COLLIER COUNTY
GROWTH MANAGEMENT PLAN

PUBLIC FACILITIES ELEMENT
Natural Groundwater Aquifer Recharge Sub-Element

Prepared for
COLLIER COUNTY BOARD OF COUNTY COMMISSIONERS
October, 1997

AMENDMENTS TO COLLIER COUNTY GROWTH MANAGEMENT PLAN
PUBLIC FACILITIES ELEMENT
NATURAL GROUNDWATER AQUIFER RECHARGE SUB-ELEMENT

Symbol	Date Amended	Ordinance No.
**	May 9, 2000	Ordinance No. 2000-25
***	May 9, 2000	Ordinance No. 2000-26
(I)	May 9, 2000	Ordinance No. 2000-27

** Ordinance No. 2000-25, rescinded and repealed in its entirety Collier County Ordinance No. 99-63, which had the effect of rescinding certain EAR-based objectives and policies at issue in Administration Commission Case No. ACC-99-02 (DOAH Case No. 98-0324GM).

*** Ordinance No. 2000-26, amended Ordinance No. 89-05, as amended, the Collier County Growth Management Plan, having the effect of rescinding certain EAR-based objectives and policies at issue in Administration Commission Case No. ACC-99-02 (DOAH Case No. 98-0324GM), more specifically portions of the Intergovernmental Coordination Element (Ord. No. 98-56), Natural Groundwater Aquifer Recharge Element (Ord. No. 97-59) and Drainage (Ord. No. 97-61) sub-elements of the Public Facilities Element, Housing Element (Ord. No. 97-63), Golden Gate Area Master Plan (Ord. No. 97-64), Conservation and Coastal Management Element (Ord. No. 97-66), and the Future Land Use Element and Future Land Use Map (Ord. No. 97-67); and re-adopts Policy 2.2.3 of the Golden Gate Area Master Plan.

* Indicates adopted portions
Note: the support document will be updated as current information becomes available.

GOALS, OBJECTIVES AND POLICIES

GOAL 1:
THE COUNTY SHALL IDENTIFY AND PROTECT NATURAL GROUNDWATER AQUIFER RECHARGE AREAS FROM ACTIVITIES THAT COULD DEGRADE AND/OR CONTAMINATE THE QUALITY OF GROUNDWATER.

OBJECTIVE 1.1:
On a biannual basis, beginning in October 1998, review and revise (as necessary) existing map delineations of recharge areas that are most sensitive to contamination from land development and other surface activities. The review and any map revisions will be based on geologic, hydrogeologic, hydrologic, and updated anathropogenic contaminant data aggregated during the previous biennium.

Policy 1.1.1:
Continue to revise 3-dimensional computer models of ground water 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 1.1.2:
Continue to identify areas and revise previous identifications of areas that are especially vulnerable to contamination because of land use, drainage, geomorphic, soil, hydrogeological, and other conditions, such as the presence/absence of confining units.

Policy 1.1.3:
Identify existing land uses and land use activities that possess the greatest potential for ground water contamination. See Policy 1.5.4.

Policy 1.1.4:
Update criteria for determining and mapping sensitive recharge areas as additional anthropogenic and hydrogeologic information becomes available.

(I) Policy 1.1.5:
Annual recharge amounts for the Surficial and Lower Tamiami aquifers are those described in the SFWMD's Publication WRE #327, Mapping Recharge (Infiltration/leakage) throughout the South Florida Water Management District, August,1995 (Map 1 and Map 2).

(I) OBJECTIVE 1.2:
Ground water quality shall meet all applicable Federal and State water quality standards.

(I) Policy 1.2.1
Discharges to sinkholes or other karst related features with a direct hydrologic connection to the Surficial or Intermediate Aquifer Systems shall be prohibited.

