

## Goal, Objectives and Policies

### Public Facilities Element/Natural Groundwater Aquifer Recharge Sub-Element (NGWAR)

#### **GOALS, OBJECTIVES AND POLICIES**

[Revised text, page 1]

#### ~~NATURAL GROUNDWATER AQUIFER RECHARGE SUB-ELEMENT~~

#### **GOAL:**

[Rephrased to improve format as a “goal”, revised text, page 1]

~~THE COUNTY SHALL TO IDENTIFY AND PROTECT NATURAL GROUNDWATER AQUIFER RECHARGE AREAS FROM ACTIVITIES THAT COULD DEGRADE AND/OR CONTAMINATE THE QUALITY OF GROUNDWATER.~~

#### **OBJECTIVE 1 (MAPPING AND DELINEATION OF RECHARGE AREAS):**

[Rephrased to improve format as an “objective”, revised text, page 1]

~~The County shall continue to r~~ Review every ~~two~~ three years, and revise as necessary, existing map delineations of County potable water wellfields that are most sensitive to contamination from nearby land development and other surface activities. The ~~biennial~~ three-year review and any subsequent map revisions will be based on geologic, hydrogeologic, hydrologic, and updated anthropogenic contaminant data aggregated since the previous revision.

#### **Policy 1.1:**

[Revised text, page 1]

The County shall revise and update its 3-dimensional computer models of ~~ground-water~~ groundwater flow around public water supply wellfields, as additional data (e.g., withdrawal rates, numbers and locations of wells within wellfields, and hydrogeologic information) become available.

#### **Policy 1.2:**

[Revised text, page 1]

~~The County shall identify those County potable water wellfields, or portions of wellfields, including locations in the greater Immokalee area, which are susceptible to contamination, caused by adjacent or nearby land uses, drainage patterns, geomorphic conditions, soil properties, and/or hydrogeologic factors, including the presence or absence of confining units. This information shall be revised and updated as necessary.~~

#### **Policy 1.3:**

[Revised text, page 1]

The County shall maintain and update data on existing land uses and land use activities that possess the greatest potential for ~~ground-water~~ groundwater contamination.

\*\*\*    \*\*\*    \*\*\*    \*\*\*    \*\*\*    text break    \*\*\*    \*\*\*    \*\*\*    \*\*\*    \*\*\*

#### **Policy 1.5:**

[Revised text, page 1]

This Sub-Element shall incorporate by reference annual recharge amounts for the Surficial and Lower Tamiami aquifers and deeper aquifers such as the Sandstone and Hawthorne Aquifers, as described in the South Florida Water Management District’s ~~official publications dated April, 2000 (and scheduled to be published in 2006)~~ Lower West Coast Water Supply Plan, as amended.

**OBJECTIVE 2 (PROTECTION OF GROUNDWATER QUALITY):**

[Rephrased to improve format as an “objective”, revised text, page 1]

~~Ground water quality shall meet all~~ Protect groundwater from pollutant discharges that may cause exceedance of applicable Federal and State water quality standards.

**Policy 2.0.1:**

The County shall protect natural aquifer recharge areas to ensure the highest water quality practical toward meeting applicable Federal and State water quality standards for groundwater.

\*\*\*    \*\*\*    \*\*\*    \*\*\*    \*\*\*    text break    \*\*\*    \*\*\*    \*\*\*    \*\*\*    \*\*\*

**Policy 2.2:**

[Revised text, page 2]

Non-agricultural developments requiring an Environmental Resources Permit from the South Florida Water Management District (SFWMD) shall preserve groundwater recharge characteristics as required by the SFWMD and as set forth in the SFWMD’s ~~Basis for Review, dated January 2004~~ Environmental Resource Permit Information Manual, Volume IV, 2009. ~~Ground water~~ Groundwater recharge shall also be protected through the application of the retention/detention requirements and allowable off-site discharge rates for non-agricultural developments specified in Policies 6.2 and 6.3 in the ~~Drainage~~ Stormwater Management Sub-Element.

**Policy 2.3:**

[Revised text, page 2]

The County standards for protecting the quality of ~~ground water~~ groundwater recharge within the wellhead protection areas identified in the Future Land Use Element (FLUE) shall be those provided in Policy 3.1.1 of the Conservation and Coastal Management Element.

**Policy 2.4:**

[Revised text, page 2]

Collier County shall evaluate the necessity for adopting more stringent ~~ground water~~ groundwater recharge standards for High or Prime Recharge areas within 2 years of the SFWMD Governing Board’s adoption of such areas.

**OBJECTIVE 3 (GROUNDWATER QUALITY MONITORING):**

[Rephrased to improve format as an “objective”, revised text, page 2]

~~The County shall continue to e~~ Collect and evaluate ~~ground water~~ groundwater quality data, identifying ambient water quality values and trends, comparing analyzed concentrations to Florida Ground Water Guidance Concentrations, and providing information to water resources planning and management entities, and to the general public.

