ORDINANCE 2007-25

AN ORDINANCE OF THE CITY OF DUNNELLON, FLORIDA, AMENDING THE COMPREHENSIVE PLAN TO UPDATE THE FUTURE LAND USE ELEMENT; AMENDING THE COMPREHENSIVE PLAN TO UPDATE THE CONSERVATION ELEMENT; AMENDING THE COMPREHENSIVE PLAN TO ADOPT A CONCURRENCY MANAGEMENT SYSTEM; PROVIDING FOR SEVERABILITY; PROVIDING FOR THE REPEAL OF INCONSISTENT ORDINANCES; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City Council of the City of Dunnellon adopted a Comprehensive Plan on October 14, 1991, which meets the requirements of the Local Government Comprehensive Planning and Land Development Regulation Act of 1985; and

WHEREAS, the City Council of the City of Dunnellon has amended the Comprehensive Plan from time to time; and

WHEREAS, the City Council of the City of Dunnellon desires to amend portions of the Comprehensive Plan.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF DUNNELLON, FLORIDA, AS FOLLOWS:

Section 1. The Future Land Use Element of the City of Dunnellon Comprehensive Plan is hereby amended to reflect the changes set forth in Exhibit "A," attached hereto and incorporated (with deletions ~~stricken~~ and additions underlined), including the Goal, Objectives, Policies, and Future Land Use Map series as revised and updated.

Section 2. The Conservation Element of the Dunnellon Comprehensive Plan is hereby amended to reflect the changes set forth in Exhibit "A," attached hereto and incorporated (with deletions ~~stricken~~ and additions underlined) including the Goal, Objectives, and Policies, and maps, as revised and updated.

Section 3. The Concurrency Management System is hereby adopted as a component of the Dunnellon Comprehensive Plan as set forth in Exhibit "A".

Section 4. Severability. If any portion of this Ordinance shall be declared unconstitutional or if the applicability of this Ordinance or any portion thereof, to any person or circumstance shall be held invalid, the validity of the remainder of this Ordinance and the applicability of this Ordinance, or any portion thereof, to

other persons or circumstances, shall not be affected thereby. It is the specific intent of the City Council of the City of Dunnellon that the Severability as set forth above shall apply to this Ordinance.

Section 5. Repeal of Inconsistent Ordinances. Any Ordinance in conflict with this Ordinance is hereby repealed.

Section 6. Effective Date. The effective date of this plan amendment shall be the date a final order is issued by the Department of Community Affairs or Administration Commission finding the amendment in compliance in accordance with Section 163.3184(1)(b), *Florida Statutes*, whichever occurs earlier. No development orders, development permits, or land uses dependent on this amendment may be issued or commence before it has become effective. If a final order of non-compliance is issued by the Administration Commission, this amendment may nevertheless be made effective by adoption of a resolution affirming its effective status, a copy of which resolution shall be sent to the Department of Community Affairs, Division of Resource and Planning Management, Plan Processing Team.

Upon motion duly made and carried, the foregoing Ordinance was approved upon the first reading on the 13th day of November, 2007.

Upon motion duly made and carried, the foregoing Ordinance was approved and passed upon the second and final reading on the 13th day of October, 2008.

Attested by:

Dawn M. Bowne, C.M.C.
City Clerk

CITY OF DUNNELLON

Mayor 11/13/2007

Fred R. Ward 10/13/08
Mayor

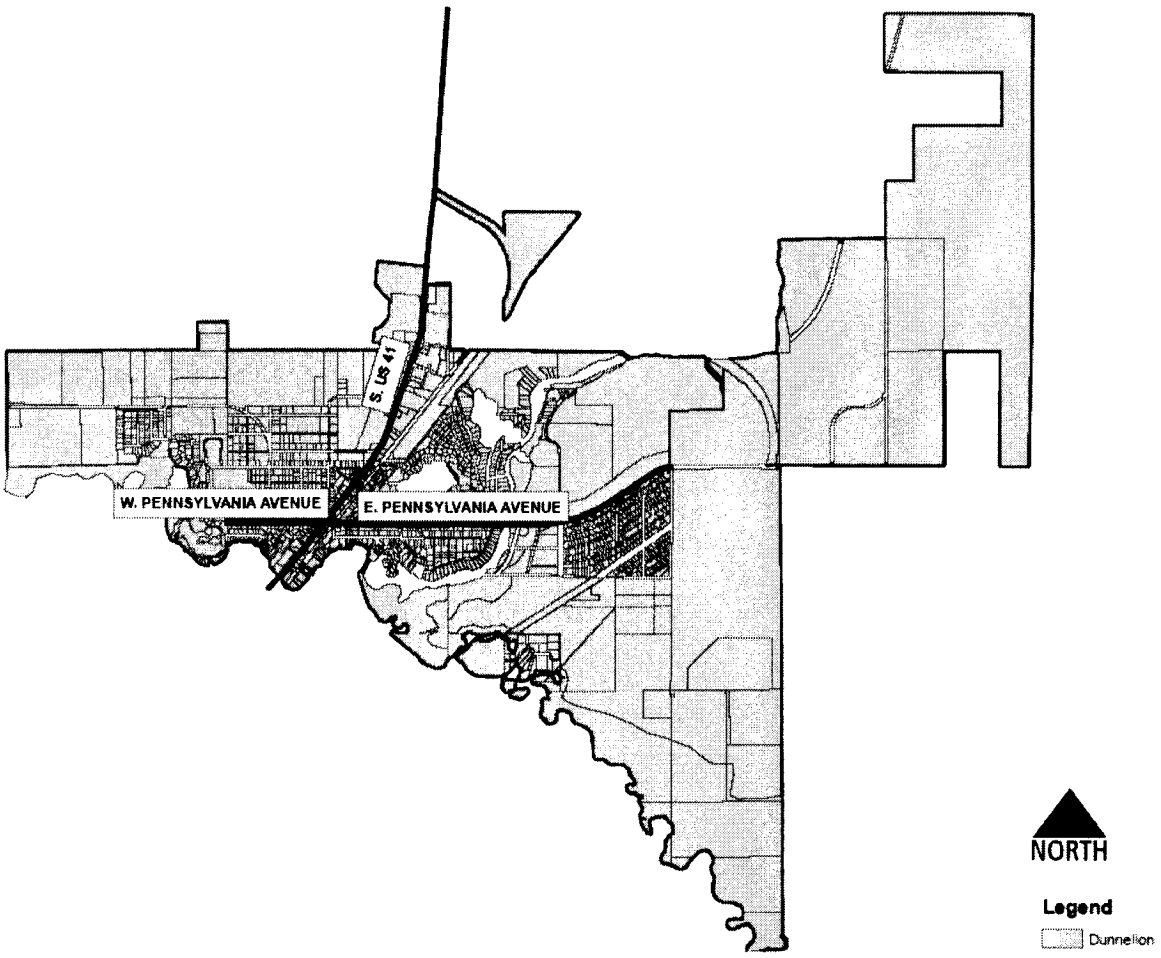
Approved as to Form and Legality
for use and reliance by the City
of Dunnellon, Florida:

for James Fowler City Attorney
Fowler & O'Quinn, P.A.
Empire Building
28 W. Central Blvd. 4th Floor
Orlando, Florida 32801
(407) 425-2684

CERTIFICATE OF POSTING

I HEREBY CERTIFY that copies of the foregoing Ordinance were posted at City Hall, the Chamber of Commerce, and the Dunnellon Library, in the City of Dunnellon, Florida, and on the 5th day of November 2007 and on the City's Official Website this 1st day of November 2007.

Dawn M. Bowne, CMC.
City Clerk


S. US 41
W. PENNSYLVANIA AVENUE
E. PENNSYLVANIA AVENUE
NORTH
Legend
Dunnellon

COMPOSITE
EXHIBIT A

Contents of Exhibit A:

1. Proposed Amendment to the Future Land Use Element
2. Proposed Amendment to the Conservation Element
3. Proposed Concurrency Management System, including amendments to the Capital Improvements Element and the Infrastructure Element
4. Data and Analysis Report to support the proposed amendments
5. Maps that are part of the Data and Analysis Report
6. Proposed Future Land Use Map

Future Land Use Element
Proposed Goals, Objectives, and Policies

Proposed new text is underlined. Existing (adopted) text proposed to be deleted is shown with ~~strikethrough~~. Plain text without underlining or strikethrough is the existing language with no proposed changes. Please note that the existing plan format shows the word "policy" underlined. That underlining has been removed and underlining is now used only for new text.

GOAL

Through the provision of appropriate land uses, promote, protect and improve the public health, safety, and welfare of Dunnellon's residents, while maximizing economic benefits and minimizing threats to natural and man-made resources.

Objective 1:

The Future Land Use Map (FLUM) depicts the land use categories that are permissible in the City. The following policies establish the uses, densities, and intensities that are depicted on the FLUM. The City specifically intends that all development shall be consistent with the uses, densities, and intensities described below and shown on the FLUM.

Policy 1.1: The low-density residential land use category allows single-family dwelling units and customary residential accessory uses. The maximum density is 2.5 dwelling units per acre. The maximum impervious surface is forty-five (45) percent. Buildings shall not exceed forty (40) feet in height.

Policy 1.2: The medium density residential land use category allows single-family dwelling units and customary residential accessory uses. The maximum density is 5.0 dwelling units per acre. The maximum impervious surface is fifty (50) percent. Buildings shall not exceed forty (40) feet in height.

Policy 1.3: The high-density residential land use category allows multifamily dwelling units and customary residential accessory uses. Multifamily structures shall have at least two dwelling units per building. The minimum density is 5.1 dwelling units per acre and the maximum density is 12.0 units per acre. The maximum impervious surface is fifty (50) percent. Buildings shall not exceed forty (40) feet in height. Multifamily development shall be located to provide direct access to a collector road.

Policy 1.4: The commercial land use category includes retail, entertainment, eating establishments, offices, medical facilities, personal services,

trade services, wholesale and discount establishments, storage facilities, lodging establishments, recreational vehicle parks, fueling facilities, rental establishments, religious facilities, and facilities for repair and maintenance of vehicles and equipment. The maximum impervious surface is 65 percent and the maximum building height is forty (40) feet. The following standards apply to uses and locations as specified:

a. Uses such as the sale, rental, repair, storage, or maintenance of vehicles (cars, boats, trucks, motorcycles) shall be permissible only when determined to be compatible with adjacent residential uses.

b. Uses that use, generate, store, or handle hazardous materials shall be permissible only when approved as a conditional use in order to ensure appropriate location, handling, storage, and disposal of the hazardous materials.

c. Uses which occupy a single building with 80,000 or more square feet of total floor area or which occupy two or more buildings on a single parcel with a total of 100,000 square feet of total floor area shall meet the following standards:

    1) Screening of mechanical equipment, utility devices, and similar service components.
    2) Integration of accessory uses and structures into the overall design of the building and site.
    3) Specific design techniques to minimize the impact of walls longer than fifty (50) feet in length.
    4) Sign standards that ensure integration of sign design with the design of the buildings.
    5) Provision of a perimeter buffer that is 150% of the otherwise required buffer.
    6) Provision for landscaped internal pedestrian circulation.
    7) Specific design requirements for parking lots to ensure protection of native vegetation and provision of canopy trees for shade.
    8) Approval shall be only by special exception with a super majority vote.

d. Uses with drive-up or drive-through facilities shall meet the following requirements:

    1) The drive through lanes shall not be adjacent to land used or designated for use for residential development.

2) Windows for ordering or providing services shall not be located adjacent to land used or designated for use for residential development.

e. Uses located within 150 feet of the shoreline of the Rainbow or Withlacoochee River shall be limited to activities which are water dependent or water oriented. In order to be considered water dependent or water oriented, the activity shall meet at least one of the following requirements:

1) The activity requires access to the water in order to operate. Such activities as boat docks, marinas, boat rental, boat ramps, fishing piers or docks, or water recreation are typical of activities that require access to the water.

2) The activity provides public access to the water for fishing, boating, swimming, or water sports.

3) The activity provides public access for visual enjoyment of the water through a boardwalk along or adjacent to the shoreline, a pedestrian promenade adjacent to or along the shoreline, outdoor seating or dining areas adjacent to the shoreline or extending into the water as permissible by permitting agencies.

f. Recreational vehicle parks shall be subject to special design standards to ensure compatibility and safe layout of the vehicle sites and park amenities.

g. All commercial uses shall meet the following compatibility requirements:

1) Buffers will be provided to ensure compatibility between commercial and residential uses.

2) Dumpsters will be located to avoid negative impacts to adjacent residential uses.

3) Outdoor lighting will be designed and located to avoid direct illumination of adjacent properties.

4) Parking lots will be designed and located to avoid negative impacts from vehicle lights and noise to adjacent residential properties.

Policy 1.5: The traditional neighborhood land use category includes the following uses: residential, neighborhood scale commercial, neighborhood scale office, artisan uses, personal service, civic, cultural, transient lodging, bed and breakfast establishments, religious facilities, and financial services. The following location and design standards apply:

a. A single platted lot may be developed for a single use.

b. A single platted lot may contain a nonresidential use and one dwelling unit, provided that the dwelling unit is located on a second floor or to the rear or side of the business use, either attached or detached from the principal building.

c. A development proposed for two (2) or more lots may contain a single use or a mixture of uses. When mixed uses are proposed, no more than fifty (50) percent of the development shall be devoted to residential uses. When residential uses are proposed, either single-family or multifamily is acceptable. Density shall not exceed eight (8) units per acre.

d. Transient lodging and bed and breakfast uses shall be limited to an equivalent of eight (8) units per acre. Each guest bedroom shall be considered a unit.

e. Uses which have frontage on West Pennsylvania Avenue or Cedar Street may have up to twelve (12) dwelling units per acre.

f. The maximum impervious surface for all sites is sixty-five (65) percent.

g. Parcels with five (5) or more acres shall contain at least two (2) different uses. Single-use development is not permissible. Residential uses shall not exceed sixty-five (65) percent of the development site.

h. When an amendment to the Future Land Use Map is proposed to apply the traditional neighborhood land use category, a minimum of five (5) acres is required.

i. Where neighborhood scale development is proposed, no individual building shall exceed a total of 3,000 square feet of floor area.

j. The maximum height for buildings development is forty (40) feet.

k. Parking lots within the traditional neighborhood land use district shall be designed to ensure that no tier of parking includes more than ten (10) cars.

l. All uses, including accessory structures, mechanical and service equipment, and utility structures shall be integrated with the design of the principle building. Mechanical, service, and utility equipment shall be screened.

m. Nonresidential land uses within the traditional neighborhood district shall be limited to uses with a trip generation of 100 trips per 1,000 square feet of building, per fuel station, or comparable unit of measure. The trip generation calculation shall be based on the Institute of Transportation Engineers trip generation book or a similar, professionally acceptable source.

Policy 1.6: The mixed-use land use category includes the following uses: residential, neighborhood scale commercial, neighborhood scale office, artisan uses, personal service, civic, cultural, transient lodging, bed and breakfast establishments, recreational vehicle parks, religious facilities, and financial services. The following location and design standards apply:

a. A development shall contain at least three (3) of the permissible uses.

b. A development site with ten (10) or more acres may have community scale commercial or office uses.

c. Where neighborhood scale development is proposed, no individual building shall exceed 3,000 square feet. The maximum height for buildings used for neighborhood scale development is forty (40) feet.

d. Where community scale development is proposed, no individual building shall exceed 30,000 square feet.

e. The maximum residential density is twelve (12) units per acre.

f. The maximum impervious surface in a mixed-use development is sixty-five (65) percent.

g. All development shall be designed to ensure compatibility with adjacent development, based on concepts such as transition of building height, buffering, building orientation, and location and

design of site features such as parking, outdoor lighting, and equipment.

h. All uses, including accessory structures, mechanical and service equipment, and utility structures shall be integrated with the design of the principle building. Mechanical, service, and utility equipment shall be screened.

i. When an amendment to the Future Land Use Map is proposed to apply the mixed-use land use category, a minimum of ten (10) acres is required.

j. A recreational vehicle park shall be subject to specific design standards to ensure compatibility and safe layout of vehicle sites and amenities. The maximum density of RV sites within a park is twelve (12) sites per acre.

Policy 1.7: The public land use category includes public schools, government offices, public works buildings and yards, community centers, and similar uses typically owned or operated by public agencies. The maximum building height is forty (40) feet.

Policy 1.8: The agriculture land use category includes agricultural and silvicultural activities. Residential dwelling units are permissible at a density of one (1) unit per ten (10) acres, except where a conservation subdivision is proposed. A conservation subdivision design allows a density of one (1) unit per five (5) acres, and requires clustering. The minimum lot area in a conservation subdivision design development is two (2) acres. A conservation subdivision shall meet the design standards set forth in Policy 1.11. The maximum building height is forty (40) feet.

Policy 1.9: The recreation land use category includes active or passive parks, community centers, and areas for recreational activities such as picnicking, jogging, cycling, hiking, golf courses, playgrounds, ball fields, ball courts, stables, swimming pools or beaches, and water related or water dependent uses such as boat ramps, fishing docks and piers, and similar outdoor recreational uses, public or private. No other uses are permissible. The maximum impervious surface is forty (40) percent. The maximum building height is forty (40) feet.

Policy 1.10: The conservation land use category is intended to protect sites that should have extremely limited development. Wetlands, designated habitats, river islands, and water bodies shall be designated in the

conservation land use category. Permissible development is limited to passive recreation, such as unpaved jogging or walking trails, picnic areas without pavilions, boardwalks, or viewing platforms. No buildings are permissible, except public restrooms. Parking areas shall be subject to the following design requirements: unless porous paving materials are used, only access aisles and handicapped parking spaces are allowed to be paved. Clearing on any sites designated as conservation land use shall be limited to the minimum needed to provide access, trails, or play areas, and in no case shall exceed ten (10) percent of a site. In no instance shall clearing of native vegetation or vegetation necessary to ensure the viability of a designated habitat be permissible.

Policy 1.11: Conservation subdivisions shall meet the following requirements:

a. Clustering of units is required. A conservation subdivision on land designated for agricultural use may have lots of two (2) or more acres.

b. Required open space is at least fifty (50) percent of the site, with at least fifty (50) percent of the open space in one (1) contiguous parcel.

c. All open spaces shall be connected to the maximum extent feasible. Whenever possible, required open space shall be adjacent to open space on adjacent parcels.

d. No more than twenty (20) percent of the open space shall be devoted to stormwater facilities.

e. Open space should be located on the most vulnerable portion of the site. There shall be no chemical applications permissible on required open space land.

f. Required open spaces shall be protected in perpetuity through recorded easements.

g. Central water and sewer treatment facilities are available.

h. Development shall be located in such a manner as to minimize the length of new roads and drives from existing public streets to the development.

i. Development shall be sited as far away as possible from water

bodies, rivers, wetlands, or other environmentally fragile features.

j. Development shall be designed to minimize site disturbance to the minimum area necessary to accomplish development. This shall include minimizing soil compaction by delineating the smallest disturbance area feasible.

k. Existing native vegetation shall be protected, whether within the designated open space or on the developed portion of a site.

Policy 1.12: Design of parking lots, sidewalks, buildings, and other impervious surfaces shall minimize connections between impervious surfaces through the following techniques. Not all techniques may be required to accomplish the requirement to minimize connections of impervious surfaces:

a. Directing flows from roof drains to vegetated areas or to rain barrels or cisterns for reuse of the water;

b. Directing flows from paved areas to vegetated areas;

c. Locating impervious surfaces so that they drain to vegetated buffers or natural areas; and

d. Breaking up flow directions from large paved surfaces.

Policy 1.13: Porous pavement materials, such as pervious concrete, pervious asphalt, or other pervious or porous materials shall be used to minimize the amount of impervious surface within all development.

Policy 1.14: All golf course siting, design, construction, and management shall implement the prevention, management, and monitoring practices, detailed in the golf course siting, design, and management chapter of the *Protecting Florida's Springs Manual – Land Use Planning Strategies and Best Management Practices (November 2002).* All golf courses shall use reclaimed water for irrigation.

~~Objective 1~~:
~~By the statutory deadline, adopt, implement and~~ Update and ~~enforce land development regulations, which manage future growth and development, incorporating innovative land development techniques, where appropriate.~~

~~Policy 1.1:~~
Policy 1.15: ~~Adopt and~~ Maintain and enforce land development regulations which

implement the adopted comprehensive plan, including:

~~A.~~

a. Regulation of use and subdivision of land, in consideration of adjacent land uses, natural and historic resources, open space and environmental constraints such as flood prone areas, soil suitability, drainage, surface and groundwater quality and stormwater management.

~~B. Require that all new subdivisions, multi-family and non-residential development provide a minimum of 30 percent pervious (porous) open space or green area, except within the Historic District.~~

~~C.~~

b. Protect wetlands, potable water well fields, natural aquifer recharge areas, endangered species, intact ecological systems, air and water quality, consistent with the requirements of the Conservation Element.

~~D.~~

c. Regulate setbacks, landscaping, on-site parking and traffic flow, signage, and pedestrian access and other impacts which protect natural and historical resources and promote quality of life.

~~E.~~

d. Provide that development orders and permits shall not be issued which result in a reduction in the level of services of public facilities adopted in this plan.

~~F. Establish~~

e. Implement site design standards for residential development of varying densities and commercial uses as designated in the Future Land Use Element and on the Future Land Use Map.

f. Protect property against wildfire and implement Best Management Practices.

g. Provide site design standards for large-scale discount, commercial, or "big box" establishments.

~~G. Land development regulations adopted to implement this plan shall be consistent with the following standards for residential densities and nonresidential uses and the standards of Table 1B:~~

~~1. **Low Density Residential (LDR)** (one 2.5 dwelling or less per acre).~~
~~*Amended by ord. 03-01*~~

~~2. **Medium Density Residential (MDR)** (up to 5.0 dwelling units per acre).~~

~~3. **High Density Residential (HDR)** (single or multi-family, 5.1 to 12.0 dwelling~~

~~units per acre).~~

4. ~~Pursuant to Florida Statutes 553.38(2) and 320.8285(5), all residential land use categories delineated on the Future Land Use Map shall allow mobile home or manufactured home placements. Provisions to be incorporated in the Land Development Regulations by May 1, 1992 shall crate zones within these categories that control minimum floor area, structural and architectural design, foundations, buffer and screening requirements, or other building requirements to discourage mobile home placement in existing or proposed residential neighborhoods whose desired character would be disrupted upon the introduction of incompatible structures. Such regulations shall not be so restrictive as to prohibit mobile homes from locating in any particular residential future land use category or from accommodating an equitable share of sites for residential development.~~
5. ~~**Residential office**: Single-family residential (up to 5 dwelling units per acre) and general office uses which are compatible with single family development. General office uses allowed shall be low volume traffic attractor including medical, dental, and other professional offices, as well as neighborhood-serving commercial, such as barber, beauty, and photography shops. This land use designation shall stipulate a range of 85 percent residential/15 percent office to 15 percent residential/85 percent office, and to maintain the residential character of the area, site design standards that maintain the residential neighborhood character, and landscape buffers between the two land uses. These criteria shall be included in the land development regulations to be adopted by May 1, 1992.~~
6. ~~**Commercial**: Personal service establishments; professional offices; trade service establishments; commercial (limited, wholesale, storage) amusements and retail stores.~~
7. ~~**Commercial-Industrial**: Wholesale business; light manufacturing or industrial plant; lumber and storage yards; canneries for citrus and vegetables.~~
8. ~~**Water-Oriented Commercial**: Commercial uses which can be carried out only on, in or adjacent to water areas because the use requires access to the water body; Commercial uses which provide goods and services that are directly associated with water-dependent or waterway uses. Commercial uses in which waterfront location can be enjoyed by the public, such as recreation, dining, etc.~~
9. ~~**Tourist-Oriented Commercial**: Primarily for residential living quarters for transient visitors and tourists. While certain uses are permitted to operate for profit, the area is not to be considered a business zone. Certain outdoor and indoor activities are permitted for the convenience of guests as a Special Exception. Certain offices that are compatible with the general character of the neighborhood shall be permitted as Special Exceptions. Such uses are limited to restaurants, overnight accommodations, rental and incidental supply shops, and other tourist-oriented small business uses. Convenience~~

stores, fast food drive-in restaurants and dock fueling facilities are strictly prohibited. All development in this land use designation shall comply with the following standards:

a. The site shall be arranged so that the view towards the site from those on the river shall not be negatively impacted. Any required parking shall not be located adjacent to the river, unless a minimum of a 10-foot wide vegetated buffer is provided adjacent to the river.
b. Landscape buffering with plant material native to the area shall be required to ensure the view from the river is not negatively impacted. Further, landscaping buffers of not less than five feet in width shall be installed adjacent to all non-commercial land uses.
c. All development shall be connected to central sewer and water.
d. Building height shall be limited to 40 feet.
e. No stormwater shall be discharged into the river, except in accordance with standards for Outstanding Florida Waters.

