

GROUNDWATER AQUIFER RECHARGE PROTECTION ELEMENT



Goals, Objectives and Policies

Draft: November 18, 2025

GROUNDWATER AQUIFER RECHARGE PROTECTION **ELEMENT**

GOALS, OBJECTIVES AND POLICIES

GOAL:

Protect, maintain, and ~~restore~~ preserve the function of natural groundwater Floridan Aquifer recharge areas in the city to ensure the quality and availability of potable water resources and water supply for present and future generations.

Objective 1:

Land development regulations shall include siting requirements for land use which assist in the protection of groundwater aquifer recharge and protection of existing and future groundwater supplies.

Policy 1.1:

Well/Wellhead Protection Area (WHPA) requirements for a qualified Community Water Systems (CWS), as defined ~~by Chapter 62-521.200(1), FAC~~ in Florida Statutes, shall be maintained to provide protection of existing and proposed wells from contamination for the design life of the facility. When multiple wells are existing and/or suitable planned for future service, in lieu of a WHPA for each individual well, a wellfield protection area approach may be used, provided the identified Wellfield Protection Area encompasses all existing and planned wells to be used by the qualified CWS.

Policy 1.2:

Qualified CWS WHPAs shall be consistent with Marion County's WHPA requirements and are defined and established as listed ~~below~~ in the land development regulations, and on "Map 3 - Existing Cone of Influence for Wellfields" incorporated herein as part of the Future Land Use Map Series.

ZONE	Community Water System (CWS) (FAC 62-521.200(1) (Municipal/Local Government, Community or Special District, PFSC Regulated Utility)
Primary	≤100'
Secondary	>100' to ≤500''
Tertiary	>500' to ≤1,000'

Policy 1.3:

~~New development shall meet any relevant~~ The City shall review the Southwest Florida Water Management District's regulations regarding high aquifer recharge areas ~~on an annual basis.~~ In case of changes to these regulations, amendments shall be made to the Land Development Code to reflect the new regulations set forth by the water management district.

Policy 1.4:

The City shall maintain land development regulations regarding the placement and establishment of new land uses and development for WHPAs, at a minimum consistent with Chapters 62-521, 62-532, 62-555.312, and 62-610.200, FAC, as may be amended.

Objective 2:

~~Implement water quality protection strategies for the two springsheds that exist in Dunnellon.~~
Deleted because this is redundant with Objective 7 in the Conservation Element

Policy 2.1:

~~The City will discourage the sale and use of fast release pesticides and fertilizers within city limits through educational programs.~~ Deleted due to redundancy with Policy 2.4 (and changes made to that policy) in Conservation Element

Policy 2.2:

~~The City should provide funding for programs which assist in educating residents about proper use of fertilizers and irrigation practices.~~ Deleted because there are existing regulations in the land development regulations about fertilizer use. Policies 2.4 and 7.2 in the Conservation Element covers much of this also.

Policy 2.3:

~~The City will incorporate the principles of the Florida Yards and Neighborhoods Program into~~

~~local landscaping ordinances. Deleted because redundant with Policy 7.2 in the Conservation Element.~~

Objective 3 2:

Restrict land use activities that have the potential to pollute public water supply facilities and/or the Floridan Aquifer.

Policy 3.1:

~~Control point sources of groundwater pollution by implementing land development regulations to restrict any land use that will diminish groundwater quality and quantity. The following land uses shall be regulated to reduce potential impacts:~~

- ~~A. — Vehicle sales, repair, rental, storage, or maintenance;~~
- ~~B. — Hazardous waste facilities;~~
- ~~C. — Buildings larger than 80,000 sq. ft.;~~
- ~~D. — Drive up facilities;~~
- ~~E. — RV Parks.~~

~~These are stricken because there are no specific land development regulations related to these uses that relate to groundwater pollution, except for hazardous waste facilities (Appendix A., Article XIII, Sec. 13.13 in the Code)~~

Policy 3.2

~~The City shall continue to regulate land uses within wellhead protection areas as delineated in the land development regulations.~~

Objective 4:

~~Maintain reasonable and appropriate potable water usage (125 gal/person/day) consistent with the current Conservation Element amendments of the Comprehensive Plan. This is deleted because the potable water LOS standard is in the Public Facilities Element (Policy 5.1.2) and not the Conservation Element.~~

Policy 4.1:

~~The City will promote water conservation through the enforcement of the adopted Florida Building Code which requires such items as low volume commodes, water flow restrictions for showers and spigots, and similar devices in all new construction and renovations, and will comply with the appropriate water management district water use restrictions. Redundant with Public Facilities Element Policy 5.2.1~~

Policy 4.2:

~~Use of the lowest quality water available for appropriate uses, through water storage systems~~

~~(i.e. rain barrels) and gray (reclaimed) water supply facilities.~~ **Redundant with Public Facilities Element Policy 5.2.2**

Policy 4.3:

~~The City shall require compliance with the Southwest Florida Water Management District regarding irrigation practices and other water restrictions measures.~~ **Redundant with Public Facilities Element Policy 5.2.3**

Policy 4.4:

~~Participate in water conservation and protection program of the Southwest Florida Water Management District.~~ **Propose deleting this policy from here and moving it under Objective 5.2 in the Public Facilities Element** Mandy: OK

Policy 4.5:

~~Require the use of native vegetation in landscaping, which reduces irrigations needs.~~
Deleted because redundant with Conservation Element Policy 7.2 B.

