,813,000	36,951,000	45,256,000
Debt Service	55,699,000	62,938,000	74,848,000
Total	\$152,519,000	\$368,546,000	\$568,413,000
Variance (+/-)	\$132,889,000	(\$20,516,000)	(\$321,648,000)

In reviewing the financial summary for new capacity, there are several points that need to be noted.

1. The projected surplus of revenue in the 2012-13 to 2015-16 time period reflects the advance of a number of new capacity projects into the initial five year CIP and the decision made to shift some student generation to the second half of the planning period to reflect the flattening of student growth over the last two years and as predicted for the upcoming five year period. As noted earlier, these trends in student generation need to be closely monitored so the capital needs can be adjusted accordingly.
2. The negative balance in the 2016-17 to 2020-21 time periods reflects the loss of the sales tax revenue along with anticipated increases in student generation during these years. Extension of the sales tax at historical rates would close the projected funding gap.
3. The very large funding gap in the final portion of the planning period is largely a result of shifting student generation from the earlier years of the planning period and the continued absence of sales tax funding. This time period is also impacted by the absorption of capacity that is planned in the earlier years of the planning period. As the plan enters its final years, all of the capacity built at the beginning of the planning period will be absorbed and sufficient new demand generated to warrant construction of new facilities. There is, of course, the highest level of uncertainty about demand in the last quarter of the planning period, and therefore, a significant deficit in this time window, while requiring monitoring is not as significant as a similar deficit would be earlier in the planning period.

Anticipated financial shortfalls in the later years of the program can be addressed in several ways. As noted above, re-authorization of the half-cent sales tax would provide an additional revenue source to supplement the traditional funding sources. There is a prospect that proportionate share funding will increase the pool of revenue available to address capacity needs, but this revenue source has not been projected due to several factors. There is little experience with proportionate share funding for any types of projects making it difficult to project the level and utility of this funding source. Since State law requires that proportionate share funding be credited against impact fees, only a portion of any future proportionate share funding will be a net increase in dollars available for new capacity projects, and depending on the specifics of the impact fee, perhaps none of the proportionate share dollars will be new funding. The primary potential benefit from proportionate share funding agreements will be to advance the timing for new school capacity.

The School District could address the potential revenue gap by shifting funding from replacement and renewal projects to new capacity projects. As noted above the projections are based on the historical levels for funding of new capacity projects. An increase in the percentage of funding devoted to new capacity versus other types of projects is a possible response. This option does have significant potential negative impacts on the ability to maintain the existing schools in top condition. As noted in the data and analysis, two-thirds of the student stations required in 2025 exists today, and the School Board has established the maintenance of these student stations as a priority. Short-term shifts in expenditure from renewal and replacement needs to new growth needs can be sustained, but this is clearly a dangerous practice for system quality over the long term.

Finally, projected student growth needs to be carefully monitored over the long term. The current plan recognizes that student growth has slowed in recent years, and near term projections reflect this reduction. If this trend continues over the longer term, future needs and costs for new capacity will be affected. The annual review process will be important in addressing this issue.

Public Health

Health facilities serving the Town include the Family Health Source Center's, not-for-profit clinic located within the Town limits, West Volusia Hospital in Deland, and Halifax Hospital in Daytona Beach. Residents of Pierson are assessed ad volorem taxes for the West Volusia Hospital Authority which funds any capital improvements for the Deland Hospital.

Cost Estimates

Cost estimates used in this element were obtained from the following sources:

<u>Capital Improvement</u>	<u>Cost Estimate Source</u>
New Potable water wells and accessory equipment	Town's Water System Consulting Engineer
Expansion of water distribution system to accommodate new school	Town's Water System Consulting Engineer

Analysis of General Fiscal Implications of Existing and Future Needs

Review of the existing deficiencies and future needs for capital improvements reveals that the Town of Pierson has identified sources for funding of capital improvements associated with the proposed improvements to the Town's potable water acquisition and distribution system to meet the needs of existing and future residents and the proposed school in north Pierson. Water Fund reserves are available to fund construction of the two new wells and accessory equipment and the Water Fund's revenue stream is projected to be more than adequate to fund the retrofitting and expansion of the distribution system through revenue bond funding.

The relative priority of need for capital Improvements is as follows (types of projects are listed in order of priority from highest to lowest):

1. Projects needed for protection of the public health or a safety problem;
2. Projects needed for protection of the environment;
3. Projects needed to secure a public investment;
4. Projects funded by grants from outside sources; and
5. Projects needed to accommodate new development and redevelopment consistent with the Comprehensive Plan.

EXISTING REVENUE SOURCES AND FUNDING MECHANISMS

The Town has two funds which it budgets its revenue, the Government Fund or General Fund and the Proprietary Fund or Enterprise Fund. The Town's only Enterprise Fund is the Water Fund which is used to finance the Town's potable water system. Revenue sources and funding mechanisms for each of these funds is discussed below:

General Fund Revenue Sources:

1. Ad Valorem Tax Revenue

Ad valorem taxes (property taxes) are taxes on non-exempt real and personal property, assessed according to a millage rate that is applied to the assessed value of the property. In accordance with the State Constitution municipalities may not levy ad valorem taxes in excess of 10 mills. The Constitution does allow two exceptions: (1) a voted debt service millage and (2) a voted millage not to exceed a period of two years. Additionally, no property may be subject to more than twenty mills of ad valorem tax for municipal and county purposes without elector approval, regardless of the property's location, under the state constitution.

The 2009 millage rate levied by the Town for municipal services was 4.6316 mills. Based on this rate, the total tax levy in FY 2009/10 equaled \$259,300¹ with a total of \$257,300 collected as of September 30, 2010. The difference between the total tax levy and the actual amount collected represents early payment discounts and delinquent taxes. In FY 2009/10, approximately 99% of the ad valorem tax was collected. For FY 2010/11, the Town has established a millage rate of 5.3414 mills, which is projected to generate \$257,097 or approximately the same as was actually received in FY 2009/10². The millage was increased to compensate for the loss in property values.

Table IX-2 shows ad valorem tax revenues for FY 2004-2005 through FY 2009-2010. About 34 percent of total-projected revenues in the Town's FY 2010-1011 annual budget are projected to come from ad valorem taxes. While the Table shows a significant increase in ad valorem revenue from FY 2008-09 to FY 2009-10, as stated above, the Town's current millage for FY 2010-11 will result in approximately the same revenue generated for FY 2009-10.

TABLE IX-2
AD VALOREM TAXES: FY 2004-2005 through FY 2009-2010³
Town of Pierson, Florida

Fiscal Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Taxes Collected	178,408	182,076	185,555	182,359	224,686	257,300
Percent Increase	-	2%	2%	(2%)	23%	14.5%

¹ Town of Pierson, Florida, Annual Financial Report, For the Year Ending September 30, 2010, Weston & Gregory, P.A.

² Town of Pierson FY 2010/2011 Annual Budget

³ Town of Pierson, Florida, Annual Financial Reports, For the Years Ending September 30, 2006 through September 30, 2010, Weston & Gregory, P.A.

2. Franchise Fees

Franchise fees are monies paid to the Town by the private utilities for the privilege of doing business in the Town of Pierson. The Town assesses franchise fees on electric and solid waste collection. Budgeted revenue from franchise fees in 2010-11 is \$103,574 or 14 percent of all revenues.

3. Electric Utilities Tax

Tax on electric service is paid by the user. Budgeted revenue from this source in FY 1010-11 is \$41,140 or 5 percent of all revenues.

4. Licenses, Fees and Permits

Included in this category are fees collected by the Town for occupational licenses, building permits, alcoholic beverage licenses and mobile home licenses. Budgeted revenue from these sources in FY 1010-11 is \$6,700 or less than 1 percent of all revenues.

5. Building/Land Lease Income

The Town receives rental income from the bank that is co-located in the Town Hall building, from the Water Department for use of Town owned buildings and from a land lease to a not-for-profit clinic. Budgeted revenue from these sources for FY 1010-11 is \$51,200 or 7 percent of all revenues.

6. Miscellaneous Revenue

Miscellaneous revenue includes any revenue that is not in one of the other categories and primarily consists of fees charged for the use of Town owned facilities, aircraft storage at the airport, surplus equipment sales, interest income and copying and notary fees. Budgeted revenue from these sources for FY 2010-11 is \$15,500 or 2 percent of all revenues.

7. Impact Fees

These fees are charged in advance of new development and are designed to pay for infrastructure needs, but not operating costs, which directly result from new development. Impact fees must be equitably allocated to the specific group(s) which will directly benefit from the capital improvement, and the assessment levied must fairly reflect the true costs of these improvements. Currently, the Town is not assessing impact fees.

8. Special Assessments

Special assessments may be levied against those who directly benefit from a new service or facility. Funds collected from such assessments are used to finance the service or facility benefiting a special group, need, or area. The Town currently has no special assessments used to fund or finance new capital improvements that address infrastructure needs evaluated within the Comprehensive Plan.