These guidelines shall be included in the land development regulations to be adopted by May 1, 1992.

10. **Public Use**: Churches, schools, hospitals, clinics, governmental buildings, civic clubs.
11. **Recreation**: Uses include parks and areas for recreational activities such as picnicking, jogging, cycling, hiking, golf courses, playgrounds, ball fields, ball courts, stables, swimming pools or beaches, and water related or water dependent uses such as boat ramps, fishing docks and piers, and similar outdoor recreational uses, public or private. Specifically excluded are marinas, R.V. parks, and other operations considered to be of a commercial nature, and cabin and house rentals, and other uses of a residential nature.
12. **Wetlands Conservation**: Uses shall be limited to passive recreational uses associated with access to water bodies, harmonious with the natural environment.
13. **Agricultural Uses**: Primarily agricultural uses: residential densities may be permitted up to 1 dwelling unit per 5 acre; structures must be clustered to provide 50 percent aggregate open space. In the event of conflicts between nonagricultural and agricultural uses, such agricultural uses shall be protected from complaints about such agricultural uses by nonagricultural uses.
14. **Planned Unit Development (PUD)**: Agricultural uses shall be allowed by right. Densities and intensities of use shall be limited to that allowed in the agricultural category. (*amended by ord. 96-15)* Except that higher densities and Mixed use development, including retail, commercial, residential, recreational and public uses may be allowed when all of the following standards are met:

a. Central water and central sewer facilities are required;
b. The development must undergo the PUD review process, whereby:
    i. All proposals shall provide a detailed site plan showing the intensity or

~~density of development, location of residential and nonresidential uses, proposed traffic circulation and access management, conservation and open space areas, and other features of the site; all details of the site plan shall be reviewed as a whole by the Planning Commission for the entire parcel; once the site plan is approved by the Planning Commission, any changes to the site plan must go through site plan review and approval;~~

~~ii. Parcels must be at least five acres in size to be considered for a PUD;~~

~~iii. All parcels must be environmentally sensitive to any wetlands on the site and provide upland buffers to ensure protection of water quality.~~

~~iv. The land development regulations, adopted by May 1, 1992, shall include additional design standards for this category to ensure compatibility with adjacent land uses and ensure quality development.~~

~~**Policy 1.2:** The land development regulations shall include standards for development and redevelopment of areas designated as water-oriented commercial, including:~~

~~1. Provision of stormwater treatment to meet DER standards and adopted level of service standards.~~

~~2. Zero lot line, open space credits or other innovative bonuses developed in the land development regulations that are consistent with the adopted plan, for providing public access.~~

~~3. Preference will be given to development, which combines smaller lot development into larger sites.~~

~~**Policy 1.3:**~~

Policy 1.16: The land development code shall include requirements that new development in areas of elevated radon emissions use appropriate radon resistant construction techniques, as recommended by the State of Florida.

~~**Policy 1.4a:**~~

Policy 1.17: Public schools shall be an allowable use in all residential land use categories.

Policy 1.18: All residential and nonresidential development shall be subject to site plan review procedures. Single-family homes on platted lots existing at the time of plan adoption shall not require a site plan.

Policy 1.19: The City of Dunnellon relies on the definitions in Chapter 9J-5, *Florida Administrative Code,* and in the land development regulations in the City Code of Ordinances. In addition, the following terms are defined for application to the Dunnellon Comprehensive Plan:

Best Management Practices (BMPs) means practice or combination of practices, including non-structural and structural improvements,

based on sound science and professional judgment to be the most effective and practicable means of carrying out the specified activity. BMPs are promulgated by government agencies such as the Florida Department of Agriculture and Consumer Services, the Florida Department of Environmental Protection, and the Florida Department of Community Affairs.

Naturalized plant species means vegetation that, while not native, has naturally adapted to the soils and climate of the area without direct or indirect human intervention. Acceptable species are found on the Florida-friendly plant database from the University of Florida Institute of Food and Agricultural Sciences or other similar database.

Wetlands means those areas that are saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soils. Wetlands are identified by the uniform methodology adopted in §373.421, *Florida Statutes.*

OBJECTIVE 2:
~~Adopt policies and procedures upon plan adoption, which~~ The City shall ensure the availability of suitable land for placement of utilities and facilities necessary to support proposed development, and coordinate future land use with availability of services and facilities.

Policy 2.1: New residential developments, ~~which are~~ including subdivisions, multifamily developments, or mobile home developments shall be required to provide land to meet the recreation and park needs of the residents ~~(except historical district)~~. ~~A formula will be developed in the City's land development regulations which calculates land required~~ The amount of land to be provided shall be based upon the maximum density of the development and the City's adopted level of service standards for recreation land. Single-family and duplex structures on lots platted on or before the date of adoption of this comprehensive plan and residential development proposed within the designated historic district are not required to provide land for recreation needs.

~~Policy 2.2: The City shall develop policies requiring that areas proposed for annexation provide a proportionate share of recreation facilities, in accordance with the Recreation and Open Space Element.~~ [Once land is annexed, and the Future Land Use Map is amended to include the annexed land, any development proposed for that land must meet all requirements of the comprehensive plan. Therefore, policy 2.2 is unnecessary.]

~~Policy 2.3:~~
Policy 2.2: The City shall ~~E~~establish incentives for all new water front residential

development to reserve a portion of the total development acreage to provide public access to the river. This acreage may count as part of the development's share of providing recreation facilities.

~~Policy 2.4:~~

Policy 2.3: All development orders and permits for future development and redevelopment shall be issued only if public facilities necessary to meet level of service standards adopted as part of the Capital Improvement Element are available concurrently with the impacts of the proposed development.

~~Policy 2.5: Existing development shall connect to central sewer and water facilities as they become available; provision of central sewer to riverfront property shall be first priority.~~

Policy 2.4: All waterfront development shall connect to the City wastewater treatment system. Waterfront property is property which borders the Rainbow River, Withlacoochee River, prairie ponds, borrow pits, wetlands, lakes, and other water bodies. The determination that a parcel is waterfront shall be based on the parcel boundaries existing on June 25, 2007.

Policy 2.5: When development is proposed, other than waterfront development, where the wastewater treatment system has not yet been extended, a septic system may be permissible, provided that the system is a performance-based system, including annual maintenance, and ensuring that the system is designed to produce effluent that contains not more than 10 mg/l of total nitrogen. When the wastewater treatment system is extended within 1,000 feet of the development, measured to the property line, all uses shall connect to the wastewater treatment system.

~~Policy 2.7: Ensure that new multi-family residential development, (units of three or more), has direct access to collector roads so that high volumes of traffic do not pass through other residential neighborhoods.~~ [This policy is included in new Policy 1.3.]

~~*Policy 2.8: All new development shall be required to hook up to the existing (*ord. 99-4)* central sewer. Development in the agricultural land use district shall not be required to utilize central sewer unless development is clustered at densities required to have central sewer in accordance with FDHRS standards.~~ [This policy is no longer needed. See new Policy 2.4 and new Policy 2.5.]

~~Policy 2.9:~~

Policy 2.6: Existing development, at any density or in land use category, shall be required to ~~hook up to central sewer~~ connect to the City wastewater treatment system within 90 days of availability.

~~**Policy 2.10**: Coordinate with the Marion County Board of County Commissioners through joint meetings and Interlocal agreements, regarding the provision of central sewer facilities to all riverfront property, pursuant to Bill 1433.~~ [This policy is no longer needed; see Policy 2.4.]

~~**Policy 2.11**: The fees for permit review, site plan review and other administrative duties for the review and permitting of development shall be revised to reflect costs of City staff time.~~ [Fees are best addressed by ordinance or resolution and not within the comprehensive plan.]

~~**Policy 2.12**: Issuance of all development orders and permits shall be based upon public facilities and service being available at the adopted level of service standards concurrent with the impacts of the development. The City shall cooperate with public utilities to ensure facilities that provide utility service are authorized at the same time as land uses that require those facilities are authorized. Siting of such facilities shall be consistent with the adopted future land use map and compatible with adjacent land uses.~~ [This subject matter is already addressed in Policy 2.3.]

OBJECTIVE 3:

~~No areas within the City have been identified as blight areas requiring renewal processes. However, approximately 1.3 percent of the City's housing stock is in dilapidated condition. Since this housing occurs primarily within the Historic District, it is the City's objective to prevent future blight and eliminate its substandard housing by implementing the following: adoption of land development regulations by the statutory deadline and implementation of coordination policies by 1995.~~

The City will continue to prevent blight and eliminate any instances of existing blight through code enforcement, enforcement of building and housing codes, and implementation of a Community Redevelopment Plan.

Policy 3.1: The land development regulations and codes shall be enforced ~~equally~~ for all property within Dunnellon.

Policy 3.2: The land development regulations shall ~~establish~~ maintain minimum housing codes, providing for conservation, demolition, and rehabilitation techniques of residential structures.

Policy 3.3: ~~Strengthen~~ Land development regulations shall be enforced as one means to ensure structural and aesthetic integrity of housing stock.

Policy 3.4: The City shall continue to ~~C~~coordinate with property owners concerning the availability of tax benefits and other incentives available for renovation and improvements of historic structures.

Policy 3.5: The City shall continue to ~~C~~coordinate with the private sector in order

to encourage rehabilitation of both residential and nonresidential structures, through continued application for CDBG and other grant programs which fund rehabilitation efforts and through establishment of partnerships with the private sector for construction and other services upon which the City relies on the private sector.

Policy 3.6: The City shall ~~C~~coordinate with Marion County, the Department of Community Affairs, the Florida Department of Rehabilitative Services and US Department of Housing and Urban Development concerning various alternatives available towards the rehabilitation of substandard housing within the City.

OBJECTIVE 4:

~~Encourage elimination and reduction of uses inconsistent with the community's character and future land uses, through adoption of the land development regulations by the statutory deadline.~~

The City shall continue to enforce regulations regarding nonconformities as one means of eliminating both nonconforming uses and nonconforming structures.

~~**Policy 4.1**: The land development regulations (including zoning) shall be amended to ensure development, particularly commercial or institutional, is consistent with neighborhood and historical character.~~ [New policies defining land use categories and the allowable uses make this policy unnecessary.]

~~**Policy 4.2**: The land development regulations shall prohibit development of new single-family homes in all commercial only zones. .~~ [New policies defining land use categories and the allowable uses make this policy unnecessary.]

~~**Policy 4.3:**~~

Policy 4.1: Where existing ~~single-family homes~~ structures are made nonconforming by this plan, such uses shall be allowed to continue with normal repairs and maintenance to existing buildings. However, these uses shall be subject to specific regulations in the land development code.

Policy 4.2: Structures that are destroyed involuntarily to an extent less than fifty (50) percent of the floor area of the structure may be rebuilt as they existed prior to destruction. Such structures may not be expanded or relocated without full compliance with standards and criteria currently in effect. Rebuilding of the destroyed portion of the structure without compliance with current standards and criteria is limited to an exact replacement of the destroyed structure.

Policy 4.3: Structures that are involuntarily destroyed to an extent that is fifty (50) percent or more of the floor area, or structures that are voluntarily

destroyed shall be rebuilt only in full compliance with current standards and criteria.

~~**Policy 4.4**: Continue to allow housing for special needs groups, including group homes, foster care facilities and rural and farm worker households in all residential neighborhoods.~~ [This policy is already addressed in the Housing Element; it is unnecessary to repeat it here.]

~~**Policy 4.5**: The land development regulations shall allow only specified nonresidential uses (other than home occupations) in residential zones and only by special exception.~~ [New policies defining land use categories and the allowable uses make this policy unnecessary.]

~~**Policy 4.6**: No incompatible uses have been identified in the existing land development regulations. However, during research and revision of the land development regulations to be consistent with the adopted comprehensive plan, Chapter 163, F.S., 9J-24 and 9J-29, F.A.C, any inconsistencies shall be modified to eliminate potentially incompatible uses now allowed in the land development regulations.~~ [This policy is no longer needed. Nonconformities are addressed in Policy 4.1.]

~~**Policy 4.7**: All new residential subdivisions, multi-family development, commercial and mixed use development shall undergo the site plan review process to ensure appropriate buffering requirements from adjacent uses, provision of adequate traffic flow and parking and appropriate site design provisions consistent with the character and development pattern of the district.~~ [See new Policy 1.18.]

~~**Policy 4.8**: Criteria to be developed for review of new development under site plan review shall include, but not be limited to, consideration of impacts of the proposed development on: potable water quality, surface water quality, adequate buffering from adjacent land uses and neighborhoods, potential for elevated radon emissions and traffic circulation and parking.~~ [This policy is unnecessary. Review of proposed development plans must consider the entire comprehensive plan.]

~~**OBJECTIVE 5**:~~

~~Develop appropriate land development techniques in the land development regulations, within one year after plan adoption, which ensure all future development activities protect natural and historical resources. Site design shall include analysis of soils, topography, wetlands and other environmental constraints.~~

~~**Policy 5.1**: No mining activities shall be permitted within the corporate limits.~~ [Redunant with Objectives 5, 2, and 6, Conservation Element.]

~~**Policy 5.2**: The City shall require that industrial uses in the commercial-industrial zone mitigate any impact on air and water quality.~~ [Redundant, Policy 4.1, Conservation Element.]

~~**Policy 5.3**: All proposed commercial-industrial development shall undergo the site plan review process, where the following standards shall be enforced to ensure protection of air quality:~~[Redundant with Policies 1.1, 1.1.1, 1.1.2, and 1.1.3, Conservation Element.]

~~A. The proposed industrial uses will be located in areas deemed to have the least impact on air, potable water and surface water quality standards.~~

~~B. The applicant shall include documentation that ambient air quality, potable~~

~~water quality and surface water quality in the City will not be lowered.~~

~~C. The applicant shall use adequate landscaping to promote air quality and reduce noise and view impacts to adjacent property.~~

~~**Policy 5.4**: New development shall maintain a 50-foot setback from water bodies, and a 25-foot setback from wetlands. Applicants unable to meet the 50 foot setback may be allowed to provide a 25 foot setback so long as a vegetated swale is provided in the uplands adjacent to the waterline which is effectively designed for water quality and erosion control.~~ [Redundant with Policy 2.1.2, Conservation Element.]

~~**Policy 5.5**: All proposed development in the 100-year floodplain shall provide compensatory storage of floodwaters to ensure other areas do not become flood-prone. All development in the floodplain shall be consistent with the standards for construction as set forth in the City's floodplain management ordinance, which provides standards consistent with Federal standards for floodplain construction.~~ [Redundant with Objective 3 and Policy 3.1, Conservation Element.]

~~**Policy 5.6**: The City shall develop other criteria which are necessary to protect public health, safety and property for development in flood-prone areas.~~[Redundant with Policy 3.3, Conservation Element.]

~~**Policy 5.7**: The City shall protect historic and natural resources, including endangered species and natural aquifer recharge capabilities, by allowing such innovative development techniques as, cluster housing, transfer of development rights and density bonuses, and establishment of minimum buffer areas and setbacks from historic or environmentally sensitive resources.~~ [Similar to Policies 6.1 and 8.10, Conservation Element. Requirements regarding historic resources moved to Conservation Element.]

~~**Policy 5.8**: The City shall require the establishment of conservation easements and preservation areas for new development containing endangered, threatened or species of special concern, or archaeological resources.~~[Redundant with Policy 6.2, Conservation Element.]

~~**Policy 5.9**: The City shall enforce regulations which restrict disturbance of wetlands by development activity, including setbacks, prohibitions on dredge and fill activity, and limitation of vegetation clearing to no more than 25 percent within setback buffers.~~[Redundant with Policy 6.2, Conservation Element.]

~~**Policy 5.10**: The City shall enforce the existing tree ordinance, for the protection of native species and elimination of undesirable, aggressive exotics.~~ [Redundant with Policy 6.7, Conservation Element.]

~~**Policy 5.11**: In order to protect present and future water supplies, the City shall adopt a wellfield protection ordinance limiting development within specified radii to public potable water wells as follows:~~

~~A. A 200-foot radius for Well Nos. 1, 2, 3, and 4, within which new development and redevelopment shall be limited to passive recreational use.~~

~~B. All new underground storage tanks within the City shall be required to provide double lining, consistent with DER rule 17-761, F.A.C. All land use requests for installation and underground storage tanks shall not be issued development orders until approved by the Marion County Underground Storage Tank Program to ensure consistency with DER rules.~~

~~C. All existing underground storage tanks within the City shall be inspected annually in accordance with the Marion County Underground Storage Tank Program.~~

~~D. Prior to permitting of demolition or redevelopment of land uses which contain underground storage tanks, the developer shall be required to submit closure plans consistent with DER rule 17-761,800, F.A.C. to the Marion County Underground Storage Tank Program officials for prior approval.~~

~~E. Should the City Police, fire department, public works personnel or other staff become aware of any spills throughout the City, the Public Works director shall report the information within 24 hours to the Marion County Underground Storage Tank Program and request assistance under the program towards enforcement of cleanup procedures.~~ [Redundant with Policies 8.2 and 8.3, Conservation Element.]

~~Policy 5.12: The City shall require that all new subdivisions, multi-family and non-residential development provide a minimum of 30 percent pervious (porous) open space or green area, except within the historic district.~~ [Impervious surface ratios are provided in the descriptions of land use categories following Objective 1.]

~~OBJECTIVE 6:~~

~~To coordinate at all times with appropriate resource management plans prepared pursuant to Chapter 380, F.S., and other natural resource management plans.~~ [Combined with Policies 6.12 and 6.13, Conservation Element.]

~~Policy 6.1: The City shall maintain coordination with all agencies having natural resource management plans, including the Department of Natural Resources (which has jurisdiction over the Rainbow River Aquatic Preserve) the Department of Environmental Regulation (which has jurisdiction over Outstanding Florida Waters) and Florida Freshwater Fish and Game Commission (which has jurisdiction over fisheries and endangered species), and Southwest Florida Water Management District which has nominated the Rainbow River to the Surface Water Improvement and Management Program.~~ [Moved to Policy 6.12, Conservation Element.]

~~Policy 6.2: The City shall coordinate with Marion County, the Department of Community Affairs and the Withlacoochee Regional Planning Council regarding any resource management plans initiated by those agencies.~~ [Moved to Policy 6.13, Conservation Element.]

~~Objective 7:~~

Objective 5:

It is the City of Dunnellon's objective to control urban sprawl, through its comprehensive plan, amendments to the comprehensive plan, and ~~adoption~~ implementation of land development regulations ~~by the statutory deadline~~, which provides specific criteria for development. Such criteria shall encourage infill and redevelopment within the city and ensure provision of adequate urban services within the city to meet adopted levels of service standards concurrent with the impacts of development. Additional actions towards reduction of urban sprawl shall include: Interlocal agreements with Marion County on annexation areas and adjacent development approved by the county.

~~Policy 7.1:~~

Policy 5.1: Proposed plan amendments for land uses which are more intense than those designated on the adopted Future Land Use Map shall be required to provide urban services at adopted levels of service at the developer's expense, in addition to demonstrating consistency with the adopted comprehensive plan, as required by s. 163.3194, F.S.

~~Policy 7.2:~~

Policy 5.2: Extension of services within the Dunnellon City Limits shall have priority over extension to unincorporated areas. This does not prohibit extension of services to unincorporated where needed to ensure protection of public health and safety. ~~Urban Services shall have priority over extension outside the Urban Service Area~~.

~~Policy 7.3~~:

Policy 5.3: The City shall ~~develop~~ implement specific annexation policies which ensure annexation does not contribute to urban sprawl, including requiring that city services provide service to existing developed areas within the City prior to extension of services outside the city to discourage leapfrog development. Annexation proposals shall not be approved unless consistent with adjacent land use within the city, availability of public facilities and ~~discouraging~~ preventing leapfrog development.

~~Policy 7.4:~~

Policy 5.4: The City shall ~~establish~~ continue to seek and implement coordinating mechanisms with Marion County in order to control urban sprawl outside City limits. Such coordination shall include Interlocal agreements for: joint development review of proposals outside city limits, including DRIs, which impact roadway level of service, future land use designations for adjacent lands, and proposed road improvement plans for US 41 and the extension of sewer on the Rainbow River.

~~Policy 7.5:~~

Policy 5.5: Develop an Interlocal agreement with Marion County to increase coordination during subsequent updates of the both comprehensive plans in order that the City play an~~d~~ increasing role in the planning of areas directly outside City limits, and which hold potential for annexation.

~~Policy 7.6:~~

Policy 5.6: The land development regulations~~, adopted by May 1, 1992,~~ shall contain design standards to control and minimize the negative impacts of strip commercial development.

~~*Adopted per Ordinance 99-4 – Case Number 94-1A, Crace Property~~

Objective 6.
All proposed amendments to the comprehensive plan, including amendments to the Future Land Use Map, shall meet the criteria in the following policies.

Policy 6.1: Demonstrate that the proposed uses are appropriate, considering potential impacts on natural resources and environmentally sensitive lands. If an amendment is proposed for land within 500 feet of a wetland, shoreline, sinkhole, or geologic feature, the amendment shall be accompanied by a geophysical analysis with at least the following information: the characteristics of on-site soils; locations of geologic features including sinkholes, depressions, and swallets; depth of the water table; location of the Floridian Aquifer relative to ground surface and thickness and extent of the bedrock or other confining layers over the aquifer.

Policy 6.2: Where a geophysical analysis confirms a direct connection to the aquifer, a comparative nitrate loading analysis shall be prepared by a licensed professional geologist using professionally acceptable methodology based on the designation on the Future Land Use Map at the time of the proposed amendment versus the proposed land use designation, considering the maximum intensity possible under the proposed land use designation. The analysis must demonstrate that there is no measurable net increase in nitrate loading to groundwater.

Policy 6.3: Demonstrate that the uses permissible in the proposed land use category are able to be developed consistent with Best Management Practices and the specific requirements set forth in the Conservation Element.

Policy 6.4: Demonstrate that the proposed land use category is the least intensive category that will meet a clearly demonstrated need for the use.