**Policy 3.1:**

[Revised text, page 3]

The County shall continue its existing water quality monitoring program to provide base-line data, evaluate long-term trends, identify water quality problems, and evaluate the effectiveness of the County’s ~~ground water~~ groundwater protection program.

\*\*\*    \*\*\*    \*\*\*    \*\*\*    \*\*\*    text break    \*\*\*    \*\*\*    \*\*\*    \*\*\*    \*\*\*

**Policy 3.3:** [Revised text, page 2]  
~~The County will annually assess its groundwater quality monitoring data to determine whether monitoring activities and County Ordinances require expansion, modification or reduction. Groundwater monitoring efforts for both quality and availability will include the greater Golden Gate Estates area.~~

**Policy 3.4:** [Revised text, page 3]  
 The County shall continually gather and evaluate appropriate data for the purpose of refining and improving the groundwater quality monitoring database used in the County's 3-dimensional ~~ground water~~ groundwater model.

**Policy 3.5:** [Revised text, page 3]  
 Collier County shall continue to conduct water resource planning with appropriate County, City of Naples, and SFWMD staff to provide for ~~ground water~~ groundwater resource development, utilization, and conservation. ~~Water resource planning efforts will include the greater Golden Gate Estates area.~~

**OBJECTIVE: 4 (PUBLIC EDUCATION WITH REGARD TO GROUNDWATER PROTECTION**

*ISSUES):* [Rephrased to improve format as an “objective”, revised text, page 3]  
~~The County shall continue current activities of providing~~ Provide the public with educational materials concerning ~~ground water~~ groundwater protection issues in Collier County. These ~~may materials~~ include, but ~~shall not be~~ are not limited to, the preparation of annual technical publications of ~~ground water~~ groundwater quality data, an informational website for groundwater quality issues, general information publications, establishment of a speakers’ bureau, K-12 classroom presentations, and in-service teacher workshops and seminars.

**Policy 4.1:** [Revised text, page 3]  
 The County shall continue to advise the public on the appropriate disposal methods for hazardous wastes, for the purpose of reducing or avoiding the potential for groundwater contamination. In performing this task, the County may utilize the public educational measures listed within Objective 4 of this Sub-Element, or any other measures which may be appropriate.

\*\*\*    \*\*\*    \*\*\*    \*\*\*    \*\*\*    text break    \*\*\*    \*\*\*    \*\*\*    \*\*\*    \*\*\*

**OBJECTIVE 5 (PROTECTION OF CRITICAL RECHARGE AREAS AND GROUNDWATER RESOURCES):**

[Rephrased to improve format as an “objective”, revised text, page 3]  
~~The County shall implement~~ Continue implementing plans to preserve ~~critical ground water~~ groundwater recharge areas and ~~ground water~~ groundwater resources, ~~and will~~ along with reviewing, evaluating, and revising (if warranted) those plans and actions, based on the best available geologic, hydrologic, hydrogeologic, and anthropogenic contaminant data.

**Policy 5.1:** [Revised text, page 3]  
 The County shall develop, and continually update, technical criteria for determining those recharge areas, which are critical to the County's long-term ~~ground water~~ groundwater needs.

**Policy 5.2:** [Revised text, page 3]  
 The County shall continue to identify ~~critical~~ recharge areas and appropriate protective mechanisms.

**Policy 5.3:** [Revised text, page 3]  
 The County shall continue to identify costs, funding mechanisms and private property rights issues associated with the protection of ~~critical~~ recharge areas.

\*\*\* \*\* text break \*\*\* \*\*

**Policy 5.5:** [Revised text, page 4]  
 Collier County shall continue to operate and maintain a hazardous waste collection facility. The facility ~~shall operate five (5) days per week and~~ will accept household and small business hazardous wastes. Additionally, the County shall continue to hold special events, such as its hazardous waste collection day, at least twice per year targeting residential households but also and allowing small businesses to participate to insure consumer demand is met.

\*\*\* \*\* page break \*\*\* \*\*

**MAP CHANGES:**

1. Map 1, Groundwater Recharge to the Surficial Aquifer
  - This map is to be updated.
2. Map 2, Groundwater Recharge to the Lower Tamiami Aquifer
  - This map is to be updated.

EAR-NGWAR Sub-E – EAC Transmittal Hearing DRAFT 10-18-11  
 G:\CDES Planning Services\Comprehensive\2011 EAR-BASED GMP AMENDMENTS\EAC transmittal - EAR-based GMP amendments\Elements\NGWAR - CS\EAR-based Amendments\_EAC Transmittal\_NGWAR\_2.docx  
 CS