(I) Policy 1.2.2
Non-agricultural developments requiring an ERP permit from the SFWMD shall preserve groundwater recharge characteristics as required by the SFWMD and set forth in the

SFWMD's Basis for Review, as it existed on October 31, 1999. Ground water 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 1.6.2 and 1.6.3 in the Drainage Sub-Element.

(I) Policy 1.2.3
Standards for protecting the quality of ground water recharge to the public water supply wellfields identified in the FLUE are the same as those provided in Policy 3.1.1 of the Conservation and Coastal Management Element.

(I) Policy 1.2.4
The Collier County Rural and Agricultural Area Assessment shall consider the ground water recharge characteristics in the County's rural area including the information contained in SFWMD publication WRE #327.

(I) Policy 1.2.5
Collier County shall evaluate the necessity for adopting more stringent ground water recharge standards for High or Prime Recharge areas within 2 years of the SFWMD Governing Board's adoption of such areas.

OBJECTIVE 1.3:
Continue to collect and evaluate ground water quality data, identifying ambient water quality values and trends, comparing analyze concentrations to Florida Ground Water Guidance Concentrations, and providing information to water resources planning and management entities, and to the general public.

Policy 1.3.1:
Continue the 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 protection program.

Policy 1.3.2:
Coordinate data gathering activities with State and Federal agencies to minimize duplication of efforts and enhance the quality of information gathered.

Policy 1.3.3:
Assess the data annually to determine whether monitoring activities and County Ordinances require expansion, modification or reduction.

Policy 1.3.4:
Gather and use appropriate data to refine and improve the data base used in the County's 3-dimensional ground water model.

Policy 1.3.5:
By 1 October 1997, establish a water resources planning group composed of appropriate County, City of Naples, and SFWMD staff to provide guidance for ground water resource development, utilization, and conservation.

OBJECTIVE: 1.4:
Continue current activities of providing the public with educational materials concerning ground water protection issues in Collier County via annual technical publications of ground water quality data collected, general information publications, speakers' bureau presentations, K-12 classroom presentations, and in-service teacher workshops and seminars.

Policy 1.4.1:
Advise the public on the appropriate disposal methods for hazardous wastes.

Policy 1.4.2:
Provide information that can be understood by the general public on Collier County's groundwater system, its vulnerability to contamination and measures needed to protect it from contamination.

OBJECTIVE: 1.5:
The County will implement existing plans to preserve critical ground water recharge areas and ground water resources, and on a biennial schedule, beginning in October 1988, review, evaluate, and revise (if warranted) those plans and actions, based on geologic, hydrologic, hydrogeologic, and anthropogenic contaminant data aggregated during the previous biennium.

Policy 1.5.1:
Develop technical criteria for determining which areas are critical to the County's long-term ground water needs.