~~Table 1B~~
~~Future Land Use Density/Intensity of Use~~

~~FUTURE LAND USE~~	~~DENSITY~~	~~MAX. LOT COVERAGE[1]~~	~~MAXIMUM BUILDING HEIGHT~~
~~Residential, Low Density~~	~~< 1 du/ acre~~ ~~<2.5 du/ acre~~	~~45%~~	~~40 ft.~~
~~Residential, Medium Density~~	~~<5 du/ acre~~ ~~2.6- 5 du/ acre~~	~~50%~~	~~40 ft.~~
~~Residential, High Density~~	~~5.1- 12 du/ acre~~	~~45%~~	~~50 ft.~~

~~Residential/Office~~	~~4 du/acre~~	~~50% Residential 65% Office~~	~~50ft.~~
~~Industrial~~	~~n/a~~	~~65%~~	~~60 ft. (light) 150ft. (heavy)~~
~~Commercial~~	~~n/a~~	~~65%~~	~~50 ft.~~
~~Water Oriented Commercial~~	~~n/a~~	~~50%~~	~~40 ft.~~
~~Tourist Oriented Commercial~~	~~n/a~~	~~50%~~	~~50 ft.~~
~~Public~~	~~n/a~~	~~65%~~	~~50 ft.~~
~~Conservation~~	~~n/a~~	~~n/a~~	~~n/a~~
~~Recreation~~	~~n/a~~	~~45%~~	~~50 ft.~~
~~Agricultural~~	~~1 du/ acre~~	~~7.5%~~	~~50 ft.~~
~~Vacant~~	~~n/a~~	~~n/a~~	~~n/a~~
~~Wetlands~~	~~n/a~~	~~n/a~~	~~n/a~~
~~Water Bodies~~	~~n/a~~	~~n/a~~	~~n/a~~
~~**PUD-Approximate proportions of land use within the PUD:**~~			
~~Residential not less than 30%, not greater than 50%~~	~~< 5 du/ acre[2]~~	~~45%~~	~~50 ft.~~
~~Commercial not less than 5%, not greater than 50%~~	~~n/a~~	~~65%~~	~~50 ft.~~
~~Recreation/open space not less than 10%~~	~~n/a~~	~~45%~~	~~50 ft.~~
~~Public, including utilities or wetlands conservation easements not less than 5%~~	~~n/a~~	~~n/a~~	~~n/a~~

1. ~~Lot coverage includes all buildings and all paved areas, including swimming pools and paved parking areas.~~

~~Up to 7 additional bonus points may be awarded through a density bonus system. The density bonus system to be developed in the land development regulations, will allow additional density where the applicant provides additional amenities or services to the site, such as additional open space or public sho~~

The following policies should ultimately be located in other elements. However, until such elements are updated, the policies are retained. These policies are renumbered as shown.

Objective 7:
The following policies are retained in the Future Land Use Element until the remainder of the comprehensive plan is updated. At such time as the remainder of the comprehensive plan is updated, the policies will be relocated and revised as needed.

Recommended for relocation to the Infrastructure Element when it is updated:

~~Policy 2.6~~:
Policy 7.1: Future siting of public facilities and services shall maximize efficiency, while minimizing financial costs. Soil suitability, sinkhole potential and setbacks from wetlands shall determine approval or denial of all future ~~sewage treatment plant sites~~ public facilities and services.

Recommended for inclusion in the Public School Facilities Element when it is adopted:

~~Policy 2.13~~:
Policy 7.2: The City of Dunnellon shall encourage to the extent possible the location of schools based on the following criteria:

a. proximity to residential areas, particularly for elementary schools.
b. proximity to existing or planned public facilities, such as parks, libraries, and community centers.
c. Location of elementary schools along local or collector streets
d. Location of middle and senior high schools near arterial streets
e. Location of lands contiguous to existing school sites.
f. Avoidance of school siting in environmentally sensitive areas.
g. Avoidance of school siting in any area where the nature of existing or proposed adjacent land uses would endanger the safety of students or decrease the effective provision of education.
h. Avoidance of school siting in any area where the proposed school facility would be incompatible with surrounding land uses.

~~(*amended per ord.99-9)*~~

Recommended for relocation to a Historic Preservation Element during further updates to the comprehensive plan. Other policies pertaining to historic preservation should be consolidated into a new Historic Preservation Element.

~~Policy 5.13~~:
Policy 7.3: In order to protect its historic structures, the City has recently had its Historic District nominated to the National Register of Historic Places. However, this nomination only limits alterations to structures, which are receiving federal and state funds. Therefore, the City shall

~~develop, implement, and~~ enforce an historic preservation ordinance ~~by May 1, 1992,~~ which:

A. ~~Establishes~~ Provides for an historical preservation board, with the responsibility to direct and supervise development of the Historic District and any additional individual buildings with historical status. The Board shall also be responsible for coordinating with the State Division of Historic Resources, as well as providing property owners with information, such as federal taxes and other benefits available under National Register status.

B. ~~Establishes~~ Provides criteria for redesign, maintenance, alteration, demolition, and relocation of historical buildings so that historic character is not diminished.

C. ~~Establishes~~ Provides a sign ordinance specific to the historic district.

D. Regulates replacement of physical features such as streetlights, street signs, fences, and utility poles to promote compatibility with the historic district.

E. Administers enforcement procedures and public hearings for review.

F. ~~Develops~~ Contains procedures for establishing new boundaries and monitoring construction in the existing district.

G. Protects archaeological sites from disturbance and destruction, by prohibition of development on or in such close proximity to archaeological site 8MR95 as to destroy its substance or character, and requires that archaeologically significant sites that might be discovered in the future in Dunnellon be left intact and immediately reported to the City administration to initiate the preservation process.

~~Policy 5.14:~~

Policy 7.4: The City shall review and amend the land development regulations to eliminate zoning or other conflict with the historic preservation ordinance.

~~Policy 5.15:~~

Policy 7.5: The conservation and rehabilitation of substandard housing of historical significance shall be in accordance with the standards of the

Division of Historic Resources and the City's local historical ordinance, when adopted.

~~Policy 5.16:~~

Policy 7.6: The City shall ~~P~~provide design guidelines for new construction and renovation of non-historic buildings within the district.

~~Policy 5.17:~~

Policy 7.7: The City shall promote the reuse of historic buildings within the district, by allowing innovative incentives and techniques whereby owners of historic properties who cannot justify the renovation of buildings as residential units shall meet standards for renovation as commercial, office, or a mix of commercial/office and residential. Such innovative incentives and techniques may include tax credits and conservation easements as stipulated in the land development regulations ~~to be adopted by May 1, 1992~~. The applicant shall be required to meet the standards for renovation and site design consistent with the historical district ordinance.

~~Policy 5.18:~~

Policy 7.8: The City shall promote development of educational programs to achieve a higher level of public awareness of local historic resources.

~~Policy 5.19:~~

Policy 7.9: The City shall offer public recognition incentives for active conservation of locally significant historic resources to encourage public and private participation in preservation.

Conservation Element
Proposed Goals, Objectives, and Policies

Proposed new text is underlined. Existing (adopted) text proposed to be deleted is shown with ~~strikethrough~~. Plain text without underlining or strikethrough is the existing language with no proposed changes. Please note that the existing plan format shows the word "policy" underlined. That underlining has been removed and underlining is now used only for new text.

GOAL

To manage, conserve and protect Dunnellon's natural resources through a balance of man's activities with sound environmental practices.

AIR QUALITY

Objective 1:

The City of Dunnellon currently enjoys good ambient air quality. However, the City recognizes air quality may be negatively affected by future land uses. Therefore, it is the City's objective to maintain existing high standards of ambient air quality within the planning timeframe.

Policy 1.1: All proposed ~~industrial~~ commercial development which may impact air quality shall undergo the site plan review process, where the following standards shall be enforced: [Revised for consistency with future land use categories.]

1.1.1: Any proposed industrial uses will be located in areas deemed to have the least impact on air quality standards.

1.1.2: The applicant shall include documentation that ambient air quality in the City will not be lowered.

1.1.3: The applicant shall use adequate landscaping to promote air quality and effectively reduce noise and view impacts to adjacent property.

Policy 1.2: The City shall ~~P~~promote the use of alternative modes of transportation where economically feasible, including bicycle paths and walking trails.

Policy 1.3: The City shall ~~C~~cooperate with any local, state, or federal agency programs, which monitor or otherwise contribute to maintenance of air quality.

SURFACE WATER QUALITY

Objective 2:
The Rainbow River and Withlacoochee River are irreplaceable recreational and aesthetic resources to the City. ~~Recent data indicate Dunnellon's rivers currently have good water quality.~~ The City shall ensure that existing and future land uses do not contribute to a decrease in surface water quality ~~within the planning timeframe~~, through enforcement of the following policies ~~upon adoption of this plan~~, and ~~adoption of land development regulations by the statutory deadline which establish~~ through requirements for development~~,~~ and density limitations according to provision of central sewer facilities and criteria for site plan review.

Policy 2.1: The surface waters of the City, including lakes, rivers, and wetlands, shall be designated conservation areas, where the following requirements shall be enforced:

2.1.1: All waterfront development shall use methods of stormwater treatment which filter the first one and one-half inch ~~and a half~~ (1½ inch) of stormwater prior to direct discharge into surface waters, consistent with SWFWMD and DE~~R~~P rules for Outstanding Florida Waters.

2.1.2: Minimum setbacks of not less than ~~50~~ 150 feet from the ordinary high water line of rivers and navigable coves, and abutting wetlands, shall be established ~~for structures and not less than 100 feet for septic tanks and drainfields~~ for all development along the river. This area shall be known as the river corridor protection area. The land within the 150-foot setback shall be protected through a conservation easement; ~~minimum setbacks of not less than 25 feet from wetlands shall be established for structures. Applicants unable to meet the 50-foot setback due to lots size may be allowed to provide a 25-foot setback so long as a vegetated swale is provided in the uplands adjacent to the water line or other accepted engineering technique, which is effectively designed to protect water quality and provide erosion control.~~

~~**2.1.3:** All new development (other than the agricultural district, unless clustered at densities requiring central sewer) shall be required to utilize central sewer. The City has designated existing waterfront development as a first priority for provision of central sewer hookup and shall provide central sewer to existing waterfront development according to the schedule in the Capital Improvements Element. When central sewer becomes available, all existing development, including waterfront lots shall be required to hook up within 90 days of availability.~~

2.1.3: No development shall be permitted by the City until the applicant has demonstrated that all proper state and federal permits have been received, including provisions for stormwater treatment.

2.1.4: No dredging or filling will be allowed in wetlands, except where prohibition would deny all reasonable use of the property; in such cases, activities meeting this standard ~~must~~ shall replace wetlands ~~lost acre for acre~~, by ~~wetland~~ type, form and function at the rate of two (2) acres of new wetlands for each one (1) acre of lost wetlands, unless a more strict standard is imposed by a state or federal agency.

2.1.5: For existing and new development, clearing of shoreline and wetland vegetation within ~~25~~ 150 feet of the ordinary high water shall be limited to that required to provide ~~reasonable~~ access to the shoreline; in no case shall clearing exceed ~~25~~ 10 percent of the total shoreline of each property.

2.1.6: The removal of healthy, non-nuisance trees shall be in accordance with the tree ordinance.

2.1.7: No hazardous, toxic, chemical, petroleum, nuclear waste, or liquid sludge shall be discharged into lakes or wetlands. No bulk hazardous wastes including septic tank effluent or liquid sludge shall be stored within ~~500~~ 1,000 feet of the rivers' edge (ordinary high water), except those associated with water-oriented commercial uses that obtain appropriate permits by DE~~R~~RP.

2.1.8: The construction of new boat ramps along the rivers shall be designed to direct runoff away from the river. Direct sheet flow is prohibited.

2.1.9: Any development adjacent to surface waters shall incorporate Best Management Practices (BMP) for stormwater treatment and for ~~the~~ any permissible application of fertilizers and pesticides.

Policy 2.2: Minimum setbacks of not less than 50 feet from water bodies and wetlands outside of the river corridor protection area are required for all development. [Moved from Policy 2.1.2, Conservation Element]

Policy 2.~~2~~3: Future improvements or widening of the City's roadways and drainage structures will include retrofitting for stormwater treatment. [This policy may be relocated to the Infrastructure Element. However, until the element is updated, the policy is retained.]

Policy 2.~~3~~4: The City shall seek funding sources for improvement of existing stormwater outfalls, such as stormwater utility districts, or alternative

methods of reducing stormwater pollution, such as street cleaners. [This policy may be relocated to the Infrastructure Element. However, until the element is updated, the policy is retained.]

Policy 2.45: The City shall coordinate with the Southwest Florida Water Management District Surface Water Management and Improvement Program (SWIM) program regarding ~~additional~~ continuing measures or funding sources available ~~towards~~ for preservation of the Rainbow River.

Policy 2.56: The development of any new project along the rivers shall provide a stormwater management system including retention/detention areas, swales and other devices, which filter out pollutants before the stormwater enters the river~~, in accordance with DERP and SWFWMD rules~~. [This policy may be relocated to the Infrastructure Element. However, until the element is updated, the policy is retained.]

Policy 2.67: Water collected in agricultural drainage systems shall be routed through vegetated buffer areas, such as field borders and grassed swales, to provide treatment consistent with SWFWMD standards ~~reduce pollution to the river~~. [This policy may be relocated to the Infrastructure Element. However, until the element is updated, the policy is retained.]

Policy 2.8: ~~Through the site plan review process, development of single-family homes on existing platted lots along the river shall be required to have the lot graded in a manner to minimize runoff. Single-family lot owners shall be encouraged to reduce fertilizer and other pollutant runoff into the river through educational programs~~. The City shall prohibit the sale and use of fast-release fertilizers within the City limits. [Deleted policy is addressed by the Future Land Use Element]

Policy.2.89: Redevelopment plans ~~of areas designated as water-oriented and tourist-oriented commercial on the Future Land Use Map~~ shall include site design providing for stormwater treatment on-site. [This policy may be relocated to the Infrastructure Element. However, until the element is updated, the policy is retained.]

Policy 2.910: The City shall ~~C~~coordinate with Federal, State and local enforcement agencies to effectively enforce established regulations. [This policy may be relocated to the Intergovernmental Coordination Element. However, until the element is updated, the policy is retained.]

Policy 2.101: The City shall ~~P~~prohibit any ~~major~~ commercial water withdrawal or diversion of the Rainbow River and the Withlacoochee River.~~, which would adversely impact water quality~~.

OBJECTIVE 3:
The City of Dunnellon is enrolled in the Federal Emergency Management Agency Flood Insurance Program, which designates areas where flooding may incur hazards to public safety and property. In order to reduce such hazards, the City shall continue to enforce its existing floodplain management ordinance, and, to ensure the optimum level of enforcement of the ordinance, ~~establish~~ maintain mandatory site plan review criteria and additional requirements for development within the floodplain ~~through the land development regulations, adopted by the statutory deadline~~.

Policy 3.1: All proposed development in the flood plain shall provide compensatory storage of floodwater to ensure other areas do not become flood-prone.

Policy 3.2: Development meeting the criteria in Policy 3.1 shall be permitted if the finished elevation of first floor construction is at least one (1) foot above the 100-year flood elevation.

Policy 3.3: ~~Other~~ eCriteria for development in the floodplain shall include the use of anchoring to prevent flotation, use of piers and breakaway walls, protection of water quality and habitat functions of the floodplain, and other criteria deemed necessary by the City to protect public health and safety. Septic tanks shall be prohibited in the 100-year floodplain~~,~~ ~~consistent with the Regional Policy Plan~~.

LAND RESOURCES

Objective 4:
At this time, there are no areas within the City considered suitable for extraction of minerals. However, it is the City's objective to conserve, protect, and appropriately use mineral resources within the City, through enforcement of the following policy ~~policies upon adoption of this plan, and through land development regulations, adopted within the statutory deadline~~.

Policy 4.1: No mining activities will be allowed within City limits.

Objective 5:
The soils of Dunnellon are subject to erosion problems; areas undergoing development activity are especially prone to wind erosion. It is the City's objective to protect soils through incorporation of the following requirements and criteria for site plan review ~~in the land development regulations to be adopted within the statutory deadline~~.

Policy 5.1: The City shall ~~develop~~ require that "Best Management Practices" ~~to~~ be followed during development activities:

5.1.1: Use of hay bales or other effective means to prevent erosion on areas of steep slope shall be required.

5.1.2: Shorelines and wetlands shall be protected with filter berms or fabric screens, as appropriate to prevent siltation into water bodies and wetlands.

5.1.3: All site preparation and landscaping, as shown on the site plan for new development, shall be completed prior to certificate of occupancy.

5.1.4: Other best management practices ~~shall be developed~~ may be required by the City, ~~which are appropriate towards reducing~~ where needed to reduce or eliminate erosion.

~~**Policy 5.2**: Site plan review of new development shall consider loss of pervious surfaces which result in lowering of recharge capabilities and increasing runoff.~~ [Policy is addressed in the Future Land Use Element]

~~**Policy 5.3**: Left Blank~~

Policy 5.4~~2~~: All landscaping within ~~25~~ 150 feet of the ordinary high water line of the rivers shall be native and/or naturalized vegetation ~~which~~ that ensures the stabilization of soils ~~and which is not considered noxious or invasive~~. The planting of species listed on the Florida Exotic Pest Plant Council's *Invasive Plant List* is prohibited.

Policy 5.5~~3~~: Stabilization of banks shall be accomplished by planting of native and/or naturalized vegetation or use of rip-rap, and not by seawalls; construction of new seawalls is prohibited.

Policy 5.6~~4~~: Existing seawalls requiring maintenance and repair shall be faced with riprap for stabilization and prevention of undercutting and erosion.

Policy 5.7~~5~~: The City shall require the use of best agricultural practices on agricultural land to minimize erosion and ensure compatibility with protection of natural systems.

Policy 5.8~~6~~: The City shall seek the assistance from the Southwest Florida Water Management District SWIM program and Marion County to remediate erosion problems at the CR 484 bridge tubing and canoe pickup site.

FLORAL AND FAUNAL RESOURCES

Objective 6:
Manage, conserve, and protect all natural ~~ecological~~ communities and wildlife, especially species designated of special status by the ~~Florida Game and Freshwater Fish Commission~~ Florida Fish and Wildlife Conservation Commission, Florida Department of Agriculture and Consumer Services, and U.S. Fish and Wildlife Service, ~~upon adoption of this plan,~~ through the following requirements and site plan review process. ~~criteria in the land development regulations, to be adopted by the statutory deadline~~.

Policy 6.1: Require innovative techniques for new development to protect wildlife species, through site design methods which direct development away from wildlife, such as buffering, cluster housing, and other methods ~~which will be researched during development of the land development regulations~~.

Policy 6.2: Require the establishment of conservation easements and preservation areas for new development of private and public lands containing endangered, threatened or species of special concern on-site.

Policy 6.3: Coordinate with Federal, State and local agencies in ~~development and~~ enforcement of regulations that pertain to endangered, threatened and species of special concern.~~, adopted by the statutory deadline~~. ~~In the interim, request that the Florida Game and Freshwater Fish Commission assist in review and approval of management plans required to mitigate adverse impacts to wildlife, as described in policy 6.11.~~

Policy 6.4: Seek assistance from ~~Florida Game and Freshwater Fish Commission~~ Florida Fish and Wildlife Conservation Commission prior to approval of new development in areas known to be inhabited by endangered or threatened species, in order to ensure development design mitigates any negative impacts through management plans which include Best Management Practices.

Policy 6.5: Enforce regulations, which restrict disturbance of wetlands by development activity~~,~~; including requiring setbacks, prohibiting~~ons~~ ~~on~~ dredge and fill, requiring mitigation at the rate of two (2) acres of wetlands for each one (1) acre of disturbed wetlands, unless a more strict standard is imposed by a state or federal agency, and limiting vegetation clearing. [Combined with Policy 5.9, Future Land Use Element]

Policy 6.6: Encourage use of native and/or naturalized species for landscaping of new development, while prohibiting planting of invasive or aggressive exotic vegetation, including Brazilian pepper, melaleuca, ear tree, and Australian pine.

Policy 6.7: Enforce the tree protection ordinance, for the protection of native species, and elimination of undesirable, aggressive exotics.

Policy 6.8: Implement and enforce policies in the Future Land Use Element, which limit density and intensity of development of areas, designated for conservation on the Future Land Use Map.

~~(a)*6.8.1: Wetland areas designated as conservation on the Future Land Use Map are estimated, actual conservation areas for wetlands shall be determined by the most comprehensive of the jurisdictional lines as determined by Southwest Florida Water Management District (SWFWMD), Department of Environmental Protection (FDEP), or U.S. Army Corps of Engineers (USACOE).~~

~~(b)~~6.8.21: Non-jurisdictional uplands, as determined by SWFWMD, FDEP, or USACOE, shall be investigated for the possibility of plant and animal species of special concern through the databases of the ~~Florida Game and Fresh Water Fish Commission~~ Florida Fish and Wildlife Conservation Commission and the Florida Natural Areas Inventory. Should either of these data banks show a ~~good~~ probability of ~~their being a~~ listed species, the property should be ground-truthed. ~~and should an area on the property be found to have a~~ If evidence of listed species is found, ~~that area shall be placed in a~~ the City shall consider an amendment to the Future Land Use Map to designate the area as "conservation" land use. ~~and a~~ A wildlife management plan consistent with Policies 6.3 and 6.4 shall be implemented. ~~Should no species be found on the property, the property shall be considered as being the adjacent land use and may be developed accordingly, provided policies concerning buffers and setbacks are complied with~~.

~~(c)*6.8.3: An environmental assessment for wetland and upland conservation areas shall be conducted for large-scale comprehensive plan amendments. Actual jurisdictional lines shall be determined within twelve (12) months prior to commencing development.~~ [Numerous policies are in place regarding wetlands and uplands habitats.]

Policy 6.9: The removal of cypress trees shall be ~~regulated~~ prohibited. ~~in the city tree ordinances~~.

Policy 6.10: The City shall ~~C~~coordinate with Federal, State and local programs for the protection of the most vulnerable ecological communities, including acquisition through the ~~CARL~~ state and federal programs.

Policy 6.11: ~~Large-scale~~ ~~d~~Development projects ~~of 10 acres or more~~ directly adjacent to the Rainbow and Withlacoochee Rivers shall provide an inventory of endangered or threatened animal species and measures to mitigate adverse impacts.

Policy 6.12: The City shall maintain coordination with all agencies having natural resource management plans, including the Department of Environmental Protection (which has jurisdiction over the Rainbow River Aquatic Preserve and Outstanding Florida Waters) and Florida Freshwater Fish and Game Commission (which has jurisdiction over fisheries and endangered species), and Southwest Florida Water Management District which has nominated the Rainbow River to the Surface Water Improvement and Management Program. [Former Policy 6.1, Future Land Use Element]

Policy 6.13: The City shall coordinate with Marion County, Citrus County, the Department of Community Affairs, and the Withlacoochee Regional Planning Council regarding any resource management plans initiated by those agencies. [Former Policy 6.2, Future Land Use Element]

GROUNDWATER AND POTABLE WATER RESOURCES

Objective 7:
Provide for the management of hazardous waste in order to protect environmental quality, potable water supplies, and health, safety, and welfare of Dunnellon's population, through implementation of monitoring and other programs upon adoption of the plan, and through policies for siting of new land uses involving hazardous waste ~~in the land development regulations, to be adopted by the statutory deadline~~.

Policy 7.1: The City shall ~~C~~cooperate with any State, Federal, or local programs concerning hazardous waste.

Policy 7.2: Prior to site plan approval of any activity that stores, uses, or produces hazardous waste, the responsible party shall:

7.2.1: Develop an emergency response system addressing accidents involving hazardous waste.

7.2.2: Ensure that location of the site will not degrade quality of groundwater or surface water or other natural resources.

7.2.3: Ensure DEP standards for transfer, handling, and storage of hazardous waste are implemented by undergoing review and approval under the Marion County Storage Tank Program.