9. Bonds The Town has the ability to issue bonds in order to finance capital improvements. The following bond types are available to the Town:

a. **General Obligation Bonds.** These bonds are backed by the full faith and credit of a local government, and are required to be approved by voter referendum. General obligation bonds offer lower interest rates than other bonds since they are secured by the taxing power of the government. Revenues collected from ad valorem taxes and other sources of general revenue are used to service the government's debt. Capital improvements financed through general obligation bonds should benefit the Town as a whole rather than particular areas or groups. Currently, the Town does not have issued any General obligation Bonds.

b. **Revenue Bonds.** Revenue bonds, unlike general obligation bonds, are financed by those directly benefiting from the capital improvement. Revenue obtained from the issuance of these bonds is used to finance publicly-owned facilities such as water and sewer systems. Charges collected from the users of these facilities are used, in turn, to retire the bond obligations. In this respect, the capital project is self-supporting. Interest rates tend to be higher than for general obligation bonds and the Town Council without voter referendum may approve issuance of the bonds. User fees collected are retained in a special fund to repay debt service. Similarly, the borrowed funds are maintained in a separate fund earmarked for the specific improvements for which the funds were borrowed. The Town does not have any revenue bonds payable through the General Fund. The Town used a revenue bond to finance the construction of its potable water system which is discussed under the Water Fund which follows this section

c. **Industrial Revenue Bonds.** This type of bond is issued by a local government, but is actually assumed by companies or industries that use the revenue for construction of plants or facilities. The attractiveness of these bonds to industry is that they carry comparatively low interest rates due to their tax-exempt status. The advantage to the local government is that the private sector is responsible for retirement of the debt and that new employment opportunities are created in the community.

10. General Fund Intergovernmental Transfers -State and County Shared Revenues

These are annual disbursements from the State and County derived primarily from taxes and license fees, including sales taxes, cigarette taxes, alcoholic beverage license fees, occupational license fees, and motor fuel taxes. Included in this account are Community Development Block Grant monies that are distributed to the Town by the County. Budgeted revenue from these sources for FY 2010-11 is \$287,382 or 38 percent of all revenues.

11. County Intergovernmental Transfers

These revenues come from County issued occupational licenses, traffic citations issued by the sheriff's Department and from the Supervisor of Elections. Budgeted revenue from these sources for FY 2010-11 is \$2,750 or less than 1/2 percent of all revenues.

12. State Intergovernmental Transfers

a. **Local Option Gas Tax** - These 6-cent and 5-cent per gallon taxes county-wide are

allocated to the Town based upon an inter-local agreement with Volusia County. The distribution formula is based on a population formula that is updated periodically. Budgeted revenue from these sources for FY 2010-11 is \$47,679 or 6 percent of all revenues.

b. State Revenue Sharing - The Municipal Revenue Sharing program is based on a percentage of taxes and user fees collected by the State of Florida and allocated based on a formula that considers population, sales tax collections and relative ability to raise revenue. Budgeted revenue from these sources for FY 2010-11 is \$63,825 or 8 percent of all revenues.

c. State Sales Tax – A portion of the State sales tax revenues is distributed directly to the Town for the purpose of providing relief from ad valorem and utility taxes and to provide revenue for local programs. The allocation formula is computed by dividing the Town's total population by the sum of the County's population plus two-thirds (2/3) of the County's unincorporated population. Budgeted revenue from this source for FY 2010-11 is \$116,378 or 15 percent of all revenues.

d. Communications Services Tax – The Simplified Communications Services tax allows both the state and local communications services tax to be imposed on a broad base of telecommunications and cable services and does not discriminate between services or providers. The tax base includes transmission of voice, data, audio, video or other information services, including cable services. The State of Florida is primarily responsible for collecting the tax and remitting it to the various local agencies. Budgeted revenue from this source for FY 2010-11 is \$52,221 or 7 percent of all revenues.

Water Fund Revenue Sources

1. User Charges, Connection and Equipment Fees

Users of the potable water system are charged: fees based on water usage; hook up fees; reconnect fees; late fees and equipment charges. Nearly all of the Town's Water System Enterprise Fund revenues are derived from these sources. A \$220 connection fee is imposed on every new connection. Budgeted revenue from these sources for FY 2010-11 is \$250,500 or 93 percent of all revenues.

2. Cellular Antenna Lease

The Town leases space on its water tower to a cellular phone company for its antennas. Budgeted revenue from this source for FY 2010-11 is \$19,800 or 7 percent of all revenues.

LOCAL POLICIES AND PRACTICES

Because the Town of Pierson does not own nor operate a central wastewater collection and treatment system or solid waste collection and disposal facilities, the City has not heretofore established policies and/or practices related to location, construction, extension and increases in capacity of those facilities. Neither has the City established practices or policies relating to the location, construction, extension and increases in capacity of streets and stormwater

management facilities. Expansion of existing open space and recreation facilities and the acquisition of new open space and recreation facilities have generally occurred as “opportunities” have arisen.

Level of Service Standards (LOS)

An LOS standard is a performance measure used to evaluate the extent to which a public facility or service is accommodating the demands placed on that system. In the State of Florida, LOS is monitored for transportation, recreation and open space, potable water, sanitary sewer, solid waste, stormwater drainage, and public schools. An LOS standard sets the expectations for performance of a particular public facility or service that is maintained by the City or other governmental entity. These standards then become criteria for evaluating new development applications, and for issuing development orders or permits to ensure adequate facility capacity is maintained concurrent with future development.

LOS standards can affect the timing and location of development by encouraging development in areas where excess capacity may exist. On the other hand, development will not be permitted unless needed facilities and services are provided. Such provision and development may occur in phased sequence over time.

Within the other elements of this Plan, the following LOS standards have been established:

Traffic Circulation	
Collector Roads	LOS C at peak hour
Minor Arterial Roads	LOS C at peak hour
Principal Arterial Roads	LOS C at peak hour
Sanitary Sewer Service	Applicable standards of the Florida Dept. of Health and Rehabilitative Services for on-site sewage disposal systems
Potable Water Service	56 gallons per capita per day
Solid Waste Collection and Disposal Service	1.8 pounds per capita per day
Stormwater Management	First inch of rainfall shall be retained; Discharge hydrograph for post development conditions shall be maintained within 10 percent, in terms of peak flow and total volume, of the predevelopment conditions; peak discharge from post development conditions shall not exceed peak discharge from predeveloped conditions for 100-year frequency storm of 24-hour duration.
Open Space and Recreation	
Equipped Tot Lot	.5 acres per 1000 population

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Neighborhood Parks	1.9 acres per 1,000 population
Community Parks	2 acres per 1,000 population

Schools (<i>Per adopted PSFE, 2008</i>)	Elementary Schools: 115% of permanent FISH capacity for the concurrency service area
	K-8 Schools: 115% of permanent FISH capacity for the concurrency service area.
	Middle Schools: 115% of permanent FISH capacity for the concurrency service area
	High Schools: 120% of permanent FISH capacity for the concurrency service area
	Special Purpose Schools: 100% of permanent FISH capacity

Impact Fees

The Town recognizes the use of impact fees to be a prudent and equitable means to fund certain basic facilities required by new development. However, no Impact fees are currently assessed by the Town.

Volusia County assesses a road impact fee, a portion of which may be returned to Pierson for funding high priority road improvement projects. However, Town's roads must compete for these funds against road improvement needs throughout a relatively broad, multi-jurisdictional area.

Subdivision Exactions

New land subdivisions are approved by the Town only when all on-site facilities necessary to support the contemplated uses are installed by the subdivider. Typically, these on-site facilities include paved streets, sidewalks, drainage retention and conveyance structures, potable water distribution facilities, and street lighting. When it is necessary or desirable to oversize facilities to serve future developments, the Town will generally cover the costs above what would be incurred by the subdivider to provide only the capacity the development requires.

User Charges and Connection Fees

User charges and connection fees are designed to recoup the costs of operating, maintaining and improving public facilities or services by charging those who benefit from them. Pierson employs a connection fee on new water users and user charges for potable water. Also, the

Town imposes user charges to cover some costs relating to the community center and airport.

Moratoria

A moratorium may temporarily halt development for a specified period of time until necessary services or facilities can be provided. It may be imposed on building permits, development approvals and utility connections. Florida courts have found development moratoria to be a valid exercise of last resort for the protection of local public health, safety, and welfare when adopted in accordance with applicable procedures. Additional considerations in adopting a moratorium include:

- (1) Determining the legal status of existing permit applications and approvals to determine the extent of "vested rights" for developments approved prior to ordinance adoption;
- (2) Specifying the geographic extent of the moratorium (whether it will be jurisdiction-wide, or limited to specific hazard areas or areas with existing service inadequacies); and
- (3) Specifying the time frame and conditions under which the moratorium will be imposed.