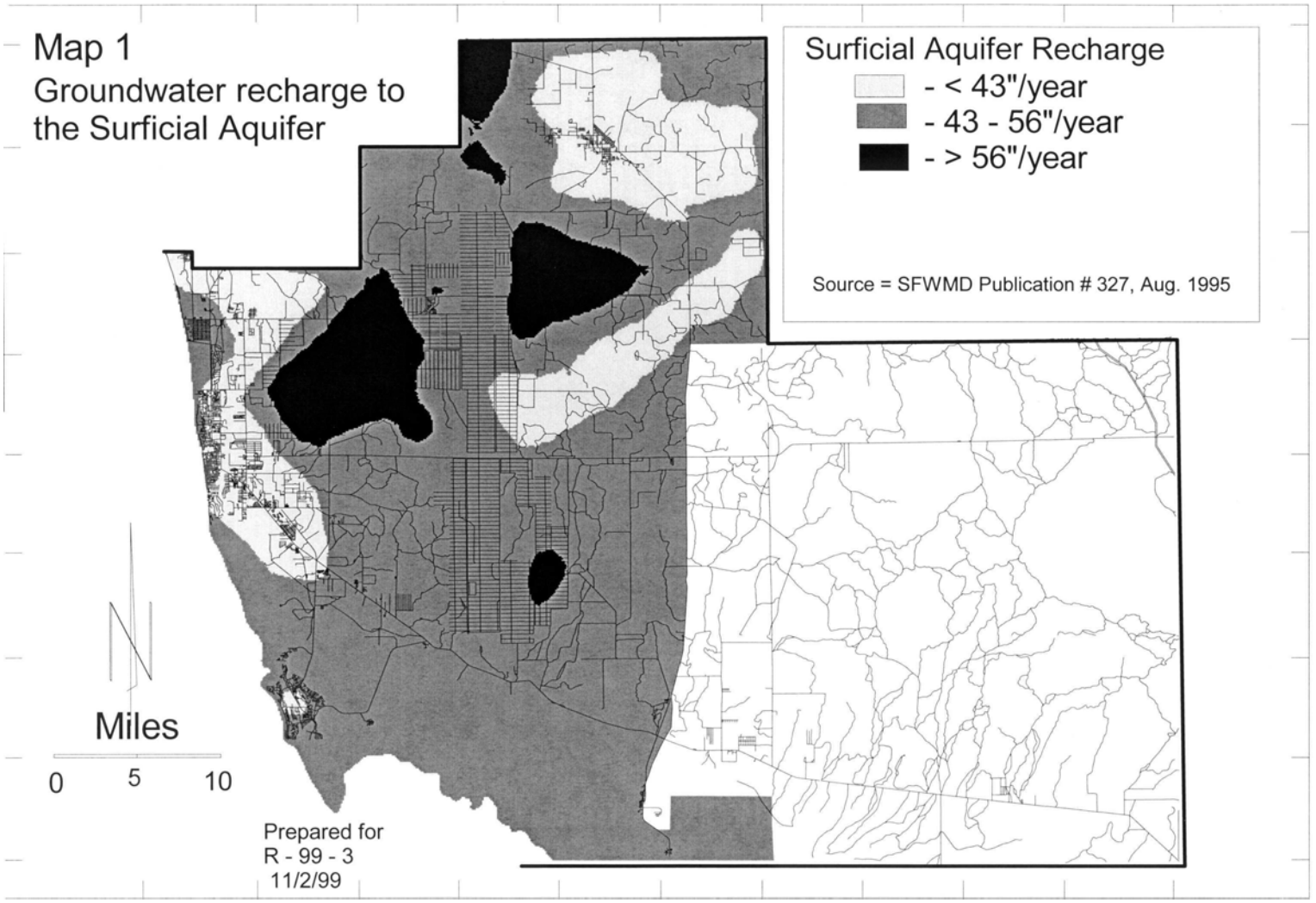
Policy 1.5.2:
Identify the critical areas and appropriate protective mechanisms.