7.2.4: Coordinate with State, Regional, and County officials to demonstrate that compliance with the above requirements will satisfy all regulations and policies.

Policy 7.3: Promote the collection and recycling of hazardous wastes by providing public information and programs such as Amnesty Days and the locations of approved recyclers.

Objective 8:
To conserve and protect potable water resources and natural aquifer recharge areas from adverse impacts ~~through adoption of the land development regulations by the statutory deadline, and establishment of intergovernmental coordination activities upon adoption of the plan~~.

Policy 8.1: The City shall continue to ~~R~~research the feasibility of reuse of water, including spray irrigation and graywater, for new public and private sewage treatment facilities and stormwater facilities. Where such uses are economically viable, physically feasible, and have the least environmental impact they shall be required. [This policy may be relocated to the Infrastructure Element. However, until the element is updated, the policy is retained.]

Policy 8.2: In order to protect present and future water supplies, the City ~~shall adopt a wellfield protection ordinance~~ prohibits~~ing~~ new development within a 200-foot radius to potable water wells (This does not apply to nonpotable wells or individual wells serving a single family residence). In addition, all development ~~potential polluters~~ shall ~~be regulated under~~ comply with the Marion County Storage Tank Program. [This policy may be relocated to the Infrastructure Element. However, until the element is updated, the policy is retained.]

Policy 8.3: ~~Require~~ O~~o~~wners of existing underground storage tanks within 1,000-foot radius of any public potable water well ~~to~~ shall monitor groundwater quality and report quarterly to the City. Any tank found to be leaking shall be required to report within 24 hours to the Marion County Storage Tank Program. [This policy may be relocated to the Infrastructure Element. However, until the element is updated, the policy is retained.]

~~**Policy 8.4**: Through site plan review mechanisms ensure development, other than residential infill of existing platted subdivisions, retain a minimum of 30 percent~~

~~pervious surface on site, except within the downtown historical district area.~~ [Policy addressed in Future Land Use Element]

Policy 8.~~5~~4: Participate in water conservation and protection program of the Southwest Florida Water Management District. [This policy may be relocated to the Infrastructure Element. However, until the element is updated, the policy is retained.]

Policy 8.~~6~~5: Encourage the use of native vegetation in landscaping, which reduces irrigations needs.

Policy 8.~~7~~6: Coordinate with the Southwest Florida Water Management District to ensure the City and its residents comply with the requirements for water conservation during times of water shortage. [This policy may be relocated to the Infrastructure Element. However, until the element is updated, the policy is retained.]

Policy 8.~~8~~7: ~~Obtain technical assistance from the Southwest Florida Water Management District in establishing a water conservation program. The Public Utilities Director shall be responsible for developing~~ Maintain a water conservation program ~~by 1993~~, which includes: progressive rate structures; leak detection and remediation programs; and educational programs. [This policy may be relocated to the Infrastructure Element. However, until the element is updated, the policy is retained.]

Policy 8.~~9~~8: Coordinate with the Southwest Florida Water Management District in development of organized procedures to be followed during emergency water supply interruptions. [This policy may be relocated to the Infrastructure Element. However, until the element is updated, the policy is retained.]

Policy 8.~~10~~9: Implement ~~Encourage~~ innovative site design techniques, which protect the aquifer and maintain aquifer recharge capabilities, such as cluster development, pervious pavement, green development, water and energy efficient development, and open space requirements.

Policy 8.~~11~~10: Enforce state laws requiring low volume plumbing fixtures for new construction through building permit procedures. [This policy may be relocated to the Infrastructure Element. However, until the element is updated, the policy is retained.]

Policy 8.~~12~~11: The City shall verify that ~~Development orders shall not be issued prior to verification of~~ adequate potable water supplies are available, consistent with adopted level of service standards, prior to issuing development orders. [This policy may be relocated to the Infrastructure Element or Capital Improvements Element. However, until those elements are updated, the policy is retained.]

Policy 8.12: The City shall recognize and protect sandhill habitat.

~~Policy 8.13: The use of pervious pavement shall be encouraged on all publicly and privately owned lands to retain recharge functions, through provisions in the land development regulations that require that parking areas that provide seasonal use (deferred parking areas) be of pervious pavement or grass.~~ [Policy is addressed by the Future Land Use Element]

Objective 9:
Protect, maintain, and restore water quality and quantity within the springsheds of the Rainbow Springs and Kings Bay Group in order to maintain and protect environmental, economic, recreational, and natural functions of springs as fragile resources necessary for sustaining the quality of life.

Policy 9.1: In order to minimize the contribution of nitrates to groundwater with its resultant effects on increased growth of vegetation in the spring and river and loss of water clarity, and to foster long-term stewardship of springs, special design and best management practices (BMPs) shall be required for all development located within the City of Dunnellon.

9.1.1: All development shall comply with the following setback standards:

Table 9.1.1. Setback Standards from Specified Features.

Feature	Minimum Setback (feet)
3rd magnitude and smaller springs	100
Spring runs and rivers	150

a. The setback from springs and spring runs shall be measured from the ordinary high water line.

b. Where a lot of record is too small to accommodate development in compliance with the setbacks set forth in Table 9.1.1, an allowable use may be established provided that:
   - the building and associated paved areas are located the maximum distance possible from the features listed in Table 9.1.1,
   - a swale and berm are located between the development and the spring, spring run, or river, and
   - the swale and berm are designed to direct drainage away from the feature.

9.1.2: All development shall demonstrate that the proposed uses are appropriate, considering potential impacts on natural resources and

environmentally sensitive lands. If a development is proposed for land within 500 feet of a wetland, shoreline, sinkhole, or geologic feature, the application shall be accompanied by a geophysical analysis with at least the following information: the characteristics of on-site soils; locations of geologic features including sinkholes, depressions, and swallets; depth of the water table; location of the Floridan Aquifer relative to ground surface and thickness and extent of the bedrock or other confining layers over the aquifer.

9.1.3: Where a geophysical analysis confirms a direct connection to the aquifer, a comparative nitrate loading analysis shall be prepared by a licensed professional geologist using professionally acceptable methodology based on the designation on the Future Land Use Map at the time of proposed development, considering the maximum intensity possible under the proposed land use designation. The analysis must demonstrate that there is no significant and measurable net increase in nitrate loading to groundwater. The analysis shall also demonstrate that there will be no stormwater discharge into any sinkholes.

Policy 9.2: Landscaping design and management practices shall be implemented that reduce impacts to land in the City.

9.2.1: Removal of vegetation shall be limited to the minimum necessary to accommodate development. Buildings and other disturbed areas shall be located to avoid removal of native vegetation to the maximum extent feasible.

9.2.2: Native or naturalized species shall be used in all landscaped areas in order to avoid or minimize the use of irrigation and fertilizers. Fast release fertilizers are prohibited.

9.2.3: The land area within the required setback set forth in Table 9.1.1 is designated as a buffer and all native vegetation shall be retained, except for minimal removal necessary to provide for pedestrian paths or boardwalks. Paths and boardwalks shall not exceed four (4) feet in width except where required for compliance with the Americans with Disabilities Act and shall not be paved.

9.2.4: All landscaping for development in the City shall conform to the best management practices as stated in the *Guidelines for Model Ordinance Language for Protection of Water Quality and Quantity Using Florida Friendly Lawns and Landscapes*. (Florida Department of Environmental Protection, September 2, 2003).

9.2.5: The City shall establish guidelines for managing existing and future lawns and landscapes at all City facilities using the educational guidelines contained in the University of Florida Extension's Florida Yards and Neighborhoods Program, Environmental Landscape Management (ELM) principles and Best Management Practices. Such guidelines shall include practices that are designed to reduce nitrate infiltration into ground and surface water.

Policy 9.3: The City shall initiate discussion with Marion County, SWFWMD, DEP, and other appropriate entities regarding preparation of a carrying capacity study for uses of the Rainbow River. When such a study is prepared, the City will amend its comprehensive plan and adopt implementation mechanisms consistent with the study.

CONCURRENCY MANAGEMENT SYSTEM

Introduction

Chapter 9J-5, *Florida Administrative Code*, requires the adoption of a concurrency management system to ensure that facilities and services needed to support development are available concurrent with the impacts of such development. This concurrency management system is designed to ensure that prior to the issuance of a development order and development permit, the adopted level of service standards required within this Comprehensive Plan for roads, potable water, sanitary sewer, solid waste, drainage, and recreation and open space will be maintained.

The City has adopted policies within this Comprehensive Plan, which established level of service standards for public facilities; the concurrency management system in turn provides a mechanism for which the City can ensure the maintenance of the standards concurrent with the impacts of development.

In order to adopt a concurrency management system in the City of Dunnellon, three things are required. First, the City must adopt the concurrency management system as an amendment to the comprehensive plan. Section 1 contains the proposed amendment to the Capital Improvements Element to adopt the concurrency management system. Second, the City must amend the level of service standard for stormwater management. The standard contained in the comprehensive plan is no longer consistent with the requirements of the Southwest Florida Water Management District. Section 2 contains the proposed amendments necessary to adopt the current standard. Finally, the City must implement the concurrency management system with administrative procedures. Section 3 contains the administrative procedures for implementation.

Section 1. Amendment of the Capital Improvements Element

Concurrency Management System

The City shall review applications for development and a development approval shall be issued only if the proposed development does not lower the existing level of service of public facilities and services below the adopted level of service set forth in the Capital Improvements Element of this Comprehensive Plan.

1.1 Developments or redevelopments requiring the use of potable water, sanitary sewer, solid waste, or drainage facilities shall receive development orders subject to:

- The public facilities being in place at the time of issuance of the certificate of occupancy; or
- The provision of the facilities is guaranteed in an enforceable development agreement pursuant to Section 163.3220, *Florida Statutes*, or an agreement

or development order issued pursuant to Chapter 380, *Florida Statutes*, to be in place at the time of certificate of occupancy issuance.

1.2 Developments or redevelopments requiring the use of park and recreation facilities shall receive development orders subject to:

- The facilities and services are in place or under construction at the time of development order issuance; or
- Dedication of land and facilities or fees in lieu are committed by the time of certificate of occupancy issuance; and
- The development order is issued conditioned on the necessary facilities and services scheduled to be in place or under construction not more than one year after certificate of occupancy as provided in the Five-Year Schedule of Capital Improvements; or
- The necessary facilities are subject to a binding agreement which requires them to be in place or under construction not more than one year after certificate of occupancy issuance; or
- When the development order is issued, the facilities and services are guaranteed in an enforceable development agreement stipulating that they will be in place or under construction not more than one year after certificate of occupancy issuance.

1.3 Developments or redevelopments requiring the use of roads shall receive development orders subject to:

- The public facilities being in place or under construction at the time of issuance of the certificate of occupancy; or
- The development order is issued conditioned on the necessary facilities and services will be in place or under construction not more than three years after certificate of occupancy issuance as provided in the Schedule of Capital Improvements; or
- The landowner has made a binding commitment to the City to pay the fair share of the cost of providing transportation facilities necessary to serve the proposed development.

Section 2. Amendments to Update the Stormwater Management Level of Service Standard

The City of Dunnellon's existing Infrastructure Element contains a level of service standard for stormwater management facilities. The Southwest Florida Water Management District (SWFWMD) has revised its stormwater management facility water quantity and water quality standards. Therefore, Dunnellon's stormwater management level of service standard is proposed for revision by amending Policy 1.2.1 of the Infrastructure Element as follows:

Infrastructure Element

Policy 1.2.1: The following levels of service standards are hereby adopted:

Potable Water Facilities: 125 gallons per capita per day

Sanitary Sewer Facilities: 62 gallons per day per capita

Solid Waste Facilities: 5.3 pounds/capita/day

Drainage Facilities:

The City shall enforce a 25-year frequency, 24-hour duration, design storm level of service for open basins and a 100-year 24 hour duration level of service for closed basins as the basis for stormwater management system design for proposed new development and redevelopment projects, and for determining availability of facility capacity. Stormwater collection systems (including designs for minimum impacts to the natural water flow), transport systems, and allowable peak density rates shall meet requirements and specifications as defined in the City of Dunnellon Land Development Code. Developers will also be required to analyze the ultimate effects of stormwater disposal for all storm events, up to and including the 100-year, 24-hour duration, storm event. In addition, developers will comply where applicable with the SWFWMD flood control criteria for stormwater quantity and quality [Chapters 40D-4, 40D-40, and 40C-400, F.A.C.].

The demand for stormwater facility capacity by new development shall be determined based on the difference between the pre-development and post-development stormwater runoff characteristics (including rates and volumes) of the development site using the design storm level of service standard stated above and facility design procedures consistent with accepted engineering practice.

The City shall ameliorate the future discharge of inadequately treated stormwater runoff into waters and wetlands of the state by requiring that the first one-inch of runoff be retained on-site, or in the case of runoff entering any body of water designated an Outstanding Florida Water (OFW), the first one and a half inches shall conform to the standards used by SWFWMD and DEP.

~~a. Interim level of service for existing facilities: including those operated by the city:~~

~~Conveyance Systems All drainage swales and ditches shall be designed to convey the runoff generated from a 10-year, 24-hour storm event.~~

~~On arterials, culverts and cross-drains shall convey the runoff from a 10-year, 24-hour storm.~~

~~On collector roads, culverts and cross-drains shall convey the runoff from a 10-year, 24-hour storm.~~

~~On local roads and internal subdivision roads, culverts and cross-drains shall be designed to convey the runoff from a 10-year, 24-hour storm.~~

~~b. Improvements to existing facilities, including those operated by the City, as outlined in the Capital Improvements Element, and all new development and redevelopment shall be subject to the following level of service standards:~~

~~Water Quantity:~~

~~Conveyance Systems All drainage swales and ditches shall be designed to convey the runoff generated from a 25-year, 24-hour storm.~~

~~On collector roads, culverts and cross-drains shall convey the runoff from a 10-year, 24-hour storm.~~

~~On local roads and internal subdivision roads, culverts and cross-drains shall be designed to convey the runoff from a 10-year, 24-hour storm.~~

~~Water Quality:~~

~~Stormwater Management Systems Stormwater management systems shall be designed to either retain on-site the runoff generated by a 25-year, 24-hour storm or detain and discharge the runoff from a 25-year, 24-hour storm at peak discharge rates which do not exceed pre-development rates.~~

~~Water quality treatment, shall be provided for a volume equivalent to ¾-inch of depth over the entire site or the runoff from the first 1½-inch of rainfall on the entire site, consistent with Chapter 17-25,025(9), FAC, design criteria for Outstanding Florida Waters. All stormwater discharge facilities shall be designed so as to not degrade the receiving water body below the minimum conditions necessary to assure the suitability of water for the designated use of its classification as established in Chapter 17-302, FAC.~~

~~Site-specific conditions may require other design criteria to be satisfied in order to obtain Water Management District construction permits and shall meet the requirements of Chapter 40D-4, as well as the requirements of FDER Chapter 17-40-420, FAC, State Water Policy. To ensure compliance with those requirements, a~~

~~copy of a valid Water Management District permit or exemption letter shall be presented before building permits or development approvals are granted.~~

~~Single family, duplex, triplex and quadplex residential development not located directly on the water shall be exempt from this requirement, so long as stormwater runoff is accommodated by the City's facilities, in accordance with the level of service standards listed in b., above. However, all waterfront development, must meet the above standards.~~

Capital Improvements Element

The Capital Improvements Element contains a policy that reiterates the stormwater level of service policy language in the Infrastructure Element. This policy is proposed for deletion and replacement with a reference to the Infrastructure Element policy.

Policy 3-1g: The City shall implement the stormwater level of service standards adopted in the Infrastructure Element, Policy 1.2.1.

~~a. Interim level of service for existing facilities: including those operated by the city:~~

~~Conveyance Systems – All drainage swales and ditches shall be designed to convey the runoff generated from a 10-year, 24-hour storm event.~~

~~On arterials, culverts and cross-drains shall convey the runoff from a 10-year, 24-hour storm.~~

~~On collector roads, culverts and cross-drains shall convey the runoff from a 10-year, 24-hour storm.~~

~~On local roads and internal subdivision roads, culverts and cross-drains shall be designed to convey the runoff from a 10-year, 24-hour storm.~~

~~b. Improvements to existing facilities, including those operated by the City, as outlined in the Capital Improvements Element, and all new development and redevelopment shall be subject to the following level of service standards:~~

~~Water Quantity:~~

~~Conveyance Systems – All drainage swales and ditches shall be designed to convey the runoff generated from a 25-year, 24-hour storm.~~

~~On collector roads, culverts and cross-drains shall convey the runoff from a 10-year, 24-hour storm.~~

~~On local roads and internal subdivision roads, culverts and cross-drains shall be designed to convey the runoff from a 10-year, 24-hour storm.~~

~~Water Quality:~~

~~Stormwater Management Systems — Stormwater management systems shall be designed to either retain on-site the runoff generated by a 25-year, 24-hour storm or detain and discharge the runoff from a 25-year, 24-hour storm at peak discharge rates which do not exceed pre-development rates.~~

~~Water quality treatment, shall be provided for a volume equivalent to ¾-inch of depth over the entire site or the runoff from the first 1½-inch of rainfall on the entire site, consistent with Chapter 17-25,025(9), FAC, design criteria for Outstanding Florida Waters. All stormwater discharge facilities shall be designed so as to not degrade the receiving water body below the minimum conditions necessary to assure the suitability of water for the designated use of its classification as established in Chapter 17-302, FAC.~~

~~Site-specific conditions may require other design criteria to be satisfied in order to obtain Water Management District construction permits and shall meet the requirements of Chapter 40D-4, as well as the requirements of FDER Chapter 17-40-420, FAC, State Water Policy. To ensure compliance with those requirements, a copy of a valid Water Management District permit or exemption letter shall be presented before building permits or development approvals are granted.~~

~~Single family, duplex, triplex and quadplex residential development not located directly on the water shall be exempt from this requirement, so long as stormwater runoff is accommodated by the City's facilities, in accordance with the level of service standards listed in b., above. However, all waterfront development, must meet the above standards.~~

Section 3. Administrative Procedures to Implement the Concurrency Management System

3.1 Purpose and Overview

The City shall require a concurrency review be made with applications for development approvals and a Certificate of Concurrency issued prior to development. If the application is deemed concurrent, a Certificate of Concurrency will be issued by the City. If the development requires any other development permit, a copy of the Certificate of Concurrency shall be included with any future application for a development permit. A separate concurrency review shall not be required for each development permit for the same project. Concurrency review

addresses only the availability of public facilities and capacity of services and a Certificate of Concurrency does not represent overall development approval.

If the application for development is not concurrent, the applicant shall be notified that a certificate cannot be issued for the development. The burden of showing compliance with the adopted levels of service and meeting the concurrency test shall be upon the applicant.

3.2 Applicability

These minimum requirements shall be ensured as follows:

1. Building Permits. The issuance of a building permit has more of an immediate impact on the level of service for public facilities than may be the case with the issuance of other types of development orders. Therefore, building permits shall be issued only when the necessary facilities and services are in place. The determination of the existence of the necessary facilities and services in place shall be made by the City as part of the Certificate of Concurrency Compliance procedure. For roads, this determination shall apply to the adopted level of service standards for roads within the City's jurisdiction. All public facility impacts shall be determined based on the level of service of the facility throughout the facility geographical service area.

2. Other Types of Development Orders. Other types of development orders include, but are not limited to, approval of subdivisions, rezoning, special permits, and site plan approval. These other types of development orders have less immediate impacts on public facilities and services than the issuance of a building permit. However, public facilities and services must be available concurrent with the impacts of development permitted by other types of development orders. Therefore, subject to the City determining that the necessary facilities and services are in place and are maintaining the adopted level of service, the following concurrency management requirements shall apply for the issuance of development orders.

    a. Provisions shall be included within the development order, which shall require the construction of additional public facility capacity, where public facilities, due to the impacts of the development proposal do not meet the adopted level of service; and,

    b. Such provisions shall require the necessary public facilities be constructed by the developer and at the developer's expense, or by the public or private entity having jurisdictional authority over the facility to the adopted level of service so that the necessary facilities and services will be in place when the impacts of the development occur and within

conformance with the Five-year Schedule of Improvements found within the City's Capital Improvements Element.

3.3 Concurrency Determination Procedures

A concurrency test shall be made of the following public facilities and services for which level of service standards have been established in this Comprehensive Plan, which are (1) transportation, (2) sanitary sewer, (3) solid waste, (4) drainage, (5) potable water, and (6) recreation and open space.

The concurrency test for facilities and services will be determined by comparing the available capacity of a facility or service to the demand created by the proposed project. Available capacity will be determined by adding together the total excess capacity of existing facilities and the total capacity of any new facilities which meet the previously defined concurrency standards and subtracting any capacity committed through concurrency reservations or previously approved development orders.

1. For development orders and permits, the following determination procedures shall apply:

   a. If an applicant desires to determine whether there is sufficient capacity to accommodate their proposed project, the City shall make an informal non-binding determination of whether there appears to be sufficient capacity in the public facilities and services to satisfy the demands of the proposed project. If there appears to be insufficient capacity the City shall then make a determination of what public facilities or services would be deficient if the proposed project were approved.

   b. There are certain development approvals that are ineligible to receive concurrency reservation because they are too conceptual, and consequently, do not allow an accurate assessment of public facility impacts. These development approvals are future land use map amendments to the Comprehensive Plan and certain rezoning requests. Those development approvals shall receive a non-binding concurrency determination.

   c. Any concurrency determination, whether requested as part of an application for development approval or without an application for development approval, is a non-binding determination of what public facilities and services are available at the date of inquiry. The issuance of a Certificate of Concurrency Compliance shall be the only binding action, which reserves capacity for public facilities and services.

2. For roadways, the following determination procedures shall apply:

a. The City shall provide level of service information as set forth in the most recent Data and Analysis Report in support of the City's Comprehensive Plan. If this level of service information indicates a level of service failure, the applicant may either:

(1) Accept the level of service information as set forth in the most recent Data and Analysis Report supporting the City's Comprehensive Plan; or

(2) Prepare a more detailed Highway Capacity Analysis based upon a methodology acceptable to the City.

b. If the applicant chooses to do a more detailed analysis the (1) applicant shall submit the completed alternative analysis to the City for review, and (2) City shall review the alternative analysis for accuracy and appropriate application of the methodology.

c. If the alternative analysis, after review and acceptance by the City, indicates an acceptable level of service, the alternative analysis shall be used in place of the most recent Data and Analysis to support the City's Comprehensive Plan.

d. Any proposed development generating more than 250 trips a day shall be required to provide a trip distribution model, in addition to the requirements outlined above.

3. For sanitary sewer, solid waste, drainage, potable water, and recreation and open space the following determination procedures shall apply:

a. The City shall provide level of service information as set forth in the most recent Data and Analysis Report in support of the City's Comprehensive Plan.

b. If such level of service information indicates that the proposed project would not result in a level of service failure, the concurrency determination would be that adequate facility capacity at acceptable levels of service was available.

c. If such level of service information indicates that the proposed project would result in a level of service failure, the concurrency determination would be that adequate facility capacity at the acceptable levels of service was not available at the date of application or inquiry.

3.4 Priorities

In such cases where there are competing applications for public facility capacity, the following order of priority shall apply:

1. Issuance of a building permit based upon previously approved development orders permitting redevelopment;

2. Issuance of a building permit based upon previously approved development orders permitting new development;

3. Issuance of new development orders permitting redevelopment;

4. Issuance of new development orders permitting new development.

3.5 Conditions

In addition, the following conditions apply to the City's concurrency management system:

1. Amendments to the Comprehensive Plan can be made twice each year and as otherwise permitted as small scale developments. In addition, changes can be made to the Capital Improvements Element by ordinance if the changes are limited to the technical matters listed in Chapter 163, Part II, *Florida Statutes*.