Special Assessments

Special assessment districts may be established to fund projects benefiting a particular area. This approach is commonly used to fund street paving and drainage improvements in existing subdivisions. The advantage of this approach is that only property owners who benefit directly from the improvements are required to pay.

Borrowing

The extremely high cost of many capital improvements requires the Town to occasionally resort to borrowing, either through short-term or long-term financing. Short-term financing, perhaps through local banks, is one option available to raise moderate amounts of required revenue. Larger amounts are borrowed through issuance of long-term bonds. Borrowing can be used in conjunction with special assessment districts, thereby assuring a steady stream of revenues for repayment of principal and interest as well as other direct costs.

It is the Town's policy that borrowing will be considered only for financing one-time capital improvements which will benefit the residents of Pierson, when project life will be longer than the term of the financing, and when specific resources are found to be sufficient to repay the debt. The Town's Charter does not place a limitation on debt; however, the tradition has been to hold annual payments on short term debt to less than 5 percent of the budget.

The Town currently has only one outstanding bond issue which is more fully described in the next section. This is a revenue bond issue which does not constitute general obligation or indebtedness to the Town. The Town does not have any general obligation bond debt. General obligation bond issues, which must be approved by voter referendum, would be secured by the taxing power of the Town. There is no legal limit on debt margin in the State Constitution, the Laws of Florida, or the Town Charter.

FISCAL ASSESSMENT

This section estimates future revenues which the Town may use for capital improvements, then compares these with anticipated expenditures for capital improvements.

Accounting System

A realistic assessment of Pierson's capacity to finance capital improvements requires an understanding of the Town's accounting system, practices and financial obligations. The accounting system and practices of the Town conform to generally accepted accounting principles applicable to local governments. Some of the significant features of the accounting system and accounting policies of the Town are described below:

Fund Accounting

The accounts of the Town are organized on the basis of funds and account groups, each of which is considered a separate accounting entity. The operations of each fund are accounted for with a separate set of self-balancing accounts that comprise its assets, liabilities, fund equity, revenues and expenditures, or expenses, as appropriate. Government resources are allocated to and accounted for in individual funds based on the purposes for which they are to be spent and the means by which spending activities are controlled. As stated previously, the Town has two funds, the General Fund and the Water Fund.

General Fund- The General Fund is the general operating fund of the Town. It is used to account for all financial resources, except those required to be accounted for in the Water Fund. General Fund revenues totaled \$884,066 during FY 2009-2010. Operating expenditures in the General Fund amounted to \$772,430. A breakdown by major functions of the Town is shown in Table IX-3. Ordinarily, the Town tries to maintain an unrestricted reserve of 10 to 20 percent of the current budget to cover unforeseen emergencies. At the end of FY 2009-2010, the Town had an unrestricted reserve of \$355,075.⁴

**TABLE IX-3
GENERAL FUND EXPENDITURES BY MAJOR FUNCTIONS – FY 2009-2010⁴
Town of Pierson, Florida**

Function	Amount	Percent of Total
General Government	\$212,426	27.50
Public Safety	268,101	34.71
Transportation	264,974	34.30
Culture & Recreation	<u>26,929</u>	<u>3.49</u>
Totals	\$772,430	100.00

Water Fund- The Town established a Water System Enterprise Fund to support the financial operation of the Town's municipal water system. An enterprise fund is used to account for operations that are financed and operated in a manner similar to a private business enterprise --

⁴ Town of Pierson, Florida, Annual Financial Report, For the Year Ending September 30, 2010, Weston & Gregory, P.A.

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where the intent of the governing body is that the costs (expenses) of providing goods or services to the general public on a continuing basis be financed or recovered primarily through user charges. Debt recorded in this Fund is paid from Enterprise Fund assets. Minimum reserves for debt services are maintained in accordance with bond ordinance requirements.

As of September 30, 2010, the Town had a balance of \$479,830 in its Water Fund. Table IX-4 shows the debt service on the Town's outstanding revenue bond Issue. This issue was made in 1991 to fund construction of the Town's potable water system. As previously noted, this bond issue does not constitute general obligation or Indebtedness of the Town.

General Fixed Assets- All fixed assets of the Town, except those fixed assets of the Enterprise Fund, are accounted for in this fund. As of September 30, 2010, the General Fixed Assets of the Town were \$1,936,041. This amount represents the original cost or the estimated cost of the assets and bears no relation to their present value. The valuation for streets, sidewalks, airport runways and taxiways is not included. Depreciation expense is not recognized in the General Fund expenditures.

General Long-Term Debt -This fund is used to account for outstanding principal balances on any long-term liabilities not accounted for in the Enterprise Fund. Debt recorded in this fund is paid from the General Fund. The Town has no outstanding General Long-Term Debt.

**TABLE IX-4
WATER FUND REVENUE BOND
SCHEDULE OF DEBT SERVICE REQUIREMENTS FY 2009/10 through FY 2028/29
Town of Pierson, Florida**

Fiscal Year	Balance	Principal	Interest	Payment
2009/10	760,000	21,000	45,600	66,600
2010/11	739,000	22,000	44,340	66,340
2011/12	717,000	24,000	43,020	67,020
2012/13	693,000	25,000	41,580	66,580
2013/14	668,000	26,000	40,080	66,080
2014/15	642,000	28,000	38,520	66,520
2015/16	614,000	30,000	36,840	66,840
2016/17	584,000	32,000	35,040	67,040
2017/18	552,000	33,000	33,120	66,120
2018/19	519,000	35,000	31,140	66,140
2019/20	484,000	38,000	29,040	67,040
2020/21	446,000	40,000	26,760	66,760
2021/22	406,000	42,000	24,360	66,360
2022/23	364,000	45,000	21,840	66,840
2023/24	319,000	47,000	19,140	66,140
2024/25	272,000	50,000	16,320	66,320
2025/26	222,000	53,000	13,320	66,320
2026/27	169,000	57,000	10,140	67,140
2027/28	112,000	60,000	6,720	66,720
2028/29	52,000	52,000	3,120	55,120
	Totals	739,000	514,440	1,322,040

Revenue and Expenditure Projections

Table IX-5 shows the Town's actual revenues and expenditures for both the General Fund and Water Enterprise Fund for FY 2005/2006 through FY 2009/2010. Table IX- 6 is the Town's 5-Year Capital Improvements Program, CIP. Included in the CIP are the estimated costs for capital improvements to the Town's potable water supply system. The General Fund balances at end of the fiscal years shown in Table IX-5 and the CIP, Table IX-6, represent unrestricted cash and cash equivalents and monies held in certificates of deposit carried over from the prior fiscal year, plus or minus budget surpluses/deficits for the current fiscal year and interest on deposits. For the Water Fund, fund balances, plus or minus surpluses/deficits for the current fiscal year, plus interest on deposits, are shown for both unrestricted funds and restricted, monies reserved for revenue bond payments.

It is important to note that the projections are not intended for budgetary purposes. They are intended only to give a general indication of the financial feasibility of the Town's Comprehensive Plan. Revenues, not including ad volorem, and expenditures, not including water system capital improvements, are projected to increase 2.7 percent per year based on the current Consumer Price Index, CPI.⁵

The Plan's only capital improvements, the drilling of new potable water wells and installation of accessory equipment and improvements to the distribution are shown as being funded in FY 2010/11 and FY 2011/12 and FY 2013/14 and FY 2014/15 respectively. While the wells and accessory equipment are proposed to be funded by unrestricted fund reserves, improvements to the distribution system are proposed to be funded by a new revenue bond. Table IX-6 gives the option of paying off the existing revenue bond in any fiscal year from FY 2010/11 through FY 2014/15 and shows what the balance of cash remaining. In the event new revenue bond financing is not an option, alternatives, or combinations thereof, available to the Town include: (1) Impact fees for potable water; (2) special municipal benefit or taxing districts; (3) additional user fees; (4) identification and charging for indirect costs of services; (5) joint public-private construction of water system's improvements; and (6) borrowing from General Fund reserves.

Debt Capacity

Pierson's projected debt capacity based on General Fund revenues shown in Table IX-5. The capacity is limited by the 10 mil cap on property taxes established by State law. An absolute maximum of 15% of General Fund revenues could be allocated to debt service, although this level of debt is definitely not recommended. The total amount borrowed with this level of debt service would depend on the interest rate and number of years required to repay the debt. There is no limit on revenue bond debt since this type of debt is covered by dedicated revenues. Also general obligation bond issues approved by referendum are not subject to a limit because special tax levies provide for retirement of the bonds. High levels of debt of this type, however, may result in lower bond ratings. Annual increases in assessed value are estimated at 2%, two percent, per year but this may be an optimistic forecast if values do not rise or possibly fall depending on whether and/ or when the real estate market recovers.