Policy 4.6:

~~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.~~

Move this policy under Objective 5.2 in the Public Facilities Element

Policy 4.7:

~~Maintain a water conservation program which includes: progressive rate structures; leak detection and remediation programs; and educational programs.~~

Deleted because the City no longer own the potable water system and thus does not set the rate structure.

Policy 4.8:

~~Coordinate with the Southwest Florida Water Management District in development of organized procedures to be followed during emergency water supply interruptions.~~

Move this policy under Objective 5.2 in the Public Facilities Element Mandy: OK

Policy 4.9:

Enforce state laws requiring low volume plumbing fixtures for new construction through building permit procedures.

Does the City do this during building permit review? If so, propose moving this policy under Objective 5.2 in the Public Facilities Element. Mandy: I do not know if this is examined during the permitting process. **Wil, please investigate this.**

Policy 4.10:

~~Participate in water conservation and protection programs of the SWFWMD, and seek assistance in the development of a water shortage plan, which establishes preparations for emergency water supply interruptions. Develop mechanisms to ensure appropriate procedures are followed during district declared and local emergency water supply interruptions, as required by Chapter 373.609, Florida Statutes by establishing chain-of-command communication between the Southwest Florida Water Management District, the City Manager, public utilities director, plant operators, newspapers, law enforcement and local citizens. Information on water shortage and conservation programs shall be disseminated through the monthly billing statement.~~

~~Move this policy under Objective 5.2 in the Public Facilities Element and strike most of it because the water emergency provisions would be the responsibility of FGUA. Mandy: OK~~

Objective 5 4:

Limit the use of impervious surfaces to increase land availability for aquifer recharge.

Policy 45.1:

~~Design of parking lots, sidewalks, buildings, and other impervious surfaces shall minimize connections between impervious surfaces through the following techniques:~~

- ~~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.~~

~~Not all techniques may be required to accomplish the requirement to minimize connections.~~

~~Cannot locate anything in the land development regulations that requires this currently. We can leave in this policy and then add it to the land development regulations. Or, we re-word this policy to state, “Design of new developments shall minimize impervious surface areas to the maximum extent possible.” Mandy: Re-word.~~

Policy 5.2 Policy 4.2:

~~Porous pavement materials, such as pervious concrete, pervious asphalt, or other pervious or porous materials shall be used, to the greatest extent feasible, to minimize the amount of impervious surface within all development.~~

Policy 5.3 Policy 4.3:

~~The City shall encourage implement innovative site design techniques, which protect the aquifer and maintain aquifer recharge capabilities, such as eluster development, pervious~~

pavement, green development, water and energy efficient development, and additional open space above the minimum requirements in the land development regulations.

Objective 6 5:

Provide for the management of hazardous waste in order to protect environmental quality, potable water supplies, and the health, safety, and welfare of Dunnellon's population. This shall be achieved by implementing monitoring and other regulatory programs and through policies for siting of new land uses involving hazardous waste.

Policy 6.1 Policy 5.1:

The City shall cooperate with any state, federal, or local programs concerning hazardous waste.

Policy 6.2 Policy 5.2:

Prior to any activity that stores, uses or produces hazardous waste, the responsible party shall: follow the requirements in the land development regulations.

- ~~A. — Develop an emergency response system addressing accidents involving hazardous waste.~~
- ~~B. — Ensure that location of the site will not degrade quality of groundwater or surface water or other natural resources.~~
- ~~C. — 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.~~
- ~~D. — Coordinate with State, Regional and County officials to demonstrate that compliance with the above requirements will satisfy all regulations and policies.~~

Policy 6.3 Policy 5.3:

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

Does the City do this? Mandy: No

Policy 6.4 Policy 5.4:

Underground storage tanks shall be regulated by the City's land development regulations and applicable State and Marion County regulations. **Modified because of regulations currently in the land development regulations.**

- ~~A. — All new underground storage tanks within the City shall be required to provide a double lining, consistent with DEP rules. All land use requests for installation of underground storage tanks shall not be issued development orders until approved by the Marion County Underground Storage Tank Program to ensure consistency with DEP rules.~~
- ~~B. — All existing underground storage tanks within the City shall be inspected annually in~~

~~accordance with the Marion County Underground Storage Tank Program. Existing hazardous substance storage tank systems shall be required to meet performance standards of DEP Rules.~~

- ~~C. 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 DEP Rules. to the Marion County Underground Storage Tank Program officials for prior approval.~~
- ~~D. 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.~~
- ~~E. Above ground storage tanks systems shall meet the standards of DEP Rules.~~

Policy 6.5 Policy 5.5:

~~Owners of existing underground storage tanks within 1000-foot radius of any public potable water well 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.~~ Does the City enforce this? Since the City no longer owns or operates the wells, is this still applicable? Mandy: I do not know if we have any underground storage tanks within 1,000 feet of the wells. Seems to me this would fall on FGUA to determine and monitor.

Policy 6.6 Policy 5.6:

The City shall verify that adequate potable water supplies are available, consistent with adopted level of service standards, prior to issuing development orders.

Policy 6.7 Policy 5.7:

~~Coordinate with SWFWMD in the protection of aquifer recharge areas after such information on prime recharge areas is made available. As soon as such information becomes available, the City shall amend the comprehensive plan to protect prime recharge areas. As an interim measure, the following impervious surface ratios shall apply to new development and redevelopment: all new subdivisions and nonresidential development shall provide a minimum of 35 percent pervious (porous) open space or green area, except within the historic district.~~