2. No development order or development permit shall be issued which would require the City Council to delay or suspend construction of any of the capital improvements on the Five-year Schedule of Improvements of the Capital Improvements Element.

3. If by issuance of a development order or development permit a substitution of a comparable project on the Five-year Schedule of Improvements is proposed, the applicant may request the City to consider an amendment to the Five-year Schedule of Improvements in one of the twice annual amendment reviews.

4. The result of any development not meeting adopted level of service standards for public facilities shall be cessation of the affected development or the reduction of the standard for level of service (which requires an amendment to the Comprehensive Plan).

3.6 Certificate of Concurrency Compliance

A Certificate of Concurrency Compliance shall only be issued upon final development approval. The Certificate of Concurrency Compliance shall remain in effect for the same period of time as the development order or permit granting final

development approval. If the development approval does not have an expiration date, the Certificate of Concurrency Compliance shall be valid for twelve months from the date of issuance.

City of Dunnellon

Data & Analysis Report

Amendment of the Dunnellon Comprehensive Plan For the Future Land Use Element Conservation Element Concurrency Management System

November 2007

Prepare by
The Gail Easley Company
P. O. Box 1436
Crystal River, FL 34423
352-795-4920
easleyg@aol.com

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City of Dunnellon Proposed Comprehensive Plan Amendment
Future Land Use Element, Conservation Element,
and Concurrency Management System

DATA AND ANALYSIS

1.0 EXECUTIVE SUMMARY

The City of Dunnellon is updating its Future Land Use Element, Conservation Element, and Concurrency Management System. The most significant changes in land use from 1991 to 2007 result from annexation activity, which increased agricultural lands within the City. More detailed and accurate methods of mapping and analyzing mapped data have resulted in other significant changes to the data, but may not reflect an actual change in land use.

The issues of primary concern in Dunnellon are protection of Rainbow Springs, which lies outside of the City Limits, the Rainbow River, Withlacoochee River, and the natural resources associated with the rivers. Within the developed portion of the City, primary concerns are development and redevelopment along Pennsylvania Avenue, redevelopment within the Historic District, and protection of neighborhoods.

The data and analysis shows that all of the City of Dunnellon is located within a springshed, either for Rainbow Springs north of the City or the Kings Bay Group, located in Citrus County to the south. Because of the direct relationship between land use and springs protection, the City is focusing on methods to protect the springs through designating appropriate land uses, requiring that development connect to a central sewer system, and ensuring best management practices for agriculture. Where central sewer is not possible or will not be immediately available, the City is requiring performance based septic systems.

The goals, objectives, and policies have been developed to ensure springs protection, river shoreline protection, and resource protection. Land use categories have been revised to provide for two types of mixed-use development – traditional neighborhoods and large scale or community locations.

2.0 PUBLIC PARTICIPATION PROGRAM

A project initiation workshop was held April 19, 2007. About 35 people attended to learn about the project to update the Future Land Use Element, Conservation Element, and Concurrency Management System. Participants were able to ask questions, volunteer to assist in the process, and provide preliminary information about priorities for Dunnellon's growth and development.

Public meetings with the Planning Commission were held for review of data and analysis on April 30, June 19, July 17, and August 21, 2007.

General workshops on a variety of issues in the comprehensive plan were held on July 31, 2007, and September 18, 2007. Workshops on September 25 and October 2, 2007, addressed policy development for both land use and conservation issues. On October 16, 2007, the proposed Future Land Use Map and proposed goals, objectives, and policies for the Future Land Use and Conservation Elements were presented to the Planning Commission. A new concurrency management system was presented at this workshop. A workshop to review the complete proposed amendment was held October 30, 2007.

The transmittal workshops and hearings were as follows:

November 7, 2007 – Planning Commission (LPA) public hearing to recommend transmittal of the proposed plan amendment
November 7, 2007 – City Council workshop to consider the proposed plan amendment
November 13, 2007 – City Council public hearing to approve transmittal of the proposed plan amendment

3.0 DATA AND ANALYSIS

3.1 Introduction

The City of Dunnellon has determined that it is necessary to update its comprehensive plan in order to ensure adequate protection to the natural resources of the City. Located along the Rainbow and Withlacoochee Rivers, the City has extensive shoreline on both rivers. The Rainbow River flows from Rainbow Springs, and is joined by the Withlacoochee River in Dunnellon. Because of the rate of development since adoption of the comprehensive plan in 1991 and continued pressure for development that may degrade the quality of the rivers, the City wishes to update the Future Land Use Element and the Conservation Element as soon as possible.

The process for the City to update its plan is in two parts – preparation of the data and analysis is funded by a technical assistance grant from the Florida Department of Community Affairs. This preliminary report, dated April 30, 2007, serves as the initial grant deliverable, and contains the data and analysis for the Future Land Use Element that is available at this time.

3.1.1 Definitions

The City of Dunnellon relies on the definitions in Chapter 9J-5, *Florida Administrative Code*, and the land development regulations adopted by the City. In addition, the following terms are defined for use with the comprehensive plan.

Best Management Practices (BMPs) means practice or combination of practices, including non-structural structural improvements, based on sound science and

professional judgment to be the most effective and practicable means of carrying out the specified activity. BMPs are promulgated by government agencies such as the Florida Department of Agriculture and Consumer Services, the Florida Department of Environmental Protection, and the Florida Department of Community Affairs.

Naturalized plant species means vegetation that, while not native, has naturally adapted to the soils and climate of the area without direct or indirect human intervention. Acceptable species are found on the Florida-friendly plant database from the University of Florida Institute of Food and Agricultural Sciences or other similar database.

Wetlands means those areas that are saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soils. Wetlands are identified by the uniform methodology adopted in §373.421, *Florida Statutes.*

3.2 Future Land Use Element

3.2.1 Introduction

This section contains updated data and analysis to support the Future Land Use Element. Data sources are identified in each section below. The Conservation Element is being updated simultaneously with the Future Land Use. Data pertaining to natural resources is provided in Section 3.3; however, data summaries are provided within Section 3.2.

3.2.2 Population estimates and forecasts

The City of Dunnellon is expected to experience modest growth over the 20-year period from 2000 to 2020. While Marion County as a whole is expected to grow nearly 70% during that period, the City is expected to grow approximately 18.3%. These population estimates and forecasts are consistent with data regarding the creation of subdivisions and issuance of residential building permits. Growth in the southwestern portion of Marion County is focused north along U.S. 41 and in the Village of Rainbow Springs and Rainbow Lakes Estates.

Some new housing will be needed to accommodate the anticipated increase in population of nearly 350 people. The Future Land Use Map will need to reflect adequate land for the predominately single-family residential development expected to occur. Table 1 shows the estimated population in 2005 and forecasts for 2015 and 2020.

Table 1 Population Estimates and Forecasts						
Census 2000	Estimate 2005	Percentage Change 2000 - 2007	Forecast 2015	Percentage Change 2007 - 2015	Forecast 2020	Percentage Change 2015 - 2020
1,898	1,970	+ 3.8	2,161	+ 9.7	2,244	+ 3.8

Source: Florida Statistical Abstract 2006 by the Bureau of Economic and Business Research (BEBR) at the University of Florida – Table 1.25 (counties and cities: Census counts, April 2000, and population estimates April 1, 2005, in the state, counties, and municipalities of Florida); Shimberg Center for Affordable Housing, retrieved forecasts online, August 28, 2007.

A planning report for the US 41 corridor study, prepared by Marion County, shows a larger population growth for the City of Dunnellon. This report has a 2020 forecast of 2,652 people, a growth rate of 39.7% or twice that reflected in the Shimberg Center. The actual population increase from 2000 to 2020 is 754 people. At this time, the City has chosen to rely on the data from the Shimberg Center. The City's population as a portion of the County is more consistent over time using this data. The City will address population growth during preparation of its Evaluation and Appraisal Report.

3.2.3 Existing land use

A preliminary map of existing land use was produced using data from Marion County GIS and the property appraiser. The data was field checked on April 27, 2007. Further analysis and additional field checking was completed in July 2007. The updated map is included with this report.

A preliminary estimate of the acres of existing land uses, generated from the existing land use map, is shown in Table 2. The data shows the number of acres of existing land uses in 1991 and 2007 and the percent of change. The 1991 map was prepared by hand and calculations of acres were less precise than is possible through a Geographic Information System (GIS), which was used to produce the existing land use map for 2007 and to calculate the acres of each use. Further, the land use classifications from the Marion County Property Appraiser are not identical to the land use classifications used on the 2007 map. The 2007 land use classifications are more typical of planning documents.

In 1991, information was not available on the amount of right-of-way and areas devoted to utilities, transportation, and stormwater management facilities. It is possible that some areas considered recreation/open space in 1991 were devoted to stormwater management purposes and are more accurately classified in 2007. It is likely that some areas identified as water or wetlands in 1991 are now classified as conservation and some may also be included in the stormwater management category.

Table 2 Existing Land Uses			
Category	Acreage		
	1991	2007	Change (%)
Agriculture	1,369.0	2,056.5	+ 50.2
Single Family Residential	407.0	372.5	- 8.5
Duplex/Triplex/Quadplex	0	0.8	--
Mobile Home	47.0	32.7	- 30.4
Multi-family Residential	16.0	16.4	+ 2.5
Commercial	159.0	102.3	-35.7
Industrial	12.0	6.0	-50.0
Institutional	38.0	520.2	+126.9
Recreation/Open Space	110.0	13.8	- 87.5
Vacant	457.0	254.8	-44.2
Infrastructure			
ROW	N/A	48.7	NA
Utility/Transportation	N/A	160.9	NA
Stormwater Management	N/A	224.4	NA
Conservation		69.1	NA
Water and wetlands	354.0		NA
Total	2,969.0	3,879.0	+ 30.7

Source: Dunnellon Comprehensive Plan and The Gail Easley Company, 2007.

3.2.4 Natural resources

A. General information regarding natural resources

The predominant natural resources in Dunnellon are associated with the Rainbow and Withlacoochee Rivers. These rivers are depicted on the map of existing land use. Additional maps are attached to depict floodplains, soils, and wetlands. Other resources within Dunnellon may include habitats for listed species, shorelines, and commercial minerals. A detailed analysis of natural resources is provided in the Conservation Element Data and Analysis in Section 3.3. Summary information is provided below.

B. Water bodies and shorelines

The spring run, the Rainbow River, is a predominant feature in the City of Dunnellon. The Rainbow River flows south to the confluence of the Rainbow and Withlacoochee Rivers, which occurs in Dunnellon. The Withlacoochee River flows west to eventually empty into the Gulf of Mexico. The combined shoreline is over 11 miles. Much of the shoreline of these rivers is in residential development, mostly single-family residential use. A significant portion of the southern shoreline of the Rainbow River is undeveloped in the area known as Rainbow River Ranch. In the downtown area, public use and some multi-family development is along the Withlacoochee. Further west, land uses along the shoreline are recreational, open space, and a mix of single- and multi-family.

All of the City of Dunnellon lies within the springshed of either Rainbow Springs, which is to the north in unincorporated Marion County, or the Kings Bay Springs Group, in Crystal River within Citrus County, to the southwest. Specific information about springs protection is provided in Section 3.3.2.

C. Soils

The soils within the Dunnellon city limits consist of sand and its variations, clay and it variations, muck, and cultivated soils. To be able to use septic tanks within the Dunnellon city limits, the soil must be permeable, well drained, and not subjected to major depth changes of the water table during the wet season. The vacant parcels within the city limits of Dunnellon have the following seven predominate soil types: Anclote, Arents, Arrendondo, Candler, Placid, Tavares, and Urban Land. Candler and Arrendondo soils are ideal for the use of septic tanks due to their well drained to excessively drained sandy soil compositions, their depth of more than 80 inches to the water table, and the infrequency of flooding or ponding. Erosion levels are minimal, and this land is suitable for development. The Arents soil series is also a well drained soil series, but because of its particular composition of soils and its frequency to flood, it would not be an ideal for septic tanks. Placid and Anclote soils are subject to ponding, which results in this soil type being unsuitable for septic tanks. The chance of erosion is high, and the suitability for development is poor. The erosion level due to very poor drainage can fluctuate between low and moderate throughout the year.

Urban Land is more than 70 percent covered with shopping centers, parking lots, large buildings, streets, sidewalks, and other structures. Urban Land is primarily located in the commercial areas near the intersection of U.S. 41 (Williams Street) and CR 484 (Pennsylvania Avenue). The Tavares soil series is well drained, but due to its fluctuations with the water table and saturation levels during the wet season, it is not the most ideal soil for septic tanks. With some modifications, this soil would be suitable for septic tanks due to low to middle erosion levels and its moderate to high suitability for development.

Additional discussion of soil suitability is contained in Section 3.25 which addresses suitability of vacant land for development. A soils map is provided in this report.

D. Floodplains

Within the City Limits, the majority of land is in the "X" floodplain. As might be expected, the floodplain along the rivers is "AE". These two floodplain categories account for almost all land within the City. The floodplains are defined as follows by FEMA:

"A" means areas with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage. Because detailed analyses are not

performed for such areas, no depths or base flood elevations are shown within these zones.

"X" means areas outside the 1% annual chance floodplain, areas of 1% annual chance sheet flow flooding where average depths are less than 1 foot, areas of 1% annual chance stream flooding where the contributing drainage area is less than 1 square mile, or areas protected from the 1% annual chance flood by levees. No Base Flood Elevations or depths are shown within this zone. Insurance purchase is not required in these zones.

"AE" means areas with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage. In most instances, base flood elevations derived from detailed analyses are shown at selected intervals within these zones.

As the map of floodplains indicates, little of the land within Dunnellon is subject to flooding, except the land along the shores of the Rainbow and Withlacoochee Rivers. The comprehensive plan should include policies to ensure appropriate elevation of structures consistent with the flood zone in which development is proposed. The comprehensive plan should also require that appropriate land development regulations be adopted to ensure compliance with FEMA requirements and the policies in the plan. A map of the floodplains is provided in this report.

E. Wetlands

As expected, the areas with significant wetlands occur primarily along with Rainbow and Withlacoochee Rivers, with a few scattered wetlands in the southeast portion of the City. It is estimated that wetlands accounts for about 66 acres, or approximately 1.7% of land within the City. Wetlands within the City are predominately associated with the Rainbow and Withlacoochee Rivers. Numerous scattered wetlands are located near the Withlacoochee River southeast of the City. Because most wetlands are associated with the rivers, the important issue for protecting wetlands is to ensure that proposed development of waterfront and shoreline land also addresses wetlands protection.

F. Listed species and habitats

A survey conducted of the lower section of the Rainbow River shows that the American alligator, the Florida Manatee, and several bird species are known or likely to be found near the river. An inventory and discussion of endangered, threatened, and special concern species is found in Section 3.3.5.

G. Minerals

Dunnellon was once the location of phosphate mining. First discovered in 1888, hard rock phosphate mining ended in Dunnellon in 1965. The City is within a large area of western Marion County identified by the Florida Geological Society

as having phosphate. A small portion of the western part of the City is underlain with limestone. Since the City is entirely within the springshed of two first magnitude springs, mining is not an appropriate or acceptable activity. Therefore, additional information regarding minerals is not needed. While there is no mining activity at this time, the comprehensive plan should contain policies to ensure that mining continues to be prohibited.

3.2.5 Suitability of vacant land

A. Data required for a suitability analysis

Suitability is based on the availability of services and facilities to support development of the vacant land as well as the ability of the land itself to support development. The following data and analysis describes the availability of services and facilities to support development. The analysis of suitability is also based on the presence of natural resources, described above.

1. Water system

A map of the water service area is attached. As this map shows, water service is widely available in the most developed portions of the City.

The potable water system provides water to residential, commercial, and industrial customers. The City draws its water from the Floridan aquifer. The City has two operational water wells. A third well is capped and is not permitted for use. The City currently has only one 250,000-gallon elevated storage tank in operation. The potable water system has a permitted design capacity of 0.576 MGD.

According to the City, the potable water system continues to have problems with providing adequate pressure for domestic use and fire protection, particularly in the portion of the service area to the east of the Rainbow River.

Sources of this data are: Mr. Richard Grabbe, Director of Public Services, City of Dunnellon, interview on April 27, 2007, and Florida Department of Environmental Protection, 2006 Monthly Operating Reports - http://www.dep.state.fl.us/water/drinkingwater/flow.htm

2. Wastewater system

The City of Dunnellon owns and operates a centralized sanitary sewer system. A map of the service area is attached.

The system was installed over 80 years ago. Prior to 1960, the City discharged sanitary sewerage flows directly to the Rainbow River. In the 1960's, the City pumped those sanitary sewerage flows to a conventional trickling filter WWTP, which provided up to 0.250 MGD of secondary treatment capacity and discharged treated, disinfected effluent to the Rainbow River. In 1993, the City replaced that WWTP with the current WWTP that does not discharge to the Rainbow River. Treated effluent is

pumped from the WWTP to a spray field irrigation site located approximately one mile southeast of the WWTP. The City's wastewater treatment facilities promote water reuse through slow rate restricted public access spray field system, permitted for 0.250 million gallons per day (MGD) annual average daily flow (AADF), on 50.02 acres of upland area southeast of the City.

As of 2002, there were 11 miles of traditional gravity sewers and eight lift stations pumping sanitary sewerage to the City of Dunnellon Wastewater Treatment Plant (WWTP) located in the southeast portion of the City. The sanitary sewer service area, as depicted on the Sanitary Sewer Service Area map, is generally bordered by Rolling Hills Road to the west, Powell Road to the north, the Rainbow River to the east, and the Withlacoochee River to the south. Some existing sewer service connections are located along US 41, and an apartment complex is located to the north. Limited sewer service is also available around the southeast portion of Blue Cove Lake.

The City is in the process of a four (4) phase sanitary sewer system expansion. Phase 1 provided system improvements to reduce inflow and infiltration, increasing capacity available to customers by about 30,000 to 40,000 gallons per day

The City is currently in Phase 2 of the expansion of the sanitary sewer system. Phase 2 consists of the connection of Blue Cove, Hendrix Drive, Riverview, Vogt Springs/Nine Island Cove, and Indian Cove. After these 181 connections are made, it is anticipated that the average annual wastewater treatment flows will increase from 0.150 MGD to 0.195 MGD.

The City is planning for Phase 3, which will expand WWTP capacity to 0.420 MGD. Phase 3 is expected to commence in the 2008-2009 Fiscal Year. This work will correct system deficiencies and allow the removal of existing septic tanks within developed areas of the City.

The Phase 4 expansion, expected to occur in 2011, will provide 206 connections to Dunnellon Heights, Hillsdale/Powell Road, and Chatmire. Chatmire is located outside of the City limits. According to the City, there is no significant excess capacity available.

Sources of this data are: Mr. Richard Grabbe, Director of Public Services, City of Dunnellon, interview on April 27, 2007, and Jones Edmund & Associates, Inc. *Wastewater Collection System and Facilities Planning Study – City of Dunnellon,* September 2002.

3. Road system

The major components of the road system include one arterial, one collector, and a system of local roads. The arterial is U.S. 41 and the major collector is S.R. 40. Traffic counts, capacity information, and level of service information are provided below.

Traffic count data is provided in Table 3. Road capacity information is provided in Table 4. Current level of service and the adopted standard are shown in Table 5.

Table 3
Traffic Counts

Road Segment/ Map#	Location	Source	2006	5-Year Annual Growth Rate
U.S. 41				
I-1	1.027 mi N of C.R. 484	FDOT	19,400	3.51%
I-2	.549 mi N of C.R. 484	FDOT	24,000	5.15%
I-4	.01 N of Citrus Co. Line	FDOT	19,900	2.72%
C.R. 40	W of U.S. 41	MC	4,500	2.57%

Source: Ocala/Marion County Transportation Planning Organization, *Road Segment Information*, December 4, 2006.

Table 4
Road Capacity

Segment	From	To	Seg Length (mi)	LOS CAP	2005 AADT	V/C Ratio
U.S. 41	Citrus County	CR 484	0.33	32,800	19,700	60.06
U.S. 41	C.R. 484	SW 111th Place Lane	0.93	24,400	24,000	98.36
C.R. 40	Kennesaw Road	U.S. 41	1.35	17,300	4,075	23.55

Source: Ocala/Marion County Transportation Planning Organization, *Road Segment Information*, December 4, 2006.

U.S. 41 appears to be at capacity for the segment from C.R. 484 north to the City Limits, according to the TPO data. This may affect future development opportunities within the City, as U.S. 41 bisects the City and most land uses ultimately provide traffic to this arterial.

Table 5
Level of Service

Segment	From	To	Current LOS	LOS Standard
U.S. 41	Citrus County	C.R. 484	B	C
U.S. 41	C.R. 484	SW 111th Place Lane	C	C
C.R. 40	Kennesaw Road	U.S. 41	B	D
C.R. 40	Levy County	Kennesaw Road	B	D
Powell Road	C.R. 40	U.S. 41	B	D
C.R. 484	U.S. 41	SW 140th Avenue	D	D

Source: Marion County Planning Department, *U.S. 41 Study, 2007.*

The data in Table 5 shows that no roads are operating below the adopted level of service standard. However, U.S. 41 and C.R. 484 are operating at the level of service standard. According to the U.S. 41 Study, Map 13, planning

improvement projects include a new two-lane road to connect C.R. 40 near Kennesaw Road to U.S. 41 north of the City, adding two lanes to C.R. 484 from U.S. 41 beyond the City Limits to the east, adding two lanes to U.S. 41 from S.W. 111th Place north to the intersection with C.R. 40, and extending S.W. 180th Avenue south to the Withlacoochee River.

4. Septic tanks

A major issue regarding water quality of the Rainbow and Withlacoochee Rivers is pollution from septic tanks. As much development in and around Dunnellon is served by septic tanks, and preliminary indications are that central wastewater service is not available for new development, a more detailed discussion of soil conditions is provided below.

A map depicting the service area for the sewer system is attached. Development outside the service area is currently served by on-site septic systems. However, the City is moving toward the elimination of existing septic tanks as well as requiring that new development be connected to center sewer. An ordinance has been proposed and is currently under review to require that waterfront properties connect to central sewer. Further, the ordinance will require that when septic tanks are permissible (for example, when the central sewer system is not yet available), only performance-based septic systems will be allowed. Such systems must be designed to provide a recovered water product that contains not more than 10 mg/l of Total Nitrogen.

Soils in the area from the western City Limits to U.S. 41 including the areas from the Northern City Limit to the Withlacoochee River: The vacant parcels in this particular area have the following four predominate soil types: Candler, Placid, Arrendondo, and Arents. Candler and Arrendondo soils are ideal for the use of septic tanks due to their well drained to excessively drained sandy soil compositions, their depth of more than 80 inches to the water table, and the infrequency of flooding or ponding. Erosion levels are minimal, and this land is suitable for development. Arents are also a well drained soil series, but because of its composition as a mixture of many different soils and its frequency of flooding, it would not be an ideal soil series for septic tanks. The Placid soil series is located near the Withlacoochee River at Dunnellon's southern city limit. Placid soil suffers from being very poorly drained and is located near poorly defined drainage ways. This soil series would not be ideal for septic tanks or for future development since the water table remains within 10 inches of the surface for more than six months out of the year and the erosion level can fluctuate between low and moderate.