⁵ US Bureau of Labor Statistics, CPI Detailed Report, March, 2011

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**TABLE IX-5
HISTORIC REVENUES AND EXPENDITURES FY 2005/2006 – FY 2009/2010⁶
TOWN OF PIERSON**

General Fund

Revenues	FY 2005-2006	FY 2006-2007	FY 2007-2008	FY 2008-2009	FY 2009-2010
Ad valorem taxes	182,076	185,555	182,359	224,686	257,300
Gasoline Taxes	51,635	52,882	47,400	47,128	46,277
Franchise Fees	91,170	92,735	91,867	101,741	110,609
Utility Taxes	82,059	90,172	89,653	97,774	96,583
Licenses/Permits	30,098	51,450	13,659	18,669	5,453
Intergov. Revenue	282,654	395,289	196,829	215,702	298,598
Charges for Services	7,931	6,645	10,386	9,835	12,000
Fines & Forfeitures	922	611	302	167	420
Misc. Revenues	29,351	42,187	58,698	58,954	56,826
Total Revenues	757,896	917,526	691,153	774,656	884,066
Expenditures					
General Government	167,924	189,282	189,033	101,636	204,832
Public Safety	212,399	253,361	216,953	288,187	268,101
Public Works-Streets	226,862	215,158	239,927	249,351	231,474
Public Works-Airport	229,375	217,562	3,367	2,921	2,417
PW-Parks & Rec.	6,016	6,415	8,489	7,215	4,173
PW-Comm. Bldg.	11,644	6,674	3,406	4,454	9,428
Capital Outlay ⁷	185,460	248,043	145,022	190,280	46,442
Total Expenditures	998,256	932,258	798,734	844,044	762,694
Fund Balance	480,784	441,093	366,596	378,414	460,076

Water Enterprise Fund

Revenues	FY 2005-2006	FY 2006-2007	FY 2007-2008	FY 2008-2009	FY 2009-2010
Water Service Fees	254,905	264,644	255,248	257,221	266,987
Non Operating Rev.	28,990	37,801	44,965	36,757	23,419
Total Fund Revenues	283,895	302,445	300,213	293,978	290,406
Expenditures					
Bond Repayment	67,000	67,040	67,020	66,940	66,600
Operating Expenses	226,167	238,556	240,142	288,609	288,763
Total Expenditures	293,167	305,596	307,162	355,549	355,363
Fund Balances					
Restricted Fund	252,203	326,930	333,495	148,744	151,696
Unrestricted Fund	546,915	554,219	622,402	805,364	778,607

⁶ Town of Pierson, Florida, Annual Financial Report, For the Years Ending September 30, 2006 -2010, Weston & Gregory, P.A.

⁷ Represents CDBG grant monies that were received from the County and expended for local road maintenance.

Town of Pierson Comprehensive Plan
Chapter IX Capital Improvements Element Data Inventory and Analysis

**TABLE IX-6
FIVE YEAR CAPITAL IMPROVEMENT PROGRAM FY 2010/2011 – FY 2014/2015
TOWN OF PIERSON**

General Fund

Revenues	FY 2010-2011	FY 2011-2012	FY 2012-2013	FY 2013-2014	FY 2014-2015
Ad valorem taxes	257,097	257,000	257,000	257,000	257,000
Gasoline Taxes	47,526	48,821	48,810	50,127	51,481
Franchise Fees	113,595	116,663	119,812	123,047	126,370
Utility Taxes	99,191	101,869	104,619	107,444	110,345
Licenses/Permits	5,600	5,751	5,907	6,066	6,230
Intergov. Revenue	306,660	314,940	323,443	332,176	341,145
Charges for Services	10,111	10,383	10,664	10,952	11,247
Fines & Forfeitures	431	443	455	467	480
Misc. Revenues	58,360	59,936	61,554	63,216	64,923
Total Revenues	898,571	915,806	932,264	950,495	969,221
Expenditures					
General Government	172,457	175,906	180,656	185,533	190,543
Public Safety	275,339	282,773	290,408	298,249	306,302
Public Works-Streets	237,724	244,143	250,734	257,504	264,457
Public Works-Airport	2,482	2,549	2,618	2,689	2,761
PW-Parks & Rec.	7,452	7,653	7,860	8,072	8,290
PW-Comm. Bldg.	7,252	7,448	7,649	7,855	8,068
Capital Outlay	58,981	60,573	62,209	63,889	65,614
Total Expenditures	761,687	781,045	802,134	823,791	846,035
Fund Balance⁸	410,076	544,837	674,967	801,671	924,857

Water Enterprise Fund

Revenues	FY 2010-2011	FY 2011-2012	FY 2012-2013	FY 2013-2014	FY 2014-2015
Bond Proceeds				800,000 ⁹	800,000
Water Service Fees	267,000	274,209	281,612	289,216	297,025
Non Operating Rev.	75,347 ¹⁰	24,846	25,591	26,359	27,150
Total Fund Revenues	366,469	299,055	307,203	1,115,575	1,124,175
Expenditures					
Bond Repayment (P&I)	66,230	66,900	66,455		8,592 ¹¹

⁹ New revenue bond in the amount of \$1,600,000, distributed over two years, to finance distribution system improvements

¹⁰ Includes repayment of loan from Water Fund of \$50,000

¹¹ Estimated annual payment of new revenue @5% interest amortized over a 30 year term, actual terms may vary

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System Improvements	70,000	300,000		800,000	800,000
Operating Costs	165,560	173,567	181,790	190,235	198,908
Total Expenditures	301,790	540,467	248,245	990,235	1,007,500
Net Increase (Decrease) in Cash	64,679	(241,412)	58,958	125,340	116,675
Total Cash & CD's Beginning	930,303	994,982	753,570	812,528	937,868
Total Cash & CD's Ending	994,882	753,570	812,528	937,868	1,054,543
Payoff Existing Bond¹²	717,000	693,000	668,000	642,000	614,000
Balance of Cash Remaining After Payoff	277,982	60,570	144,528	295,868	440,543

**TABLE IX- 7
PROJECTED DEBT CAPACITY (GENERAL FUND)
Town of Pierson, Florida**

Fiscal Year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Assessed Value*	48,132,886	49,095,544	50,077,455	51,079,004	52,100,584	53,142,600
Revenues 10 mil cap	481,323	490,955	500,775	510,790	521,006	531,426
15% Maximum	72,198	73,643	75,116	76,619	78,151	79,714

¹² Shown for each fiscal year depending on which year Town may opt to pay off existing revenue bond

**CHAPTER IX
CAPITAL IMPROVEMENTS ELEMENT**

GOALS, OBJECTIVES AND POLICIES

Goal IX-1 - Capital improvements needed to support the Future Land Use Element shall be provided in a timely and cost efficient manner, and in a manner that assigns the costs of such improvements fairly and equitably.

Objective IX-1.1 - The Town shall use the Capital Improvement Element to correct existing deficiencies, to accommodate desired growth, and to replace worn-out and obsolete facilities, in accordance with the 5-year schedule of capital improvements included in the Data, Inventory and Analysis for this element.

Policy IX-1.1.1 - The Town shall include all projects identified in the other elements of this Plan and determined to be of relatively large scale and high cost (\$10,000 or greater) within the 5-year schedule of capital Improvement projects of this element.

Policy IX-1.1.2 - First priority shall be given to those projects that are intended to correct existing deficiencies.

Policy IX-1.1.3 - The following additional criteria shall be used as the basis for prioritizing expenditures for capital Improvements (in order of highest to lowest priority):

1. Needed for protection of the public health or a safety problem;
2. Needed for protection of the environment;
3. Needed to secure a public investment;
4. Needed to match funds from an outside source;
5. Needed to accommodate new development and redevelopment consistent with the Comprehensive Plan;

Policy IX-1.1.4 - Capital facilities shall be regularly inspected, and replacement or renewal shall be scheduled so that level of service standards are maintained.

Policy IX-1.1.5 - The Town shall coordinate transportation Improvements with Florida Department of Transportation, local and regional plans, and work with other entities to try to acquire advanced rights-of-way for transportation projects as funds are available.

Policy IX-1.1.6 - The Town shall comply with current Florida Department of Transportation criteria for access management and rights-of-way acquisition for long range transportation projects on State roadways, including notification of the Department of Transportation when proposed development orders would interfere with future right-of-way needs of the Department.

TOWN OF PIERSON COMPREHENSIVE PLAN
CHAPTER IX CAPITAL IMPROVEMENTS ELEMENT GOALS, OBJECTIVES AND POLICIES

Objective IX-1.2 - The Town shall continue to implement its concurrency management system to ensure future development will bear a proportionate cost of facility improvements necessitated by the development in order to maintain the adopted LOS standards.