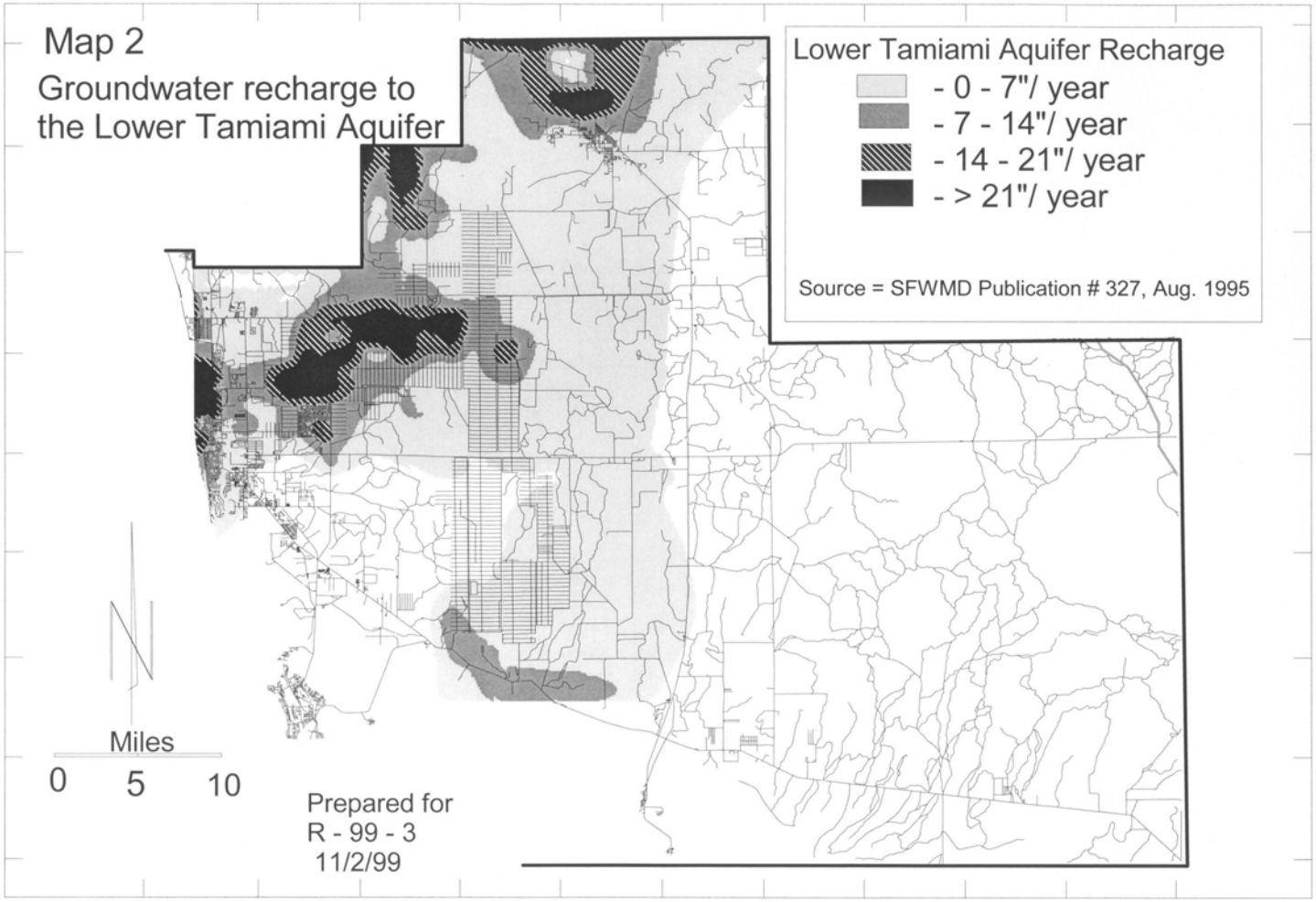
Policy 1.5.3:
Identify costs, funding mechanisms and private property rights.

Policy 1.5.4:
By 1 October 1997, implement a local petroleum storage tank cleanup program, especially in identified wellfield protection zones, operating within available State funding.

Policy 1.5.5:
By 1 October, 1997, increase household and Conditionally Exempt Small Quantity Generator (CESQG) hazardous waste collection.

(l) GOAL 2, and OBJECTIVE 2.1, and Policies 2.1.1 – 2.1.4 [deleted]


Map 1
Groundwater recharge to the Surficial Aquifer
Surficial Aquifer Recharge
- < 43"/year
- 43 - 56"/year
- > 56"/year
Source = SFWMD Publication # 327, Aug. 1995
N
Miles
0
5
10
Prepared for
R - 99 - 3
11/2/99


Map 2
Groundwater recharge to
the Lower Tamiami Aquifer
Lower Tamiami Aquifer Recharge
- 0 - 7"/ year
- 7 - 14"/ year
- 14 - 21"/ year
- > 21"/ year
Source = SFWMD Publication # 327, Aug. 1995
N
Miles
0 5 10
Prepared for
R - 99 - 3
11/2/99