Soils in the area from U.S. 41 to the Rainbow River including the areas from the Northern City Limits to the Withlacoochee River: The vacant parcels in this particular area have the following four predominate soil types: Candler,

Arents, Arrendondo, and Urban Land. Candler and Arrendondo soils are ideal for the use of septic tanks due to their well drained to excessively drained sandy soil compositions, their depth of more than 80 inches to the water table, and the infrequency of flooding or ponding. Erosion levels are minimal, and this land is suitable for development. Arents are also a well drained soil series, but because of its composition as a mixture of many different soils and its frequency of flooding, it would not be an ideal soil for septic tanks. The bulk of the vacant parcels available in this area have Arents soil surrounding two large water bodies that are connected to the Rainbow River. Urban Land is more than 70 percent covered with shopping centers, parking lots, large buildings, streets, sidewalks, and other structures. Urban Land is primarily located in the commercial areas near the intersection of U.S. 41 (Williams Street) and C.R. 484 (Pennsylvania Avenue). With Urban Land, the observation of the soil is impossible. It is suitable soil for development.

Soils in the area from the Rainbow River to the Eastern City Limits including the areas from Northern City Limits to the Withlacoochee River: The bulk of this portion of the City of Dunnellon consists of agriculture, public/institutional, and single-family residential land use types. The vacant parcels in this particular area have the following four predominate soil types: Candler, Arents, Tavares, and Anclote. Candler soil series is ideal for the use of septic tanks due to their well drained to excessively drained sandy soil compositions, its depth of more than 80 inches to the water table, and the infrequency of flooding or ponding. Erosion levels are minimal, and this land is suitable for development. Arents are also a well drained soil series, but because of its composition as a mixture of many different soils and its frequency of flooding, it would not be an ideal soil for septic tanks. The Tavares soil series is well drained, but due to its fluctuations with the water table and saturation levels during the rainy season, it is not the most ideal soil for septic tanks. With some modifications, this soil would be suitable for septic tanks due to low to middle erosion levels and its moderate to high suitability for development. One vacant parcel located near the Withlacoochee River contains the Anclote soil series which is very poorly drained, and these particular soils are in depressions, on low flats, and along poorly defined drainage ways. The water table is within a depth of 10 inches for more than six months during most years. Depressional areas are covered with water for six months or more annually. Anclote soil is subjected to ponding, which results in this soil type being unsuitable for septic tanks. The chance of erosion is high, and the suitability for development is poor.

The information regarding soil suitability must be considered in light of likely density of development as well as other aspects of a suitability analysis.

5. Solid Waste

The City of Dunnellon contracts with a private waste hauler, Waste Management, Inc., for the collection and disposal of residential solid waste. Nonresidential uses contract individually with waste haulers to collect and dispose of solid waste. Currently, solid waste is disposed of at the Marion County landfill. Although, the Marion County Board of County Commissioners has recently approved construction of a solid waste transfer station and plans to dispose of solid waste at an out-of-state location.[1]

According to Waste Management, Inc., during the last calendar year 768.5 tons of curbside household waste and 400 tons of yard waste were collected in the City. The City has no level of service issues regarding solid waste as the current level of service does not exceed the standard adopted in the comprehensive plan.

6. Stormwater Management

In 2004, the City of Dunnellon conducted a watershed management study. The *Dunnellon Watershed Management Plan* was completed in 2004. Watershed management is a concern in Dunnellon because of discharges to the Rainbow River and wetlands. Also, the City must comply with Outstanding Florida Water criteria for stormwater management, which makes flooding problems more difficult to address.[2] Several stormwater management projects were identified in the plan. The City is moving forward with implementing these projects with assistance from the Southwest Florida Water Management District (SWFWMD).

The City's adopted level of service standard for stormwater management is not reflective of current district regulations. While this plan update is focused on land use and conservation, the Infrastructure and Capital Improvements Elements should be amended to update the level of service standard. The City's stormwater level of service should be revised to include the following:

- a 100-year, 24 hour duration storm as the basis for stormwater management system design and for determining availability of facility capacity,
- compliance with the SWFWMD flood control criteria for stormwater quantity and quality, and
- compliance with the Outstanding Florida Waters criteria.

7. Recreation

The data and analysis for the 1991 Recreation and Open Space Element included a thorough inventory of recreation facilities within the City of

[1] Marion County Solid Waste Department Website http://www.marioncountyfl.org/SW423/SW_Landfill.htm

[2] *Dunnellon Watershed Management Plan*. Presentation of Conceptual Alternatives. July 9, 2004. Jones, Edmunds, and Associates.

Dunnellon. Those recreation facilities included those owned by Marion County, the Marion County School Board, and the State of Florida in addition to those owned by the City. The City has approximately 146 acres of recreation land in its city limits.[3]

Open space was inventoried separately from recreation facilities in the 1991 data and analysis. There are approximately 808 acres of open space within the City limits. Of the total open space acreage, 135 acres are associated with recreational facilities. The balance of the open space is associated with abandoned railways, lakes, the Withlachoochee and Rainbow Rivers, and the Florida Barge Canal lands. The City has recreation land far in excess of that required by the combined level of service standard of four acres per 1,000 people.

3.2.6 Need for redevelopment

This City of Dunnellon has adopted a Community Redevelopment Area (CRA) and a CRA Plan. A structural condition survey was conducted for the CRA Plan. Further, the 2000 Census indicates that there are 23 substandard units in Dunnellon. This determination is based on the absence of complete kitchens, heat, or plumbing.

3.2.7 Annexations

Analysis of ordinances for annexation of property since 1991 shows that, while only a few annexations have occurred, the land added to the City accounts for over 900 hundred acres. Two large parcels were annexed to the northeast portion of the City and remain vacant. One is part of the Rainbow River Ranch and is the continuing topic of development discussion. The annexed land is designated currently for a combination of PUD, agriculture, residential medium density, commercial, and conservation uses. However, some of the lands annexed may have development limitations based on the suitability analysis. The City should consider the most appropriate land use categories for this significant vacant land. Other land was annexed for purposes of development at a Walmart store, which has since been constructed, and for a Lowe's, which is not being developed.

As future annexations may continue to occur, the City should consider the development of specific policies to guide decisions about annexation, service extension, and the determination of appropriate land use categories following annexation.

3.2.8 Forecast of land use needs

In order to prepare an accurate forecast of future land use needs, current estimates of housing units as well as forecasts of housing needs are required. The data sources – the 2000 Census and the Florida Housing Data Clearinghouse – provide different counts of housing units, ranging from 1,022 units reported by the Clearinghouse to 1,141 and 1,128 units reported by the Census, depending on which

[3] City of Dunnellon. Technical Memorandum: Data and Analysis for Recreation and Open/Space Element. Page 15.

table is used. The City has chosen to rely on the population data from the Shimberg Center for Affordable Housing and will also rely on the housing forecasts from the Housing Data Clearinghouse. This information shows that from 2005 to 2020 an additional 161 units of single-family housing and an additional 40 units of multi-family housing will be needed. Multi-family housing in Dunnellon is typically located in small complexes. Therefore, the land needs for 40 additional units is small.

The proposed Future Land Use Map shows land available for residential development, either as exclusive residential use, or in combination with nonresidential uses in traditional neighborhoods or larger mixed-use developments. The land available for residential development is sufficient to accommodate the anticipated housing needs.

Table 6
Demand for Housing

Est. 2002 Housing Units By Type		Projected Demand By Type							
Single Family	Multi-Family	2005		2010		2015		2025	
		SF	MF	SF	MF	SF	MF	SF	MF
819	203	829	206	863	215	906	225	990	246

Source: Florida Housing Data Clearinghouse
http://flhousingdata.shimberg.ufl.edu

At this point, the population forecast is for a modest increase in population over a 20-year period. Commercial development in Dunnellon is largely neighborhood and community serving, with the exception of a discount supercenter store that serves a larger region. However, as the City is located between Inverness and Crystal River to the south and Ocala and urbanized Marion County to the northeast, it does not serve a major role as a regional center for most types of commercial development. During public workshops a clear need has been identified for business uses that better serve the residents and visitors to the City. Such business or commercial use would be focused on neighborhood-serving, community-serving, and tourist-oriented uses. The proposed Future Land Use Map shows locations where mixed uses and commercial uses can be located to fulfill these needs.

It is not likely that additional land should be designated for institutional, public, or recreational uses, as enough land is now available. Conservation land is designated based on the need to protect natural resources. Agriculturally designated lands have typically been annexed into the City and were designated for agricultural use by Marion County. Until there is a need for residential or nonresidential use for this land based on a needs analysis, the land will remain agriculture.

The City should revisit the issue of nonresidential development when the Evaluation and Appraisal Report is prepared. At that time newer population

information will be available from the Census and can be analyzed further to verify or modify the forecast. The new population information may result in a need to make some modifications in the land use allocations for nonresidential purposes.

3.3 Conservation Element

3.3.1 Introduction

The presence of natural resources has been a major determinant of the types and patterns of land use in Dunnellon. Conservation issues of water bodies, shorelines, soils, floodplains, wetlands, and minerals were discussed in Section 3.2.4 of this report. In addition, data and analysis regarding springs, springsheds, water quality, aquifer recharge, vegetative communities, listed species, and pollution sources are discussed in this portion of the data and analysis report.

3.3.2 Springs

A. Springsheds

The springshed for Rainbow Springs extends into the City of Dunnellon. Protection of the springs and Blue Run, also called the Rainbow River, is a key issue in the City. The issues pertaining to protection of springs include protection of the aquifer through control of consumptive use, ensuring recharge of the aquifer by limiting those activities on the surface of the land that prohibit or limit recharge, and ensuring quality of the water in the aquifer through prohibiting or limiting activities that introduce pollutants into the water. The City cannot address consumptive use, as this matter is controlled through the permitting processes of the water management district. However, the determination of appropriate land uses, the density and intensity of land uses, and the site design practices of establishing the permissible land uses are all the responsibility of the City.

The springshed for the Kings Bay Springs Group also extends northward into the City of Dunnellon, with the result that the City is entirely within the springshed for two first magnitude springs.

B. Threats to water quality

The major threats to water quality in the aquifer, and thus in the Rainbow Springs, Rainbow River, Withlacoochee River, Kings Bay Springs, and the rivers fed from the Kings Bay Springs Group are summarized below:

1. Landscaping and lawn care affect springs in two ways. First, maintaining lawns and landscaping typically involves large amounts of water. The water consumption for landscaping can ultimately reduce spring flows. Secondly, fertilizers and other chemicals used in managing landscaping and lawns are a source of pollution and contribute nitrates to the aquifer. Invasive species may be introduced that result in rapid growth of the vegetation, choking springs and spring runs.

2. Springs and spring runs are desirable locations for recreation activities – swimming, tubing, and other water sports. Access to the springs by foot traffic for swimming or launching watercraft results in bank erosion and often results in trampling native vegetation located around and near the springs. Water activities can increase turbidity of the water, while the concentration of people results in increases in trash and the resulting pollution of the water.
3. The creation of impervious surfaces reduces recharge. As homes and businesses are built, the natural areas that once permitted great quantities of water to recharge the aquifer are either compacted or converted to impervious surfaces. Instead of soaking into the soil and then recharging the aquifer, water flows off landscape parking lots, roofs, and streets, increasing the quantity of stormwater. Thus, the percentage of rainfall available to recharge the aquifer is reduced.
4. Pollutants from wastewater are a major concern. There are few areas in the City where soils are suitable for septic tanks. See Section 3.2.4(C) for a discussion of soils.

Additional information about Rainbow Springs, the Rainbow River, and the Withlacoochee River from the Southwest Florida Water Management District and a report prepared for Marion County is provided in the appendix.

Fortunately, good choices about land use and the design of development can protect springs and associated features and can eventually restore springs to health. As the City develops in goals, objectives, and polices, there should be new policy language to ensure protection of the springshed, shorelines, and the aquifer.

3.3.3 Aquifer

Florida's springs occur where the level of water in the aquifer (called the potentiometric surface) is higher than the ground level. An imaginary line can be drawn around discharge areas where the potentiometric surface exceeds the ground level, dividing the aquifer recharge area from the area where water, under pressure, rises from the aquifer and becomes surface water. Artesian springs are located within the discharge areas. Springs occur where the aquifer is, generally, close to land surface and is penetrated by linked fractures or channels that reach the surface. In discharge areas, the pressure in the aquifer forces water up through the soils and sandy overburden covering the rock, creating wetlands or augmenting stream flows.

Recharge areas for the Floridan Aquifer are of critical concern because these areas are the sources which replenish the aquifer. A study of US 41, prepared by the Marion County Planning Department, identified recharge zones in and around Dunnellon. A map of the study area depicting recharge zone is included in this report. In general, the map shows that most of the City has no recharge or even indicates discharge. However, the northwest area, a portion of the north US 41

corridor, and the northeast part of the City have moderate to high recharge. Where high recharge areas are located, particular attention should be directed to establishing objectives and policies that ensure the continuation of recharge and the avoidance of pollution.

3.3.4 Vegetative communities

Vegetative communities, also called plant communities, are shown on a map attached to this report. Within the City of Dunnellon, there are nine broad categories of vegetative cover. They are: Agriculture; Barren Land; Rangeland; Special Classifications; Transportation, Communication, and Utilities; Upland Forests; Urban and Built-Up; Water; and Wetlands.

Vacant land is scattered throughout the City Limits, but the highest concentration of vacant land is located off Pennsylvania Avenue (CR 484) on the eastern side of town. The vegetative cover sub-categories that are located on the vacant land are Hardwood-Coniferous Mixed, Residential – Medium Density, Residential – Low Density, Commercial and Services, Open Land, and Streams and Lake Swamps. Residential – Medium Density, Residential – Low Density, Commercial and Services, and Open Land are represented by the Urban and Built-Up category; Hardwood-Coniferous is represented by the Upland Forests category, and the Streams and Lake Swamps is represented by the Wetlands category. The primary wetland areas located within the City Limits are in the northwest section of the City, on the eastern banks of the Rainbow River, and on the western banks of the Withlacoochee River. Although there are some vacant parcels that border a wetlands area near the northwest section of the City, there are no vacant parcels that are located near wetland areas on the banks of the Withlacoochee or Rainbow Rivers.

3.3.5 Listed species

A list of endangered, threatened, and species of special concern that are known or likely to occur in Dunnellon is provided below. The habitats for these listed species are typically associated with the bodies of water, shorelines, and wetlands present in Dunnellon. Therefore, objectives and policies to ensure protection of these resources should also address preservation and protection of the habitats for these listed species. The City should also ensure that other listed species are identified during site planning and that protective measures are established as a condition of any approval of future site plans and subdivision plats.

Table 7
Endangered, Threatened, and Species of Special Concern
Observed or Likely to Occur in Dunnellon

Common Name	Scientific Name	State	Federal
Reptiles			
American alligator	*Alligator mississipiensis*	SSC	T(s/a)

Birds			
Limpkin	*Aramus guarauna*	SSC	n/a
Little blue heron	*Egretta caelulea*	SSC	n/a
Snowy egret	*Egretta thula*	SSC	n/a
Tricolor heron	*Egretta tricolor*	SSC	n/a
Bald eagle	*Haliaeetus leucocephalus*	T	E
Wood stork	*Mycteria americana*	E	E
Mammals			
Florida manatee	*Trichechus manatus*	E	E
Plants			
Cardinal flower	Lobelia cardinalis	T	n/a

SSC – species of special concern
T – threatened
E – endangered
Sources: *Survey of Birds Along the Lower Rainbow River in Dunnellon, Florida,* Spring 2006, written and published by Sandra and Paul Marraffino, 4/17/06.
Rainbow River Surface water Improvement and Management (SWIM) Plan, April 2004. Southwest Florida Water Management District, Tampa, FL

3.3.6 Pollution sources

Both point sources and nonpoint sources of pollution are present within the City. According to Appendix C in the *2004 Rainbow River SWIM Study*, although water quality in the river is good, nitrates in Rainbow Springs have steadily increased over the past fifty years. Nitrate concentrations in the headsprings are about 1.0 mg/L (Jones, *et al.* 1996; SWFWMD 2002, unpublished data) while nitrate concentrations in the 1940's and 1950's have been less than 0.1 mg/L (Odom 1957; Jones et al. 1996). Background nitrate concentrations in the Floridan aquifer are typically less than 0.1 mg/L (Jones, et al. 1996). Although current nitrate concentrations in Rainbow Springs are considered low when compared to other river systems statewide, this change represents a significant increase over the past half century. Furthermore, when considering the total discharge of Rainbow Springs (460 mgd), 1.0 mg/L nitrate results in a total nitrate load of approximately 700 tons annually. This means that the annual nitrate loading into Rainbow Springs today is 700 times greater than it was when nitrates were at background concentrations. Nitrogen isotope analyses, at Rainbow Springs, indicate that inorganic fertilizer is the principle source of nitrate discharging from the springs (Jones et al. 1996).

Within the City of Dunnellon, point source pollution is caused by underground storage tanks. Underground storage tanks are used by two types of facilities within the Dunnellon city limits: retail centers (Type A) and fuel centers/non-retail (Type C). The content of these underground storage tanks consists of unleaded gas, vehicular diesel, or emergency generator diesel and the status of the tanks are either in service or closed in place. The amount of pollutants released into the surface water supply as a result of either the in service or closed in place tanks is still being determined.

Non-point sources of pollution are the most prevalent pollutant in the City of Dunnellon and in the Rainbow and Withlacoochee Rivers. These non-point sources include urban/stormwater runoff, septic tanks, boating activities, and on-site sewage disposal facilities.

Appendices

- Excerpt from *The Hydrology and Water Quality of select Springs in the Southwest Florida Water Management District*, prepared by the Water Quality Monitoring Program, SWFWMD, May 2001.
- Excerpt from Marion County Water Resource Assessment and Management Study – Final Report Summary

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Excerpt from
The Hydrology and Water Quality of select Springs in the Southwest Florida Water Management District, prepared by the Water Quality Monitoring Program, SWFWMD, May 2001.

Rainbow Springs Group

The Rainbow Springs group (Figure 12) is the fourth largest spring system in terms of discharge in Florida [70]. The group is the second largest spring group in the SWFWMD and in Marion County. Rainbow Springs is generally considered to be the group of springs in the area that encompasses the first 1.5 miles of the Rainbow River [11].

Like many of the major springs in Florida, Rainbow Springs is composed of numerous vents distributed over a large area, rather than a single, very large discharge point. In addition to the springs at the head of the river, numerous springs discharge into the bed of the river through most of its length. A number of small springs also feed Indian Creek, a tributary that flows southwest and intersects the Rainbow River about one mile south of the headspring area. Springs that comprise the Rainbow Springs group and are included in this report are: Bridge Seep North, Rainbow Springs #1, Rainbow Springs #4, Bubbling Spring, Rainbow Springs #6, and Rainbow Swamp Spring #3.

Discharge

Historically, the average annual discharge at Rainbow Springs is approximately 459 mgd [70]. The total discharge of Rainbow Springs is represented by the cumulative discharge of springs in the headspring area, springs in the bed of the river, and springs along Indian Creek. Discharge of the Rainbow River is regularly measured by the USGS approximately five miles downstream from the headspring area at the C.R. 484 bridge, and about one-half mile above the confluence of the Withlacoochee and Rainbow Rivers. Eighty-nine percent of the rivers discharge, as measured at the C.R. 484 bridge, enters the river in the first 1.5 miles [11].

Discharge exhibits significant seasonality, reaching a minimum at the end of the dry season in June and peaking in October, after the end of the summer wet season. This pattern indicates that the lag time between seasonal changes in rainfall and the response of the system is minimal. The pattern also indicates that the circulation of ground water in the Floridan aquifer is open and vigorous and the

springs are largely recharged by precipitation falling in close proximity (5-10 mile radius) of the springs.

Water Quality

Ground water discharging at Rainbow Springs is fresh, typically containing less than 200 mg/l TDS. Water quality varies slightly across the spring group; sulfate concentrations increasing from less than 10 mg/l in the headspring area to greater than *30* mg/l in springs near the confluence of Rainbow River and Indian Creek. Chloride concentrations in the springs are generally less than 10 mg/l indicating that the springs are recharged by precipitation falling in close proximity to the springs (11).

Nitrate concentrations at Rainbow Springs are significantly elevated above background concentration measured in the Floridan aquifer (0.01 mg/l). Nitrate concentrations vary among the individual springs of the group; however, concentrations are typically around 1 mg/l. Research conducted by the WQMP indicates that the nitrate discharging from the springs is derived from an inorganic source of nitrate, namely inorganic fertilizers applied to pasture areas near the springs(11).

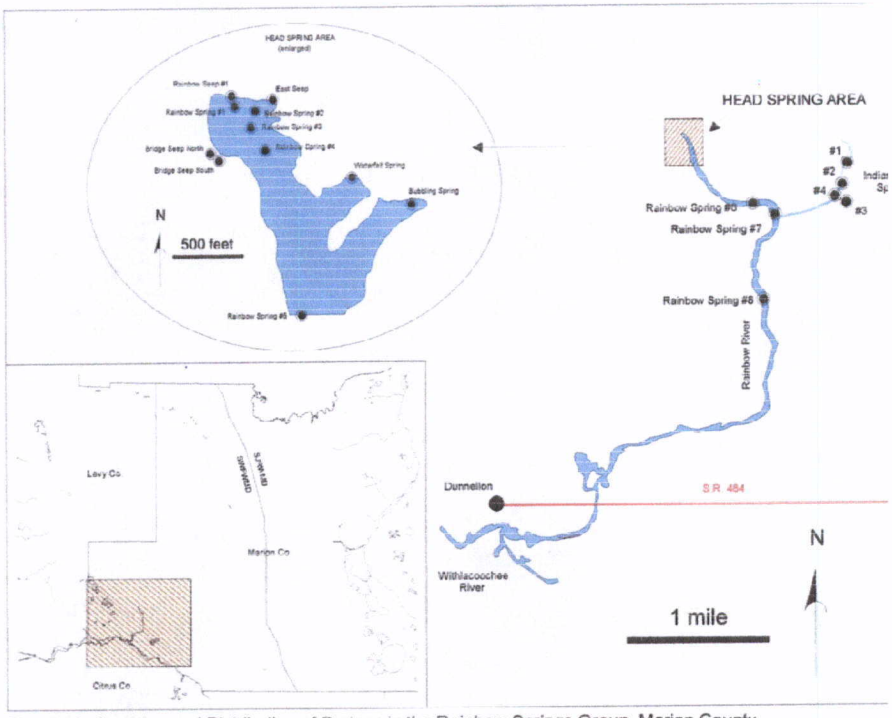


Figure 12. Location and Distribution of Springs in the Rainbow Springs Group, Marion County.

Marion County Water Resource Assessment and Management Study – Final Report Summary

Rainbow Springs, the Rainbow River, and the Withlacoochee River are all located within or near the City of Dunnellon, Florida. Rainbow Springs, near the City of Dunnellon, is the second largest spring in Marion County. The Marion County Water Resource Assessment and Management Study was completed in April 2007 to evaluate all water sources throughout Marion County. The findings and recommendations for these three water bodies are listed below.

