

Hoppes, Linda

From: Ottolini, Roland [ROttolini@leegov.com]
Sent: Monday, October 08, 2012 10:04 AM
To: Hoppes, Linda
Cc: Keyes, Pamela; Werst, Lee; Harclerode, Kurt; Edelstein, Rand; Mamott, Thomas; Bickford, Karen; Karuna-Muni, Anura; Pellicer, Tony; 'Jed Schneck'; 'John Fumero'; Ottolini, Roland
Subject: RE: LWCWSP Update comments
Attachments: Lower West Coast Water Supply Plan Draft comments.doc; Hoppes, Linda.pdf

Linda,

This attachment should have been included in our submittal on September 28, 2012. The letter is also attached for reference. Thank you for your consideration.

*Roland Ottolini, PE
Director
Lee County Division of Natural Resources
(239) 533-8127*

From: Ottolini, Roland
Sent: Friday, September 28, 2012 3:32 PM
To: lhoppes@sfwmd.gov
Cc: Keyes, Pamela; Werst, Lee; Harclerode, Kurt; Edelstein, Rand; Mamott, Thomas; Bickford, Karen; Karuna-Muni, Anura; Pellicer, Tony; Jed Schneck; John Fumero
Subject: LWCWSP Update comments

Linda,

As requested, attached are Lee County's comments. Thank you for giving us the opportunity to review.

*Roland Ottolini, PE
Director
Lee County Division of Natural Resources
(239) 533-8127*

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Draft 2012 Lower West Coast Water Supply Plan, Chapters 3 and 4

Chapter 3 Comments:

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SUMMARY OF ISSUES IDENTIFIED FOR 2030:

Why not create a common cumulative impact model - one for the SAS, one for the IAS and one for the FAS. Agree upon a common model; make the model accessible to all applicants so they can update it when they apply for a consumptive use permit.

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Fresh Groundwater Availability Is Limited

Surficial Aquifer System- second paragraph

There is mention of public utilities reducing their allocation and changing sources from the SAS. However, there is no mention of agriculture or other water use categories. What are agriculture and the other water use categories doing to reduce their dependency?

Surficial Aquifer System- third paragraph

Who is reviewing the data supplied and at what frequency?

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RESOURCE PROTECTION

Minimum Flow and Level (MFL) criteria define the point at which additional withdrawals will result in significant harm to the water resources or ecology of an area (Sections 373.042 and 373.0421, F.S.).

The District should create an actual critical water level contour map for each county and for each of the protected aquifers. Once created, the District can work with local governments determine when to stop all construction and consumptive use permitting to the impacted aquifer.

Water shortage management plans and water shortage orders are used to restrict water use when sufficient water is temporarily unavailable to meet user needs or when conditions require temporary reduction in use to prevent serious harm to water resources (Sections 373.175 and 373.246, F.S.).

The County recommends the District create a supplementing Water Conservation team or officers to assist local governments that participate in enforcing the water shortage orders.

Summary of statutory resource protection tools

The right to use water is authorized by permit. Consumptive use permitting protects the water resources from harm by ensuring water use is reasonable-beneficial, does not interfere with existing legal users, and is consistent with the public interest. The conditions of permit issuance are more specifically enumerated in Chapters 40E-2 and 40E-20, Florida Administrative Code (F.A.C.). In order to provide reasonable assurances that the conditions of permit issuance in Rules 40E-2.301(1) and 40E-20.301(1), F.A.C., are met, applicants must meet the criteria in the *Basis of Review for Water Use Permit Applications within the South Florida Water Management District (SFWMD 2010b)*. The technical criteria used to evaluate the purpose, quantity and source of proposed water to be used concern the following:

Saltwater intrusion

We need to have updated saline water intrusion contour maps created and a decision to stop well construction in those areas when 900 MG/l is reached.

Consumptive Use Permitting- Pollution

What kind of pollution and where?

Lower West Coast Aquifers MFL

A violation of the criteria occurs when water levels drop below the top of the uppermost geologic strata comprising the aquifer at any point in time.

Why is the violation measured from the “top of the uppermost geologic strata comprising the Aquifer?” Why not consider taking action 20 feet above? Most pumps are now installed to the top of aquifer.

Who at the District is making the decision to take action to stop?

Surficial and Intermediate Aquifer Systems Chloride Levels

Lateral encroachment of seawater into the Lower Tamiami aquifer has occurred to varying extents in the region. Saline groundwater beneath the Gulf of Mexico could move through the permeable rock comprising the Lower Tamiami aquifer to come into equilibrium with modern natural and anthropogenic stresses, such as withdrawals, sea level and drought. Some evidence indirectly suggests the occurrence of lateral encroachment in the lower Tamiami aquifer near Bonita Springs (Shoemaker and Edwards 2003).

In an effort to slow down or stop the plume of saline water, Lee County Division of Natural Resources Division has an in-place ordinance which does not allow permitting the construction of wells to the Lower Tamiami Aquifer for any use other than Domestic self supply.

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Floridan Aquifer System

Monitoring Network:

Relying on applicants to submit required data has not always proven to be a constant or reliable on numerous occasions. The District has reduced the number of wells that are monitored by the USGS, they tend to be impartial and very constant with their data collection.

Water Levels:

With the District directing the large public water utilities and golf courses to utilize the FAS as an alternative water supply, there is a terrible lack of water level and water quality monitoring wells that are constructed to the Lower Hawthorn for monitoring and observation purposes.

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Water Conservation:

Again, the County suggests that there would be a tremendous benefit to having a District supported/ supplemented Water Conservation team or officers that are strictly enforcing the in-place year round landscape conservation measures rule or local ordinances whichever are more restrictive.

(Chapter 4) Comments:

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Rain Sensors and Smart Irrigation Technology

In 2009, Section 373.62, F.S., was amended, requiring all automatic landscape irrigation systems to be fitted with properly installed automatic shutoff devices, regardless of the systems' installation date. These devices automatically override scheduled irrigation events when sufficient moisture is present in the microclimate. Automatic shut-off devices include rain sensors and more efficient smart irrigation technologies, such as soil moisture sensors, evapotranspiration sensors, or weather-based shutoff devices. Smart irrigation technology consists of irrigation system components that regulate the frequency or duration of irrigation events in response to site-specific conditions.

Who enforces this requirement for existing structures?

Outdoor Use/Recreational Irrigation

A permitting condition that requires the applicant to provide both the District and local governments with landscape irrigation systems designed to meet the in place water conservation rules or ordinances and their specific days and times with no variances allowed, would greatly enhance water conservation.

Overall Comment for both chapters:

Nowhere in either chapter was the discussion of non-permitted uses and enforcement.

In addition with our updated knowledge of the local area there are numerous wells which were permitted with an inaccurate casing depth that are continuously allowing inter aquifer migration of saline water.