Policy IX-1.2.1 - Prior to approval of a building permit or its functional equivalent, the Town determines whether adequate water supplies will be available to serve the new development no later than the anticipated date of issuance of a certificate of occupancy. The Town shall consider information such as the current potable water demand, including capacity for approved projects not yet built, the amount of water necessary to meet the growth projections for the year; the amount of water withdrawals allowed and remaining through the consumptive use permit issued by the water management district; the capacity of available facilities; and any capital improvements schedule projects scheduled to come online during the development time frame of the project.

Policy IX-1.2.2 - All applications for future land use map amendments that would permit a potential increase in intensity or density of development will be required to provide data and analysis to demonstrate that adequate water supply and adequate public water facilities will be available for future population water demand associated with the land use map amendment.

Policy IX-1.2.3 - The Town shall continue to require construction of roads, drainage structures and other necessary infrastructure improvements as a condition of subdivision plat approval.

Policy IX-1.2.4 - The Town shall consider alternative ways to allocate the costs of new public facilities on the basis of the benefits received by existing and future residents.

Objective IX-1.3 - The Town shall manage its fiscal resources to ensure the provision of needed capital improvements for previously Issued development orders and for future development and redevelopment.

Policy IX-1.3.1 - Prior to issuing certificates of occupancy, the Town shall provide for all public facilities needed to serve development for which development orders were previously issued.

Policy IX-1.3.2 - In providing capital Improvements financed by general obligation bonds, the Town shall limit the ratio of debt service to no more than 15 percent of General Fund revenues.

TOWN OF PIERSON COMPREHENSIVE PLAN
CHAPTER IX CAPITAL IMPROVEMENTS ELEMENT GOALS, OBJECTIVES AND POLICIES

Policy IX-1.3.3 - By 2012, the Town shall consider enacting an ordinance requiring payment of potable water impact fees at the time of subdivision plat or final site plan approval in order to cover the costs of reserving needed capacity in potable water facilities.

Policy IX-1.3.4 - By 2012, the Town shall consider establishing one or more special assessment districts to fund local road paving.

Policy IX-1.3.5 - The Town shall continue strong efforts to secure grants for capital improvements.

Policy IX-1.3.6 - Long-term borrowing shall not be used to finance current operations or normal maintenance

Policy IX-1.3.7 - Lease-purchase methods, bonds or other debt instruments may be used as a medium-term (4 to 10 years) method of borrowing for the financing of vehicles, other specialized types of equipment, or other capital improvements. The Town shall determine and utilize the least costly financing methods available. Such debt arrangements will be repaid within the expected life of the equipment or improvement acquired.

Policy IX-1.3.8 - General obligation bonds, which require referendum, may not be used for any enterprise fund public facilities, except where the Town Council deems such action to be in the public interest to protect the health, safety and welfare of the community.

Policy IX-1.3.9 - The term of any debt issue shall not exceed the life expectancy of the capital improvement it is financing.

Policy IX-1.3.10 - Sale of revenue bonds shall be limited to that amount which can be supported from fees or other revenues not required to support General Fund operations.

Objective IX-1.4 - Decisions regarding the issuance of development orders and permits and available revenues shall be coordinated with the Town's 5-year schedule of capital improvements to maintain the adopted LOS standards.

Policy IX-1.4.1 - The Town has adopted and shall adhere to the following LOS standards in reviewing the impacts of new development and redevelopment upon public facilities:

Traffic Circulation	
Collector Roads	LOS C at peak hour
Minor Arterial Roads	LOS C at peak hour
Principal Arterial Roads	LOS C at peak hour

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CHAPTER IX CAPITAL IMPROVEMENTS ELEMENT GOALS, OBJECTIVES AND POLICIES

Sanitary Sewer Service	Applicable standards of the Florida Dept. of Health and Rehabilitative Services for on-site sewage disposal systems
Potable Water Service	56 gallons per capita per day
Solid Waste Collection and Disposal Service	1.8 pounds per capita per day
Stormwater Management	First inch of rainfall shall be retained; Discharge hydrograph for post development conditions shall be maintained within 10 percent, in terms of peak flow and total volume, of the predevelopment conditions; peak discharge from post development conditions shall not exceed peak discharge from predeveloped conditions for 100-year frequency storm of 24-hour duration.
Open Space and Recreation	
Equipped Tot Lot	.5 acres per 1,000 population
Neighborhood Parks	1.9 acres per 1,000 population
Community Parks	2 acres per 1,000 population
Schools (<i>Per adopted PSFE, 2008</i>)	Elementary Schools: 115% of permanent FISH capacity for the concurrency service area
	K-8 Schools: 115% of permanent FISH capacity for the concurrency service area.
	Middle Schools: 115% of permanent FISH capacity for the concurrency service area
	High Schools: 120% of permanent FISH capacity for the concurrency service area
	Special Purpose Schools: 100% of permanent FISH capacity

TOWN OF PIERSON COMPREHENSIVE PLAN
CHAPTER IX CAPITAL IMPROVEMENTS ELEMENT GOALS, OBJECTIVES AND POLICIES

Policy IX-1.4.2 - The Town has adopted development regulations that include a concurrency management system to ensure that adequate public facilities and services are available to accommodate new development and redevelopment and that the adopted LOS standards are maintained. Specifically, the concurrency management system includes the following provisions:

1. All applications for development orders shall demonstrate that the proposed development does not degrade adopted levels of service in the Town.
2. The latest point at which compliance is determined is the final development order. If no development order is required, the latest point to determine concurrency is the first development permit on a site. In no event shall the determination of concurrency be made later than the point when a specific plan for development, including densities and Intensities of development, is approved or when construction or physical activity on the land is authorized if a specific plan is not involved.
 - a. If a development order or permit is approved prior to authorization of construction or physical activity on the land, the approval must be conditioned upon the availability of adequate public facilities and services to serve the development prior to final approval to proceed with construction or physical activity.
3. For purposes of concurrency management the available capacity of a facility shall be determined by:
 - a. Adding together the Following:
 - (1) The total capacity of existing facilities;
 - (2) The total capacity of new facilities, if any, that will become available on or before the date of occupancy of the development. Public facility capacity shall be determined as available for potable water, sanitary sewer, solid waste, and drainage if it meets any of conditions a. through c. below. Park and recreation capacity shall be determined as available if any of conditions a. through d. are met. Road capacity shall be determined as available if any of the conditions (a) through (e) are met.
 - (a) The facility/service is in place to serve a proposed project at the time that a development order is approved.
 - (b) The facility/service will be in place at the time of project impact.
 - (c) The facility is under construction at the time that a development order is approved.
 - (d) The facility/service is the subject of a binding executed construction contract that provides for the commencement of the actual construction of the required facilities within one year of the Issuance of the development order.
 - (e) In the case of road facilities, construction of such road facilities is scheduled to commence within the first three years of the five-year schedule of capital

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improvements in the adopted Capital Improvements Element or within the first three years of the approved five-year plan of the Florida Department of Transportation

b. Subtracting From That Number The Sum Of:

(1) The demand for the service or facility created by existing development as documented in the Town's Comprehensive Plan; and

(2) The demand for the service or facility created by the anticipated completion of other approved developments, redevelopment, or other development activity.

4. Where applicable capacity cannot be shown, the following methods may be used to maintain adopted level of service:

a. The project owner or developer may provide the necessary improvements to maintain level of service.

b. The proposed project may be altered such that projected level of service is no less than the adopted level of service.

c. The Town may approve the development order with conditions agreeable to both the Town and the developer. Such conditions shall be sufficient to ensure that the impact of the development will not degrade the level of service of any facility to a point below the adopted level of service standard for such facility.

5. A determination of compliance with the provisions of this section shall be valid for as long as the development order on which the determination was based shall remain valid.

6. If it is determined that adequate capacity is available for a proposed development, a Certificate of Capacity shall be issued for such development.

7. The Town Planning Commission, with assistance from the Town staff, shall prepare an annual report on the status of public facilities. The report shall include an evaluation of each facility and service indicating:

a. the capacity available for each at the beginning of the reporting period and the end of the reporting period;

b. a comparison of actual capacity and levels of service to adopted levels of service from the Town's Comprehensive Plan, based on annual monitoring of facility and service usage;

c. a forecast of the capacity for each based upon the most recently updated schedule of capital Improvements in the Town's Capital Improvements Element and the 5-year Work Program of the Florida Department of Transportation;

d. a determination whether the Town is adhering to the adopted capital Im-

TOWN OF PIERSON COMPREHENSIVE PLAN
CHAPTER IX CAPITAL IMPROVEMENTS ELEMENT GOALS, OBJECTIVES AND POLICIES

provement program; and

e. Once approved by the Town Council, the annual report shall constitute prima facie evidence of the capacity and levels of service of public facilities for the purpose of issuing development orders during the twelve (12) months following approval of the annual report.

8. The following types of facilities and services shall be reviewed for adequacy before issuing a certificate of capacity: roads, sanitary sewer, solid waste, drainage, potable water, and recreation.