Rainbow Springs

Findings

- Water quality at Rainbow Springs has been degraded by increasing nitrate levels in the local and regional groundwater systems that feed the springs.
- The origin of much of the nitrate discharging from the numerous springs and seeps associated with Rainbow Springs group is inorganic fertilizer, though septic tanks and animal waste contribute organic nitrogen.
- The drinking water Maximum Contaminant Level (MCL) for nitrate of 10 mg/L does not yet appear to have been exceeded regionally in the Rainbow Springs groundwater basin.
- Naturally occurring nitrate background levels of <0.10 mg/L have increased with man-made contamination eight fold to 0.82 mg/L. The period of 1994-2004 has seen a 100 percent nitrate increase from an average of 0.42 mg/L to 0.82 mg/L.
- Modeling was done based on two standards and the effects were measured against baseline levels (1995 spring discharge scenario and water use) and projected 2025 and 2055 levels.
  - The effects of potential future groundwater withdrawals
  - The effects of the a hypothetical withdrawal from large, remote wellfields (an evaluation of future supply using a scenario that applied a 10 mgd withdrawal from each of three hypothetical wellfields and a separate scenario where 30 mgd was withdrawn from only one wellfield. Finally, the County is developing springs protection ordinances to protect Silver and Rainbow Springs. Springsheds and protection zones have been identified for each spring. New wellfields are not within the protection zones under this protection plan. There is an area in north-central Marion County that is either at the distal margins of the protection zones or outside of them. The question deals with whether, or not, a wellfield in this location would cause significant harm to the springs.)
  - The follow are the results of the impact of the conceptual Marion County wellfields on spring discharge (cfs):

Spring	Baseline	2025 Use (10)	2025 Use (30)	2055 Use (10)	2055 Use (30)	MFL Screening Discharge	MFL Potentially Violated
Rainbow	651.41	638.55	640.00	617.42	618.86	637.00	Yes

- Rainbow Springs would feel the effects of both modeling scenarios around 2055 if nothing is done to prevent the degradation as a result of increasing nitrate levels.

Recommendations

- Marion County should complete a wellfield siting analysis to determine the most effective locations for future groundwater withdrawals. The evaluation will provide the County with better insight as to exact locations for future groundwater development and allow the opportunity to preserve the land through public land acquisition programs. The evaluation should consideration [sic]of the Rainbow Springs MFL (scheduled for adoption in 2009).

Rainbow River

Findings

- The quality of rivers in Marion County range from fair to good.
- Water quality, in the Rainbow River, reflects its origin as groundwater.
- The springs and their run (Rainbow River) are not considered as surface water sources, because groundwater contributes their base flow and has already been accounted for in the groundwater evaluation.
- The Rainbow River represents a dividing line that determines the upper and lower reaches of the Withlacoochee River. The Lower Reach of the Withlacoochee River which goes downstream from the Rainbow River to the County line, including portions of Lake Rousseau, has somewhat more potential for water supply development because it captures the discharge from Rainbow Springs and Lake Rousseau may serve as a reservoir. Treatment, pipeline costs, and competing uses may limit feasibility.

Recommendations

- No recommendations were provided that specifically address the Rainbow River.

Withlacoochee River

Findings

- Results of a preliminary water availability analysis indicate that combined withdrawals from the Withlacoochee River system and the Ocklawaha River system could [be] 100 mgd or more, although the rivers traverse a number of jurisdictions other than Marion County where withdrawals could occur.

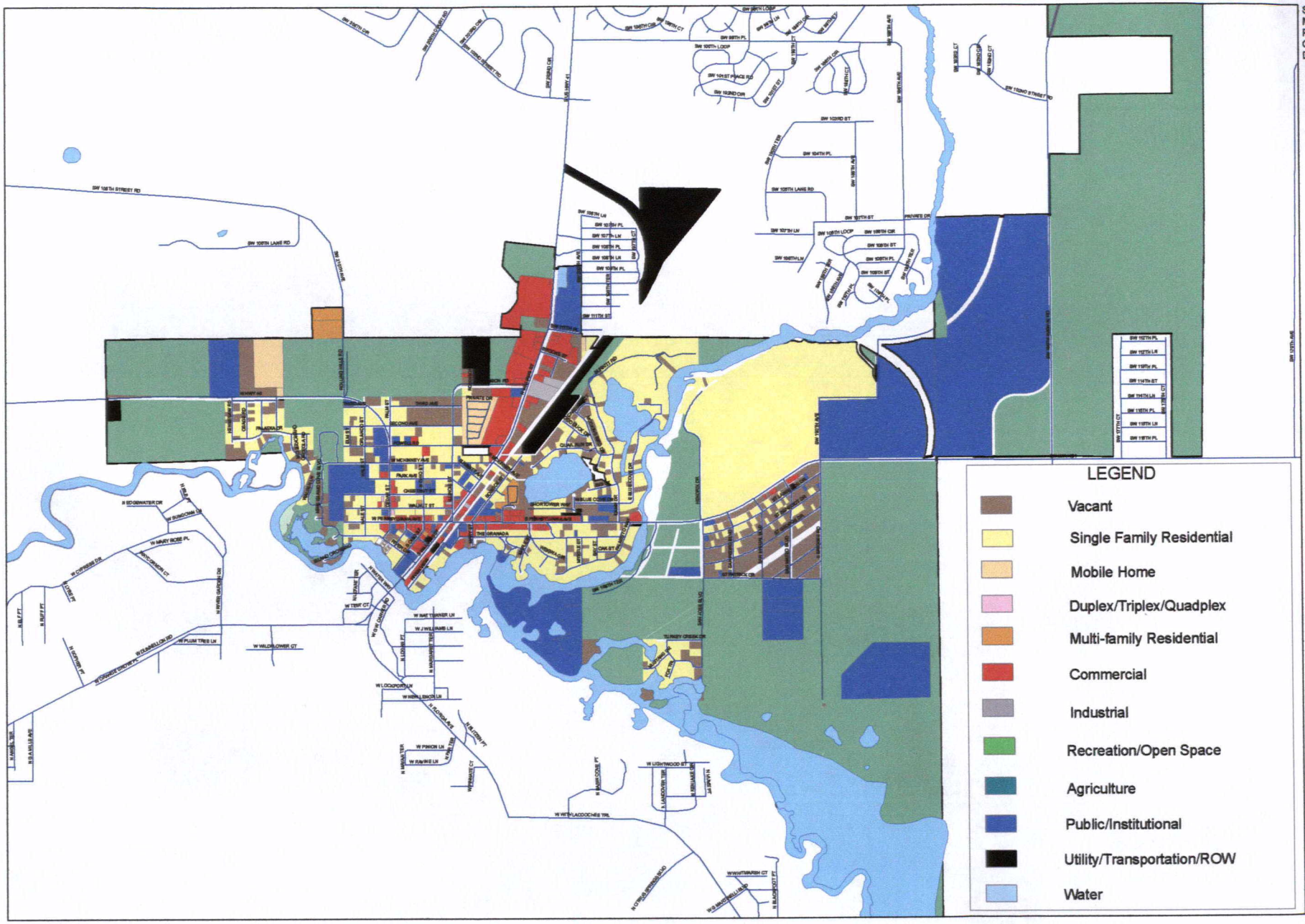
Recommendations

- Marion County should ensure that water use impact decisions by the Districts based on ground water models be reviewed for the County by an expert familiar with modeling and Marion County hydrogeology.

- Marion County should complete a withdrawal siting evaluation of surface water locations in the Withlacoochee River system and in the Ocklawaha River system.

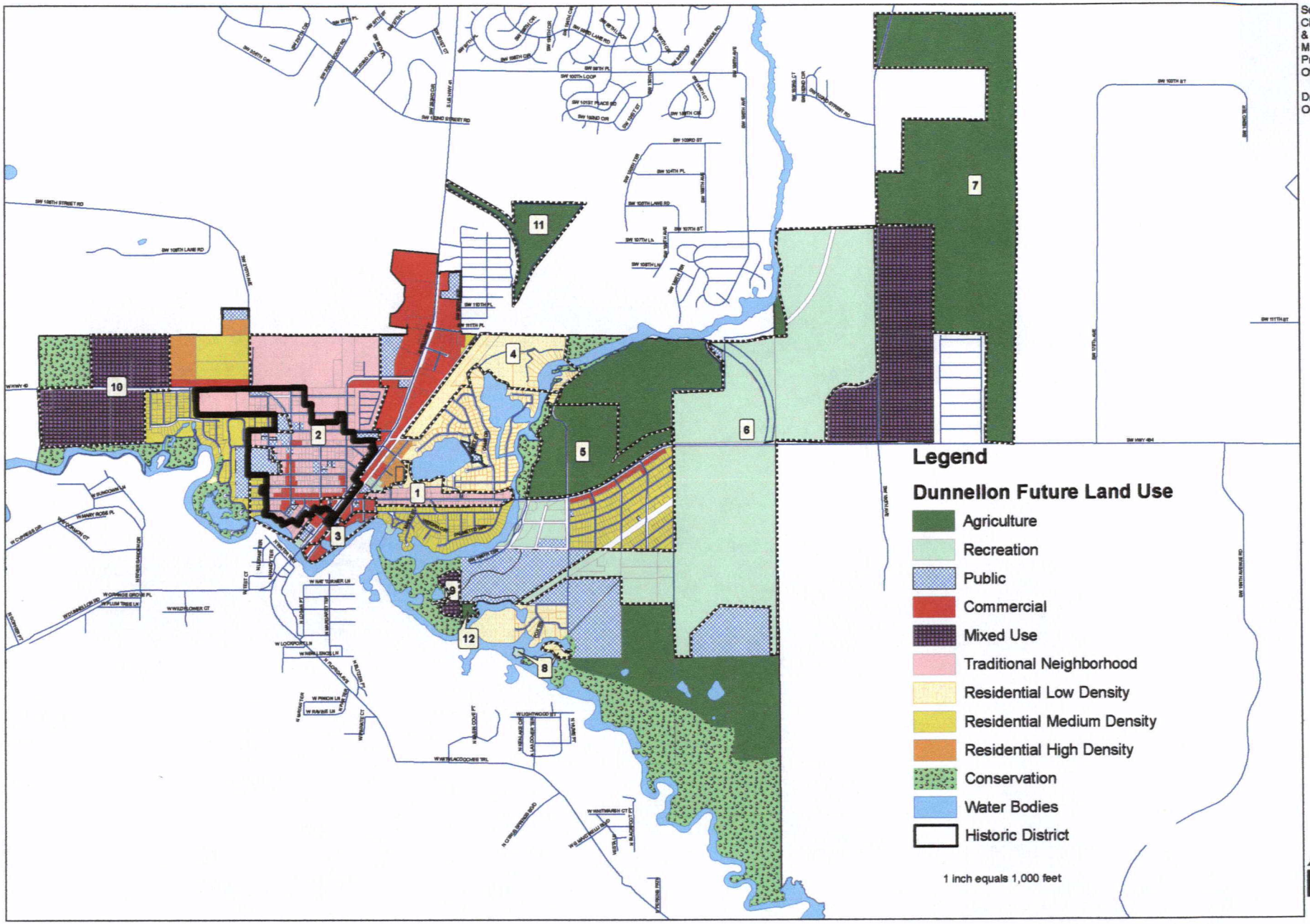
Maps

- Existing Land Use
- Floodplain
- Soils
- Wetlands
- Water Service Area
- Sanitary Sewer Service
- Rainbow Springs Watershed



Source:
Marion County
Property Appraiser's
Office
Date: August 28, 2007

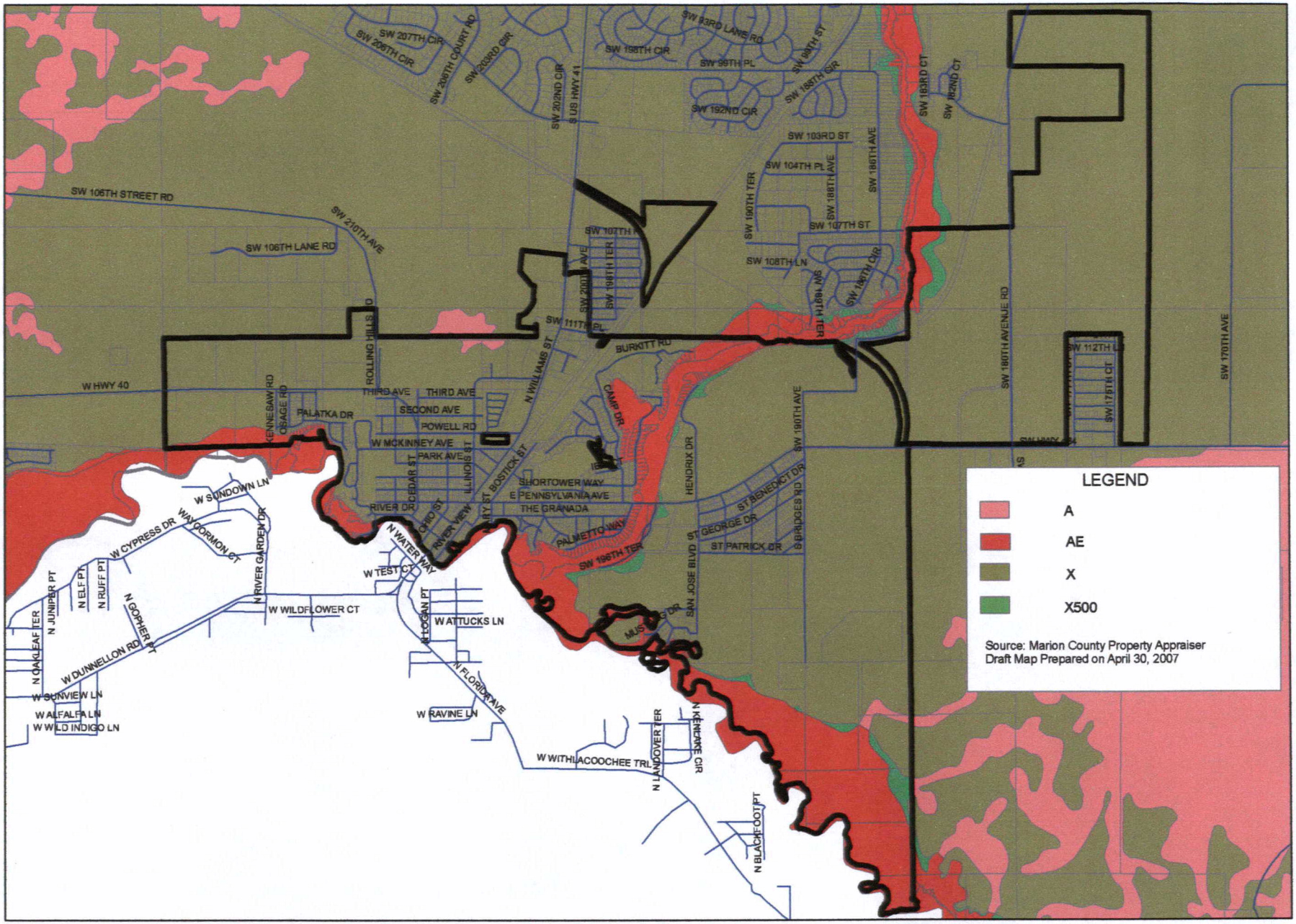
City of Dunnellon Draft Existing Land Use Map



Source:
City of Dunnellon
&
Marion County
Property Appraiser's
Office

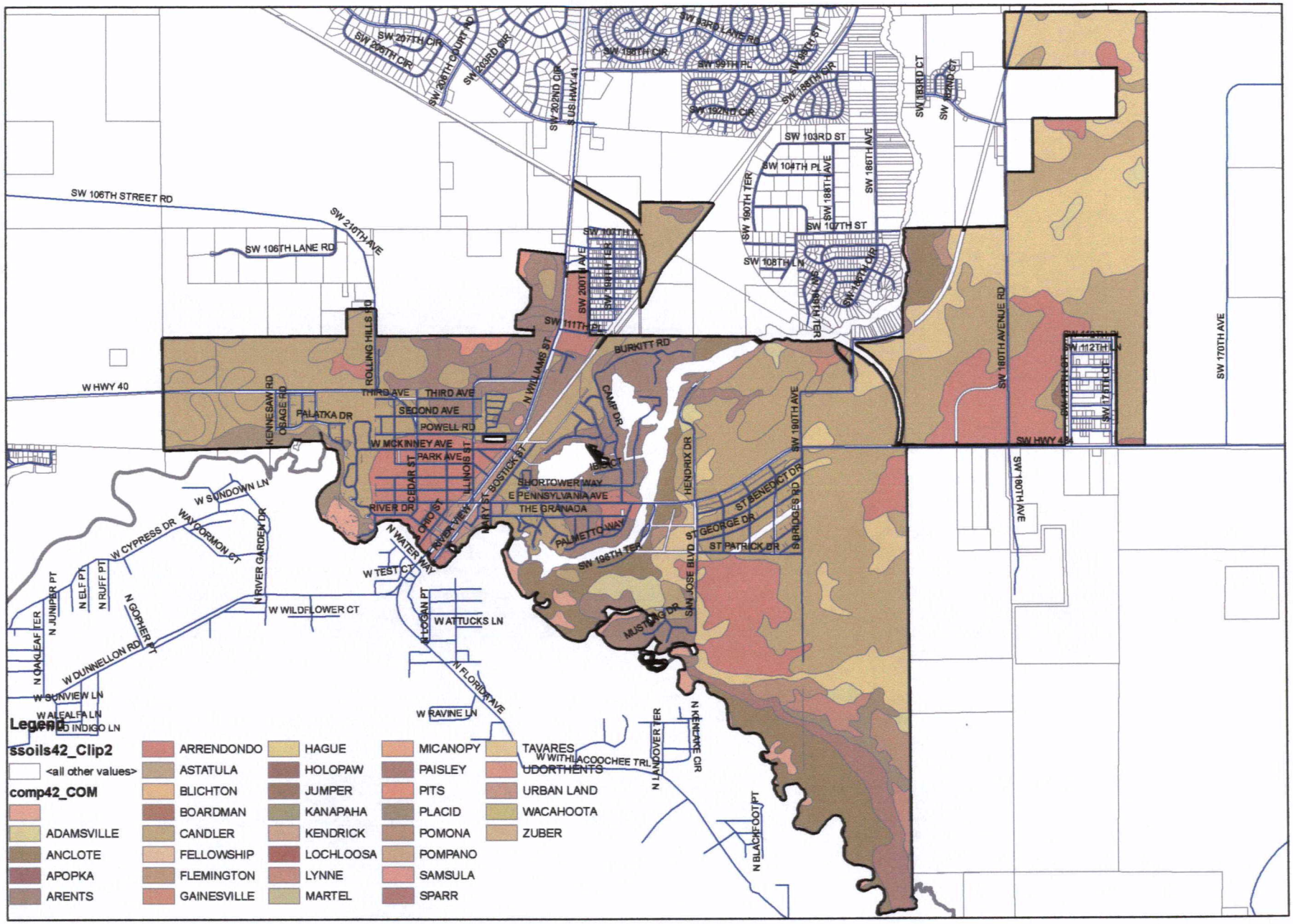
Draft Date:
October 14, 2008

City of Dunnellon Proposed Future Land Use Map with Historic District



City of Dunnellon Draft Floodplain Map

NORTH



Legend

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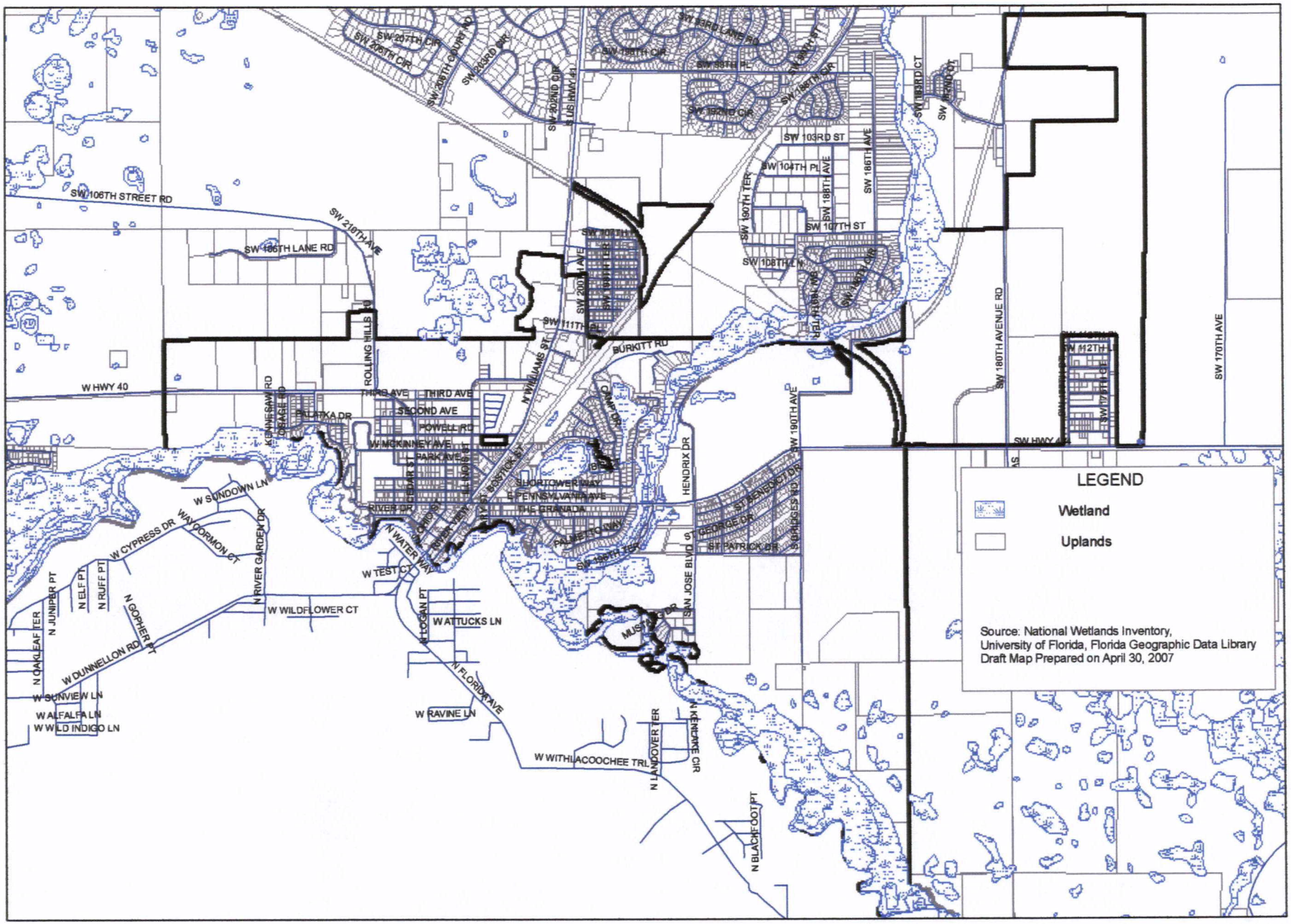
- FELLOWSHIP
- FLEMINGTON
- GAINESVILLE
- HAGUE
- HOLOPAW
- JUMPER
- KANAPAHA
- KENDRICK
- LOCHLOOSA
- LYNNE
- MARTEL
- MICANOPY
- PAISLEY
- PITS
- PLACID
- POMONA
- POMPANO
- SAMSULA
- SPARR
- TAVARES
- UDORTHENTS
- URBAN LAND
- WACAHOOTA
- ZUBER