9. For those projects listed in the five year capital Improvement program which are needed to maintain adopted level of service standards, a comprehensive plan amendment shall be required to eliminate, defer or delay the construction or provision of the facility or service involved.

Policy IX-1.4.3 - Before new development or redevelopment is authorized to proceed, the Town shall require that public facilities and services needed to support the impacts of development or redevelopment are adequate. Public facilities and services needed to accommodate a development or redevelopment may be phased, or the development or redevelopment may be phased, so that the public facilities and services are adequate concurrent with the impacts of development or redevelopment.

Goal IX-2 - Provide for a financially feasible public school facilities program.

Objective IX-2.1 Level of Service Standards The Town Of Pierson shall ensure that the capacity of schools is sufficient to support residential subdivisions and site plans at the adopted level of service standard. This level of service standard shall be consistent with the level of service standard adopted in the interlocal agreement entered into by the School Board and the local governments within Volusia County.

Policy IX-2.1.1: The level of service standard adopted by Town Of Pierson shall be applied consistently by all local governments within Volusia County and by the School Board district-wide to all schools of the same type.

Policy IX-2.1.2: Consistent with the interlocal agreement, the uniform, district-wide level of service standards are set as follows using FISH capacity based on the traditional school calendar:

- Elementary Schools: 115% of permanent FISH capacity for the concurrency service area
- K- 8 Schools: 115% of permanent FISH capacity for the concurrency service area.
- Middle Schools: 115% of permanent FISH capacity for the concurrency service area

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- High Schools: 120% of permanent FISH capacity for the concurrency service area
- Special Purpose Schools: 100% of permanent FISH capacity

Policy IX-2.1.3: The following schools shall achieve the adopted level of service no later than the identified date. The level of service presented in the following table is the tiered level of service that shall apply to that school until the date noted in the table:

OBJECTIVES AND POLICIES <u>School</u>	<u>LOS</u>	<u>DATE</u>
Orange City Elementary	117%	July 1, 2012
Horizon Elementary	158%	July 1, 2012
Freedom Elementary	126%	July 1, 2012
Osceola Elementary	117%	July 1, 2012
Ortona Elementary	150%	July 1, 2012
Ormond Beach Elementary	116%	July 1, 2012
Southwestern Middle	120%	July 1, 2013
New Smyrna Beach Middle	122%	July 1, 2014

(Note: This policy designates a tiered LOS for those schools that exceed the desired levels at the end of the five- year capital improvements program.)

Objective IX-2.2 School Capital Facilities Planning

The Town Of Pierson shall cooperate with the School Board to ensure existing deficiencies and future needs are addressed consistent with adopted level of service standards for public schools.

Policy IX-2.2.1: By December 1 of each year, the Town Of Pierson shall adopt as part of its Capital Improvements Element the Volusia County School District five year work program approved in September of each year as part of the School District budget, including planned facilities and funding sources to ensure a financially feasible capital improvements program and to ensure the level of service standards will be achieved by the end of the five-year period.

Policy IX-2.2.2: The Town of Pierson shall coordinate with the School Board and adopt development conditions to ensure that future development pays a proportionate share of the costs of capital facility capacity needed to accommodate new development and to assist in maintaining the adopted level of service standards via impact fees and other legally available and appropriate methods.

CHAPTER X PUBLIC SCHOOL FACILITIES ELEMENT

INTRODUCTION On July 29, 2008, by Ordinance No. 08-07, the Town Council adopted its Public School Facilities Element, PSFE, and related amendments to both the Intergovernmental Coordination and Capital Improvements Elements, in compliance with Section 163.3191, F.S., that was in effect at that time. The Department of Community Affairs, DCA, issued a determination, in their letter dated June 26, 2008, that the proposed amendments need not be formally reviewed for consistency with Chapter 163, Florida Statutes and Rule 9J-5, Florida Administrative Code, therefore waiving its Objections, Recommendations and Comments Report, ORC, and stated that the Town may proceed with the adoption of the amendments. The amendments were transmitted to the Volusia Growth Management Commission, VGMC, per Volusia County Code, Section 90-37, and the VGMC issued a Consistency Determination on July 1, 2008.

The Town utilized the same Data and Analysis in support of the PSFE amendments that was utilized by all local governments in Volusia County and the School Board. Due to its length, 115 pages, the Data and Analysis has been omitted from this abridged version of the Town's Comprehensive Plan. A copy of the Data and Analysis is available for review by the public at Town Hall during normal business hours. Below are the Goals, Objectives and Policies for Chapter X:

Chapter X Public School Facilities Element

Goals, Objectives and Policies

Goal X-1 - Collaborate and coordinate with the School Board of Volusia County to provide and maintain a public education system which meets the needs of Volusia County's current and future population.

Objective X-1.1 – Coordination and Consistency

The Town of Pierson shall implement and maintain mechanisms designed to coordinate with the School Board to provide consistency between local government comprehensive plans and public school facilities and programs.

Policy X-1.1.1: Pursuant to the procedures and requirements of the adopted interlocal agreement, the Town of Pierson shall coordinate with the School Board on growth and development trends, general population and student projections to ensure that the plans of the School Board and the Town of Pierson are based on consistent data.

Policy X-1.1.2: At the time of transmittal of the Public Schools Facilities Element, the Town of Pierson shall develop a report of projects not subject to school concurrency and submit the report to the School Board within thirty (30) days of transmittal. The report shall include the type, number and location of residential units that have received subdivision or site plan approval and provide a projected annual rate of growth for such projects.

Policy X-1.1.3: The Town of Pierson shall provide the representative with copies of all meeting agendas and staff reports.

Objective X-1.2 – School Facility Siting and Availability

The Town of Pierson shall coordinate with the School Board on the planning and siting of new public schools and ancillary facilities to ensure school facilities are coordinated with necessary services and infrastructure and are compatible and consistent with the comprehensive plan.

Policy X-1.2.1: The Town of Pierson shall coordinate with the School Board to assure that proposed public school facility sites are consistent with the applicable land use categories and policies of the comprehensive plan. Schools shall be permitted in all future land use classifications except for the Heavy Commercial and Industrial Use and Recreation Land Use classifications.

Future Land Use Categories	
Agriculture and Rural Residential	Schools Permitted
Low Density Residential	Schools Permitted
Medium Density Residential	Schools Permitted
Medium Density Mobile Home	Schools Permitted
High Density Residential	Schools Permitted
General Retail Commercial	Schools Permitted
General Retail Commercial (Low Intensity)	Schools Permitted
Heavy Commercial & Industrial	Schools Not Permitted
Public/Institutional	Schools Permitted
Recreation Land	Schools Not Permitted

Policy X-1.2.2: Coordination of the location, acquisition, phasing and development of future school sites and ancillary facilities shall be accomplished through the procedures adopted in the interlocal agreement.

Policy X-1.2.3: The Town of Pierson and School Board will jointly determine the need for and timing of on-site and off-site improvements necessary to support each new school or the proposed renovation, expansion or closure of an existing school. If deemed necessary, the parties may enter into a written agreement as to the timing, location, and party or parties responsible for constructing, operating and maintaining the required improvements.

Policy X-1.2.4: The Town of Pierson shall encourage the School Board to land bank sites for future use as school facilities. The Town of Pierson shall coordinate with the School Board on the acquisition and use of land banked sites in the same manner as established for other sites in order to ensure adequate infrastructure is planned and constructed in advance of school construction.

Policy X-1.2.5: The Town of Pierson shall protect schools and land banked school sites from the adverse impact of incompatible land uses by providing the School District with the opportunity to participate in the review process for all proposed development adjacent to schools.

Policy X-1.2.6: In developing capital improvements plans and programs for public services, the Town of Pierson shall consider required infrastructure to service existing and proposed schools and any land banked school sites.

Objective X-1.3 – Enhance Community Design

The Town of Pierson shall enhance community and neighborhood design through effective school facility design and siting standards and encourage the siting of school facilities in order to serve as community focal points and are compatible with surrounding land uses.

Policy X-1.3.1: The Town of Pierson shall coordinate with the School Board on opportunities for the expansion and rehabilitation of existing schools so as to support neighborhoods and redevelopment.

Policy X-1.3.2: The Town of Pierson shall collaborate with the School Board on the siting of public facilities such as parks, libraries, and community centers near existing or planned public schools, to the extent feasible.

Policy X-1.3.3: The Town of Pierson shall look for opportunities to co-locate and share the use of public facilities when preparing updates to the comprehensive plan's schedule of capital improvements and when planning and designing new or renovating existing, community facilities. Co-located facilities shall be governed by a written agreement between the School Board and the Town of Pierson specifying operating procedures and maintenance and operating responsibilities.

Policy X-1.3.4: The Town of Pierson shall reduce hazardous walking conditions consistent with Florida's safe ways to school program. In conjunction with the School Board, the Town of Pierson shall implement the following strategies:

1. New developments adjacent to schools shall be required to provide a right-of-way and direct safe access path for pedestrian travel to existing and planned schools and shall connect to the neighborhood's pedestrian network.
2. New development and redevelopment within two miles of a school shall be required to provide sidewalks within or adjacent to the property for the corridor that directly serves the school or qualifies as an acceptable designated walk or bicycle route to the school.
3. In order to ensure continuous pedestrian access to public schools, the Town of Pierson shall consider infill sidewalk and bicycle projects connecting networks serving schools as part of the annual capital budget process. Priority shall be given to hazardous walking conditions pursuant to Section 1006.23, Florida Statutes.
4. The Town of Pierson shall coordinate with the Metropolitan Planning Organization to maximize the funding from the Florida Department of Transportation and other sources that may be devoted to improving pedestrian networks serving schools.

Policy X-1.3.5: The Town of Pierson and School Board shall coordinate with Volusia County Emergency Services on efforts to build new school facilities, and facility rehabilitation and expansion, to be designed to serve as and provide emergency shelters as required by Section 1013.372, Florida Statutes.

Objective X-1.4 – Coordinate Comprehensive Plan Amendment and Development Orders with School Capacity

Manage the timing of new development to coordinate with adequate school capacity as determined by the Volusia County School District.

Policy X-1.4.1: The Town of Pierson shall take into consideration the School Board comments and findings on the availability of adequate school capacity in the evaluation of comprehensive plan amendments and other land use decisions including but not limited to developments of regional impact. School Board review shall follow the policies and procedures set forth in the interlocal agreement.

Policy X-1.4.2: Amendments to the future land use map shall be coordinated with the School Board and the Public School Facilities Planning Maps.

Policy X-1.4.3: Where capacity will not be available to serve students from the property seeking a land use change or other land use determination that increases residential density, the Town of Pierson shall not approve the proposed land use change until such time as the School Board can find that adequate public schools can be timely planned and constructed to serve the student population or that the applicant has provided adequate mitigation to offset the inadequacies in anticipated school capacity.

Policy X-1.1.4: The Town of Pierson shall meet at least annually with representatives from the School District and the other local governments in Volusia County to review the Public School Facilities Element including enrollment projects. The timing and content of these meetings shall be done according to the requirements and procedures set forth in the adopted interlocal agreement.

Goal X-2 – Implement Public School Concurrency

The Town of Pierson shall assure the future availability of public school facilities to serve new development consistent with the adopted level of service standards. This goal will be accomplished recognizing the School District's statutory and constitutional responsibility to provide a uniform system of free and adequate public schools and the Town of Pierson's authority for land use, including the authority to approve or deny comprehensive plan amendments, re-zonings or other development orders that generate students and impact the public school system. The Town of Pierson shall operate and maintain in a timely and efficient manner adequate public facilities for both existing and future populations consistent with the available financial resources.

Objective X-2.1 – Level of Service Standards

The Town of Pierson through coordinated planning with the School District and implementation of its concurrency management system shall ensure that the capacity of schools is sufficient to support residential subdivisions and site plans at the adopted level of service standard within the period covered by the five-year schedule of capital improvements and the long-range planning period. These standards and the concurrency management system shall be consistent with the interlocal agreement approved by the School Board and the local governments in Volusia County.

Policy X-2.1.1: The level of service standards for schools shall be applied consistently by all the local governments in Volusia County and by the School Board district-wide to all schools of the same type.

Policy X-2.1.2: Consistent with the interlocal agreement, the uniform, district-wide level-of-service standards are set as follows using FISH capacity based on the traditional school calendar:

1. Elementary Schools: 115% of permanent FISH capacity for the concurrency service area

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2. K-8 Schools: 115% of permanent FISH capacity for the concurrency service area.
3. Middle Schools: 115% of permanent FISH capacity for the concurrency service area
4. High Schools: 120% of permanent FISH capacity for the concurrency service area
5. Special Purpose Schools: 100% of permanent FISH capacity

Policy X-2.1.3: The following schools shall achieve the adopted level of service no later than the identified date. The level of service presented in the following table is the tiered level of service that shall apply to that school until the date noted in the table below:

<u>School</u>	<u>LOS</u>	<u>DATE</u>
Orange City Elementary	117%	July 1, 2012
Horizon Elementary	158%	July 1, 2012
Freedom Elementary	126%	July 1, 2012
Osceola Elementary	117%	July 1, 2012
Ortona Elementary	150%	July 1, 2012
Ormond Beach Elementary	116%	July 1, 2012
Southwestern Middle	120%	July 1, 2013
New Smyrna Beach Middle	122%	July 1, 2014

(Note: This policy designates a tiered LOS for those schools that exceed the desired levels at the end of the five-year capital improvements program.)

Policy X-2.1.4: The following schools shall be considered constrained schools at the designated LOS due to the inability to add capacity at the site and the nature of the communities they serve. Concurrency will be reviewed in the adjacent concurrency service areas and requests to increase residential densities in the constrained concurrency service areas will need to be accompanied by a plan to address school capacity.

School	LOS
Burns-Oak Hill Elementary	115%
Coronado Elementary	115%
Samsula Elementary	165%

Policy X-2.1.5: The Town of Pierson and School Board recognize and agree that short-term changes in enrollment unrelated to new development approvals can and do occur, and that students enrolling in their assigned school will be accepted consistent with the School District's constitutional obligations regardless of the utilization levels at the assigned school.

Policy X-2.1.6: If there is a consensus to amend any level of service, the amendment shall be accomplished by execution of an amendment to the interlocal agreement by all parties and the adoption of amendments to each local government's comprehensive plan. The amended level of service shall not be effective until all plan amendments are effective and the amended interlocal agreement is fully executed. No level of service standard shall be amended without a showing that the amended level of service standard is financially feasible and can be achieved and maintained within the five years of the capital facilities plan.

Objective X-2.2 – School Concurrency Service Areas

The Town of Pierson shall establish School Concurrency Service Areas as the area within which an evaluation is made of whether adequate school capacity is available based on the adopted level of service standard. Maps of the School Concurrency Service Areas are adopted in the Volusia County Interlocal Agreement for Public School Facilities Planning.

Policy X-2.2.1: The concurrency service area for elementary schools shall be the elementary school attendance boundary as represented on the map series "Public School Facilities Element Elementary School Concurrency Service Areas" adopted as part of the Volusia County Comprehensive Plan and which is incorporated herein by reference.

Policy X-2.2.2: The concurrency service area for middle schools shall be the middle school attendance boundary as represented on the map series "Public School Facilities Element Middle School Concurrency Service Areas" adopted as part of the Volusia County Comprehensive Plan and which is incorporated herein by reference.

Policy X-2.2.3: The concurrency service area for K-8 schools shall be the attendance boundary as represented on the map series "Public School Facilities Element K-8 Concurrency Service Areas" adopted as part of the Volusia County Comprehensive Plan and which is incorporated herein by reference. (Note: no K-8 schools have been established at this time.)

Policy X-2.2.4: The concurrency service area for high schools shall be as represented on the map series "Public School Facilities Element High School Concurrency Service Areas" adopted as part of the Volusia County Comprehensive Plan and which is incorporated herein by reference.

Policy X-2.2.5: The concurrency service area for special use schools shall be district wide.

Policy X-2.2.6: The concurrency service area maps designate three areas where school capacity is not anticipated for the planning period.

Policy X-2.2.7: Amendments to the School Concurrency Service Areas shall be completed according to the procedures specified in the Volusia County Interlocal Agreement for School Facilities Planning. Amendments to concurrency service areas shall consider the following criteria:

1. Adopted level of service standards shall not exceed the level of service standard within the initial five-year planning period

2. The utilization of school capacity is maximized to the greatest extent possible taking into account transportation costs, court approved desegregation plans, proximity to schools, ethnic and socio-economic diversity, subdivisions and neighborhoods, demographic changes, future land development patterns, crossing guard availability and other relevant factors.

Policy X-2.2.8 Within the central concurrency service areas all current and future students shall be assigned to schools designated for them as part of the School District's normal school assignment procedures. Requests for development orders for new development consistent with the future land use designations and existing residential zoning densities shall be evaluated for concurrency based on the assigned school and that school's concurrency service area. If adequate capacity is not available in the assigned concurrency service area, the proposed development shall be evaluated in comparison to the concurrency service areas adjacent to the assigned concurrency service area, subject to the limitations of Policy 2.3.7. The school district shall maintain a listing of assigned and adjacent concurrency service areas for each central school concurrency service area.

Policy X-2.2.9: Requests to develop properties within the central school concurrency service areas at residential densities and intensities greater than the current land use or zoning designations shall be done via a comprehensive plan amendment consistent with the Volusia County Charter provision 206 regarding school planning. The comprehensive plan amendment shall demonstrate how school capacity will be met consistent with the terms of the First Amendment to the Interlocal Agreement for Public School Facility Planning effective July 2007 and Section 206 of the Volusia County Charter. If the project area is to be annexed by a municipality, the comprehensive plan amendment shall include an amendment of the central concurrency service area boundary by Volusia County to exclude the subject parcel.