City of Dunnellon Draft Soils Map

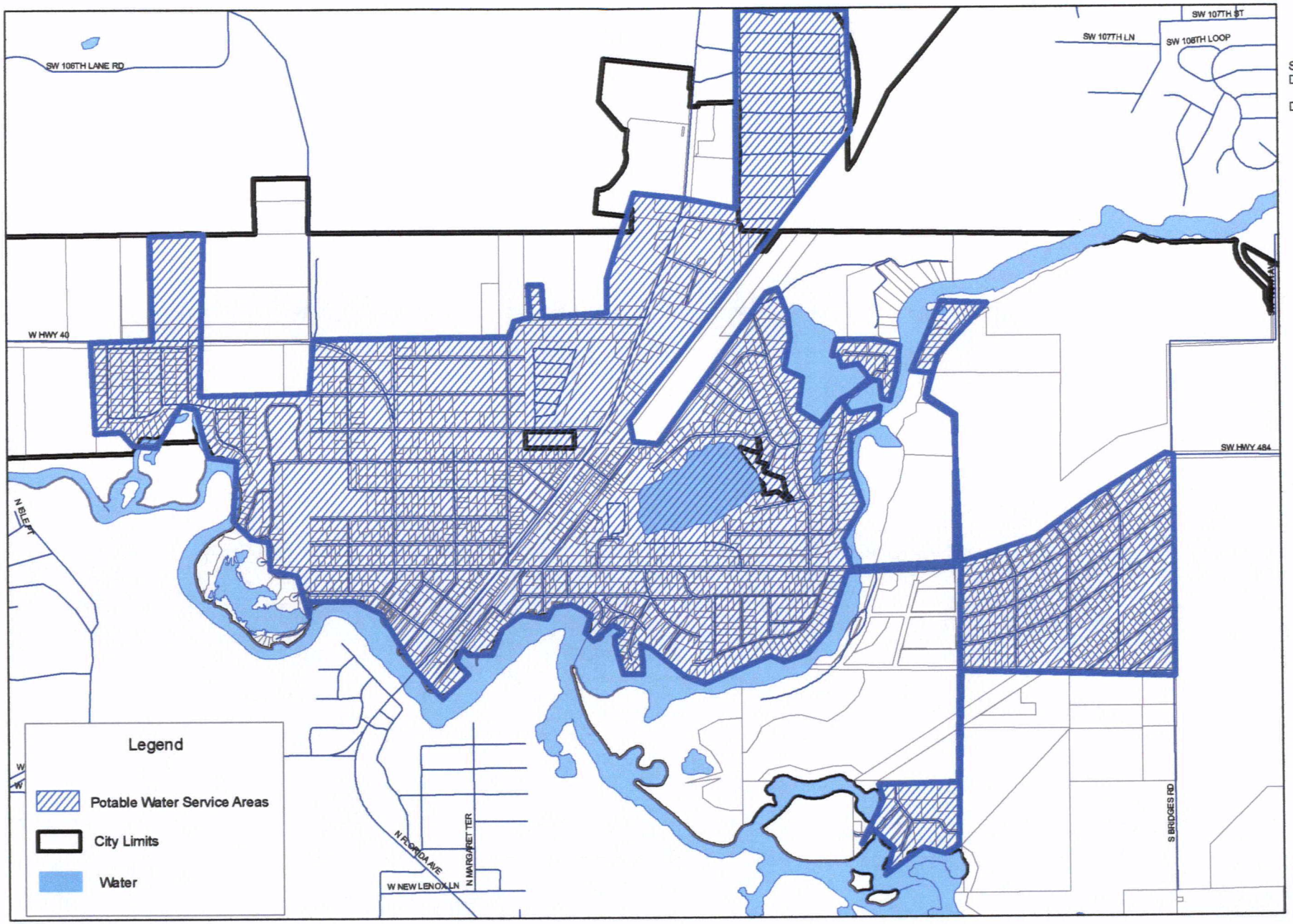
Source: USDA, UF FDGL Draft Map April 30, 2007

NORTH



City of Dunnellon Draft Wetlands Map

NORTH

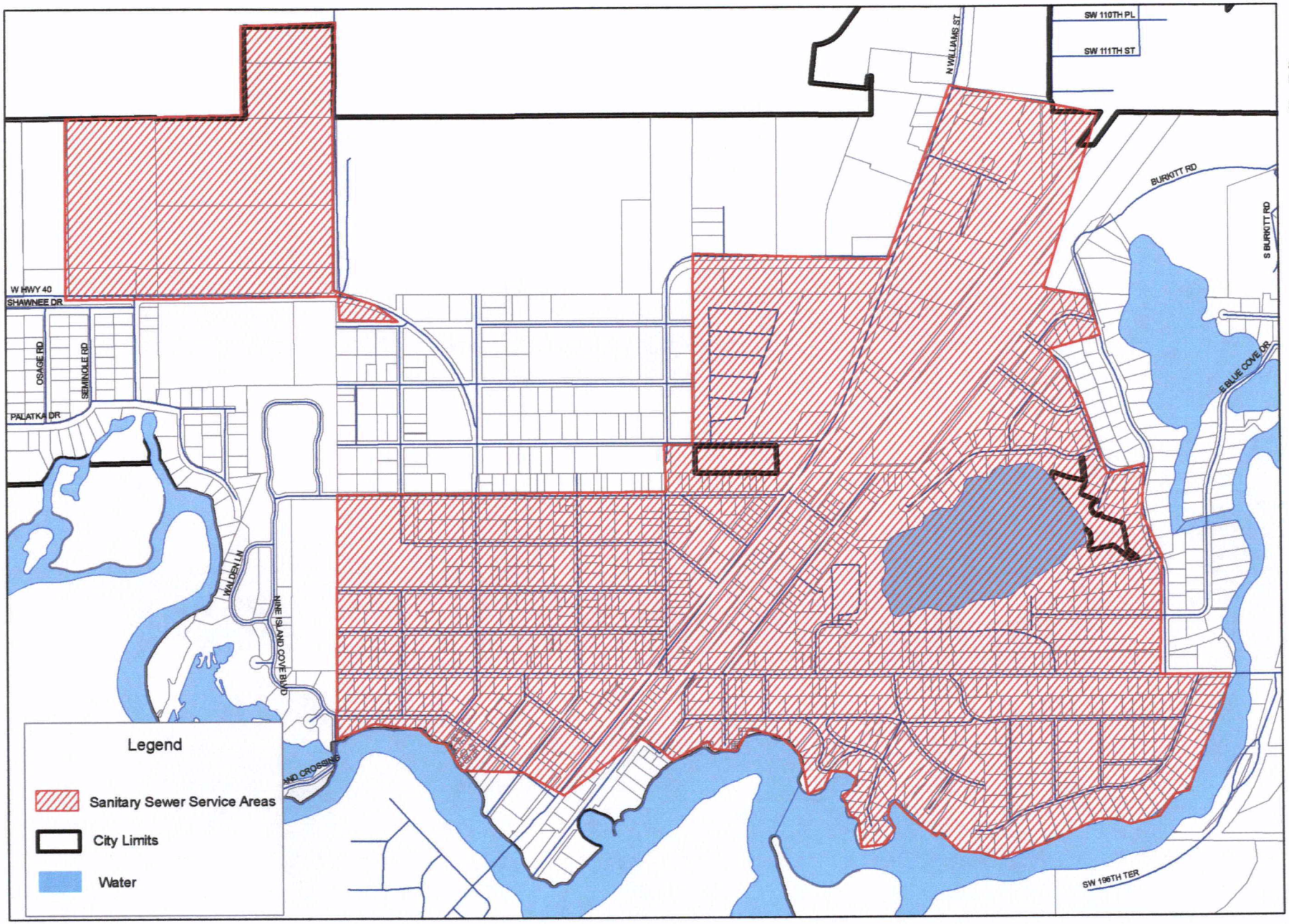


Source: City of Dunnellon

Date: July 26, 2007

City of Dunnellon Draft Potable Water Service Area

NORTH

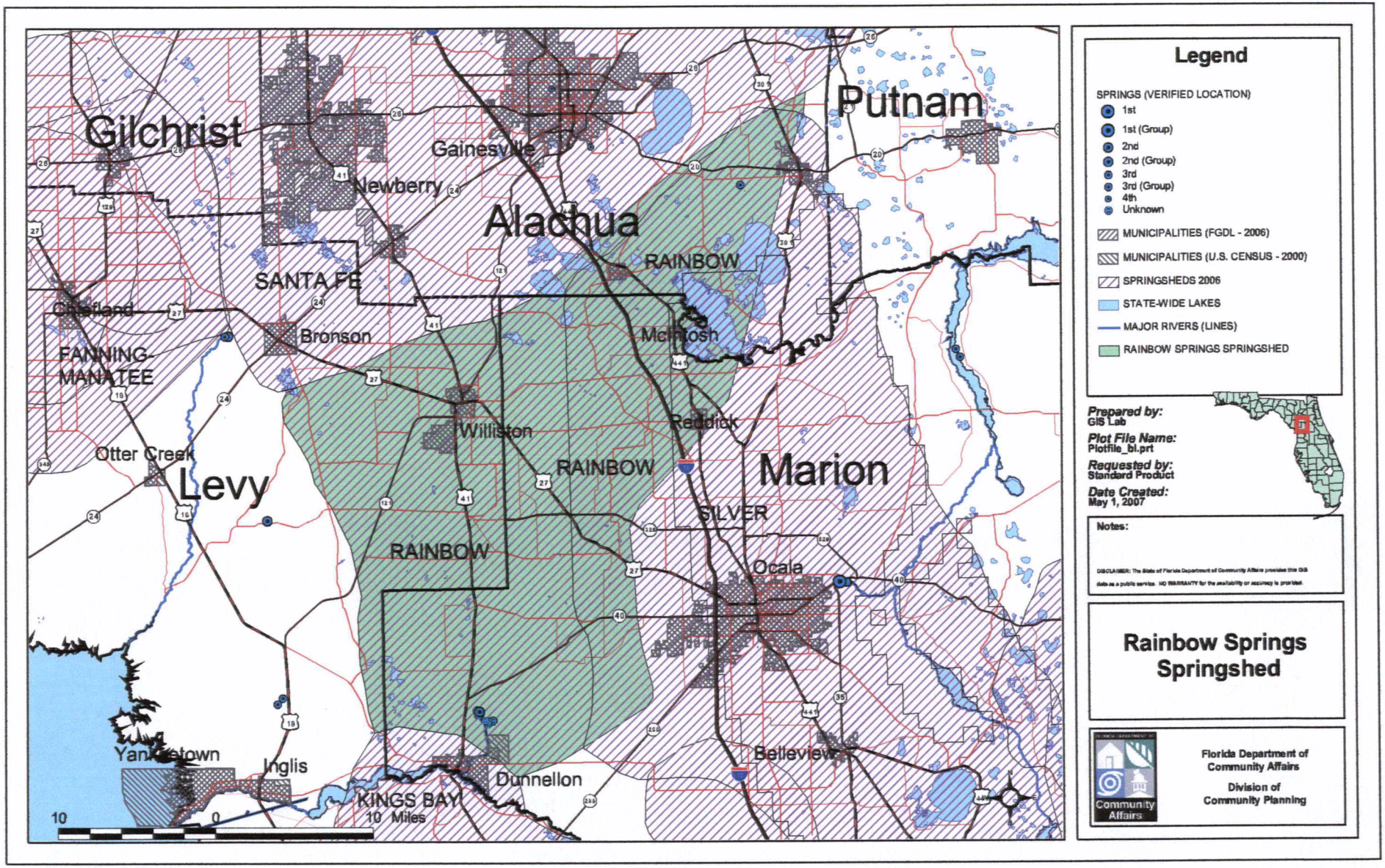


Source: City of Dunnellon

Date: June 22, 2007

City of Dunnellon Draft Sanitary Sewer Service Area

NORTH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Alachua
Putnam
Levy
Marion
Gainesville
Newberry
SANTA FE
RAINBOW
Bronson
McIntosh
Williston
Reddick
Otter Creek
FANNING-
MANATEE
SILVER
Ocala
Inglis
Dunnellon
Bellevieu
KINGS BAY
10 0 10 Miles
Legend
SPRINGS (VERIFIED LOCATION)
1st
1st (Group)
2nd
2nd (Group)
3rd
3rd (Group)
4th
Unknown
MUNICIPALITIES (FGDL - 2006)
MUNICIPALITIES (U.S. CENSUS - 2000)
SPRINGSHEDS 2006
STATE-WIDE LAKES
MAJOR RIVERS (LINES)
RAINBOW SPRINGS SPRINGSHED
Prepared by:
GIS Lab
Plot File Name:
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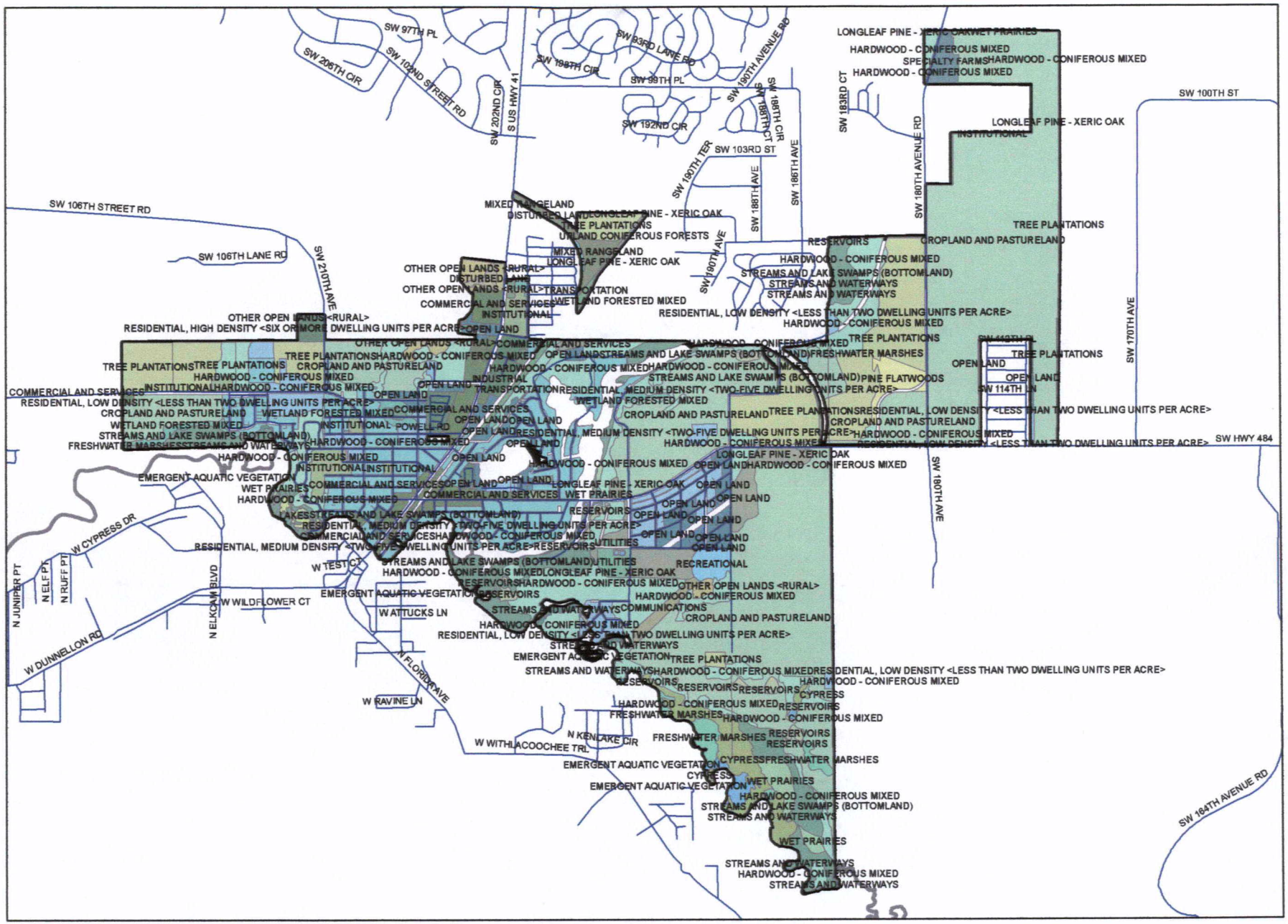
Requested by:
Standard Product
Date Created:
May 1, 2007
Notes:
DISCLAIMER: The State of Florida Department of Community Affairs provides this GIS data as a public service. NO WARRANTY for the availability or accuracy is provided.
Rainbow Springs Springshed
Florida Department of Community Affairs
Division of Community Planning
Community Affairs

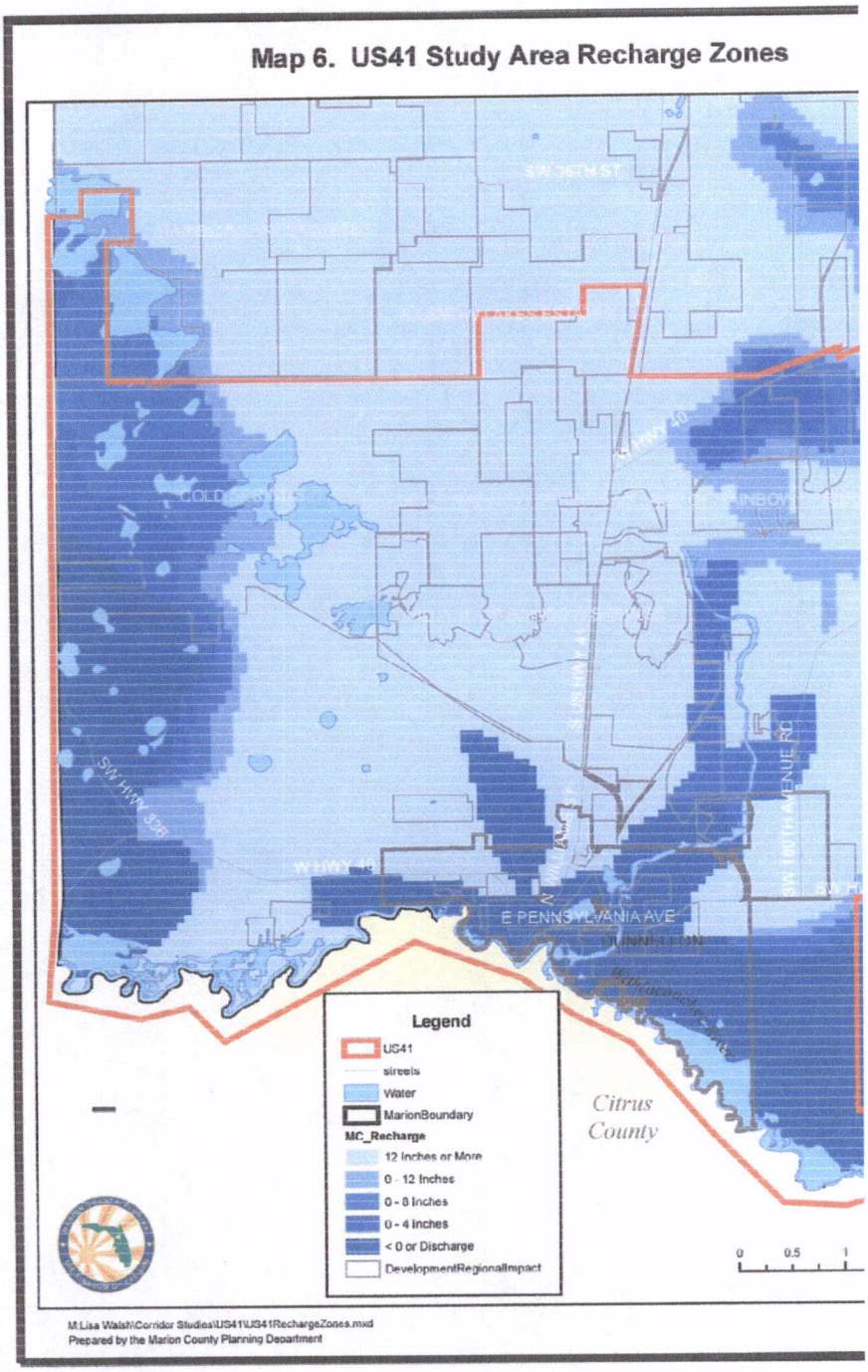


City of Dunnellon Draft Vegetative Communities Map

Source: UF
FDGL
Draft Map
July 12, 2007

NORTH

Map 6. US41 Study Area Recharge Zones



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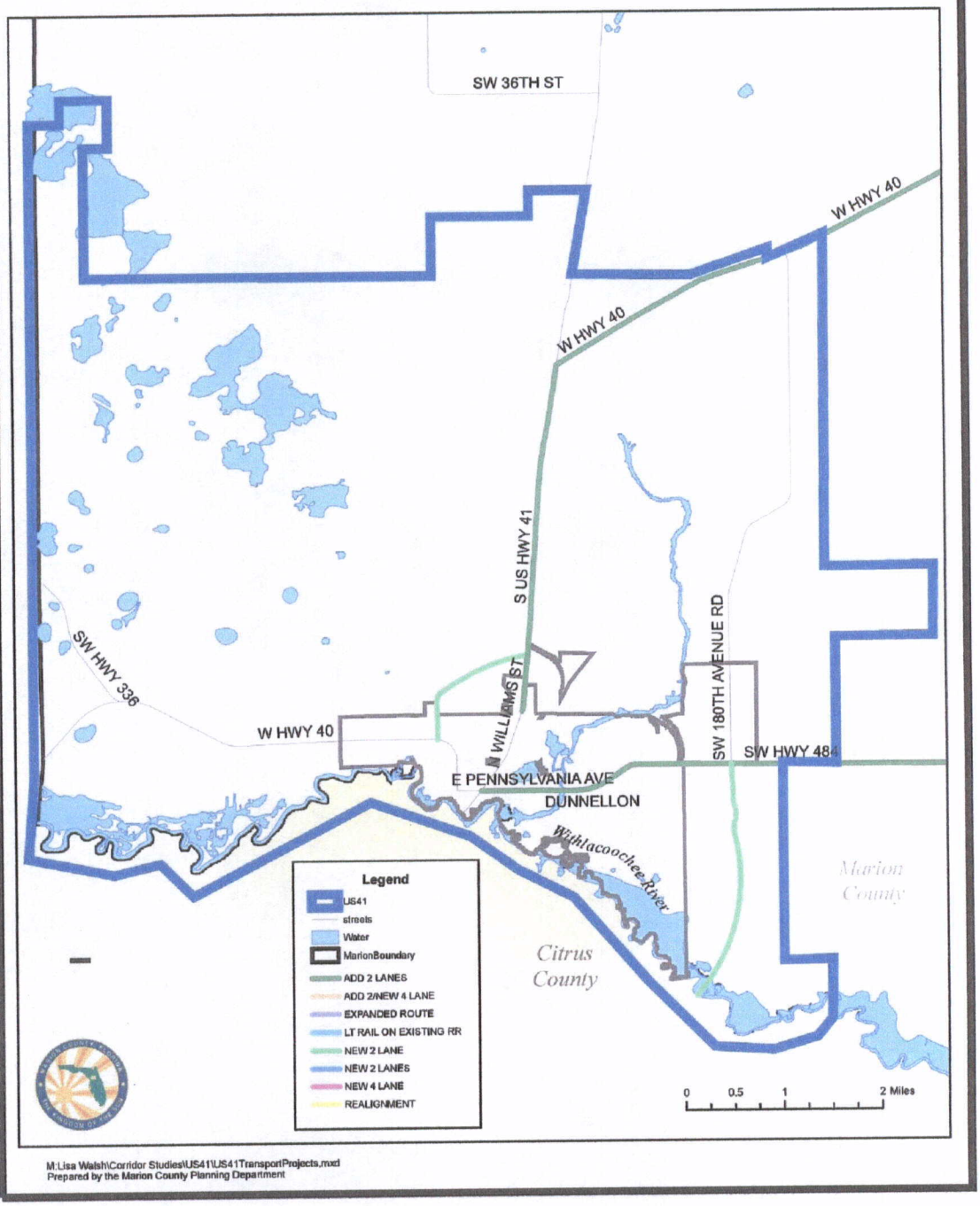
Prepared by the Marion County Planning Department

Map 13. US41 Study Area Transportation Improvement Projects



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Prepared by the Marion County Planning Department