Objective X-2.3 – Procedure for School Concurrency Implementation

In coordination with the School Board the Town of Pierson will establish a process for implementation of school concurrency which includes applicability and capacity determination, availability standards and school capacity methods. The Town of Pierson shall manage the timing of residential subdivision approvals and site plans to ensure adequate school capacity is available consistent with the adopted level of service standards for public schools.

Policy X-2.3.1: School concurrency applies to residential development not otherwise exempt as specified by Policy 2.3.3.

Policy X-2.3.2: Development approval shall be issued for residential development where:

1. Adequate school capacity, as determined by the School Board, exists or will be under construction for each level of school in the affected concurrency service area within three years after the issuance of the development order allowing the residential development.
2. Adequate school facilities, as determined by the School Board, are available within an adjacent concurrency service area subject to the limitations of Policy 2.3.7.

Where capacity from an adjacent concurrency service area or areas is utilized, the impacts of development shall be shifted to that area. If capacity exists in more than one concurrency service area or school within a concurrency service area, the School District shall determine where the impacts of development shall be allocated based on the School District policies for student assignment.

3. The developer executes a legally binding commitment with the School Board and Town of Pierson to provide mitigation proportionate to the demand for public school facilities to be created by the actual development of the property as provided by Objective 2.4 and its supporting policies.

Policy X-2.3.3: The following residential development shall be considered exempt from the school concurrency requirements:

1. Single family lots of record on a recorded plat, existing as such at the time School Concurrency implementing ordinance is adopted for which otherwise would be entitled to build, shall be exempt from School Concurrency requirements.
2. Any residential development or any other development with a residential component that received approval of a Final Development Order or functional equivalent or is otherwise vested prior to the implementation date of school concurrency is considered vested for that component which was previously approved for construction and shall not be considered as proposed new residential development for purposes of school concurrency;
3. Amendments to residential development approvals which do not increase the number of students generated by the development based on the student generation rates for each school type as determined by the School District.
4. Age restricted developments that are subject to deed restrictions prohibiting the permanent occupancy by a resident under the age of fifty-five. Such deed restrictions must be recorded and be irrevocable for a period of at least thirty years.
5. Group quarters that do not generate students including residential facilities such as jails, prisons, hospitals, bed and breakfast, hotels and motels, temporary emergency shelters for the homeless, adult halfway houses, firehouse dorms, college dorms exclusive of married student housing, and religious non-youth facilities.

Policy X-2.3.4: The creation of subdivisions and/or single family lots equal to or less than ten units shall be subject to school concurrency review on a grouped basis. The Town of Pierson shall report such projects to the School Board as part of the annual planning coordination process established by the interlocal agreement and these units shall be included by the School Board in planning student allocations by school.

Policy X-2.3.5: By February 1, 2008 the Town of Pierson shall adopt a school concurrency ordinance which establishes the application procedures and process for evaluating school capacity and making concurrency determinations consistent with the provisions of the interlocal agreement.

Policy X-2.3.6: The School Board shall conduct a concurrency review that includes findings and recommendations of whether there is adequate capacity to accommodate proposed development for each type of school within the affected concurrency service

area consistent with the adopted level of service. The School Board may issue a certificate of school concurrency if sufficient capacity exists for the proposed development or the School Board may set forth conditions required to satisfy the requirements of school concurrency including proportionate share mitigation.

Policy X-2.3.7: If the adopted level of service standard cannot be met within a particular concurrency service area as applied to an application for development order and if the needed capacity is available in one or more contiguous concurrency service areas, then this capacity shall be applied to the concurrency evaluation of the application for development approval subject to the following limitations:

1. Areas established for diversity at schools shall not be considered contiguous.
2. Concurrency service areas generating excessive transportation costs shall not be considered contiguous. Excessive transportation costs are defined as transporting students requiring a transport time of fifty minutes one way as determined by School District transportation routing staff.
3. Concurrency service areas shall not be considered contiguous when the concurrency service areas are separated by a natural or man-made barrier such as a river, water body, or interstate highway that requires indirect transport of students through a third concurrency service area. (Refer to graphic examples.)
4. When capacity in an adjacent concurrency service area is allocated to a development application, assignment of the students to the school with available capacity may be accomplished by applying any of the techniques used to establish school attendance zones including modification of existing attendance zone boundaries or creation of island zones.
5. Student transportation not in conformance with the conditions established in items 1 through 4 above shall be permitted to allow student assignments based on specific educational programming options; to comply with State and Federal mandatory transfer opportunities; or for other transfer opportunities that School Board shall deem appropriate for the specific circumstances of an individual student

Policy X-2.3.8: If the adopted level of service cannot be met within a particular concurrency service area the School Board may apply one or more of the following techniques to maximize use of available capacity and provide for adequate numbers of student stations to meet current and future demand:

1. Construct new school facilities
2. Construct additions to current facilities
3. Adjust program assignments to schools with available capacity
4. Modify attendance boundaries to assign students to schools with available capacity
5. Eliminate variances to overcrowded facilities that are not otherwise restricted by State or Federal requirements.

Objective X-2.4 – Proportionate Share Mitigation

The Town of Pierson shall provide for mitigation alternatives that are financially feasible and will achieve and maintain the adopted level of service standard consistent with the School Board’s adopted financially feasible work program.

Policy X-2.4.1: In the event that sufficient school capacity is not available in the affected concurrency service area, the developer shall have the option to propose proportionate share mitigation to address the impacts of the proposed development.

Policy X-2.4.2: Mitigation shall be directed toward a permanent capacity improvement identified in the School Board’s financially feasible work program, which satisfies the demands created by the proposed development consistent with the adopted level of service standards.

Policy X-2.4.3: Mitigation shall be directed to projects on the School Board’s financially feasible work program that the School Board agrees will satisfy the demand created by the proposed development approval and shall be assured by a legally binding development agreement between the School Board, the Town of Pierson, and the applicant which shall be executed prior to the Town of Pierson issuance of the subdivision or site plan approval. If the School Board agrees to the mitigation, the School Board shall commit in the agreement to placing the improvement required for mitigation in its work plan.

Policy X-2.4.4: The applicant’s total proportionate share obligation shall be based on multiplying the number of needed student stations generated from the proposed project times the School Board’s current cost per student station plus land cost for each type of school. The applicant’s proportionate share mitigation obligation shall be credited toward any impact fee or exaction fee imposed by local ordinance for the same need on a dollar for dollar basis. (For example, if the proportionate share mitigation provides only for land, the credit is applied only against that portion of the impact fee or other exaction devoted to land costs.)

Policy X-2.4.5: The student generation rates used to determine the impact of a particular development shall be the student generation rates adopted in the most recent school impact fee study.

Policy X-2.4.6: The cost per student station shall be the most recent actual costs per student station paid by the School Board for the equivalent school facility.

Policy X-2.4.7: Mitigation options must consider the School Board’s educational delivery methods and requirements and the State Requirements for Educational Facilities and may include, but not be limited to, the following:

1. Donation of buildings for use as a primary or alternative learning facility
2. Renovation of existing buildings for use as learning facilities
3. Funding dedicated to, or construction of permanent student stations or core capacity

4. For schools contained in the School Board's adopted five-year capital facilities work program, upon agreement with the School Board, the applicant may build the school in advance of the time set forth in the five-year work program
5. Dedication of a school site as approved by the School Board
6. Up front lump sum payment of school impact fees
7. Up front payment of interest and other costs of borrowing
8. Payment of off-site infrastructure expenses including but not limited to roads, water, and/or sewer improvements
9. Payment of transportation costs associated with the movement of students as a result of overcapacity school
10. Funding assistance with acquisition of school site
11. Phasing of construction or delay of construction in order to timely plan for the availability of school capacity,
12. Establishment of an educational facilities benefit district
13. Establishment of educational facilities mitigation banks

Objective X-2.5: - Capital Facilities Planning

The Town of Pierson shall ensure existing deficiencies and future needs are addressed consistent with the adopted level of service standards for schools.

Policy X-2.5.1: In accordance with the adopted interlocal agreement the Town of Pierson shall collaborate with the School Board in locating required school sites as identified in the School Board's five, ten and twenty year capital facilities plan.

Policy X-2.5.2: The Town of Pierson shall ensure that future development pays a proportionate share of the costs of capital facilities capacity needed to accommodate new development and to assist in maintaining the adopted level of service standards via impact fees and other legally available and appropriate methods.

Policy X-2.5.3: By December 1 of each year, the Town of Pierson shall adopt as a part of its CIE the Volusia County School District five-year work program approved in September of each year as a part of the School District budget, including planned facilities and funding sources to ensure a financially feasible capital improvements program and to ensure the level of service standards will be achieved by the end of the five-year period.