



**DEPARTMENT OF PUBLIC UTILITIES**

401 CLEMATIS STREET, 4<sup>TH</sup> FLOOR  
P.O. BOX 3366  
WEST PALM BEACH, FLORIDA 33402-3366  
TEL: 561-494-1060  
FAX: 561-494-1115

March 7, 2022

**VIA EMAIL**

[nkraft@sfwmd.gov](mailto:nkraft@sfwmd.gov)

Natalie Kraft  
South Florida Water Management District

**RE: Loxahatchee River Watershed Restoration Project Protection Rulemaking  
Comments on rule Development Workshop #2**

Dear Ms. Kraft:

Please accept this letter as the City of West Palm Beach's (City) comments on the South Florida Water Management District's (District) most recent proposed changes to the Applicant's Handbook for Water Use Permits (AH) Sections 1.1, 1.5.2, 3.2.1, and 3.7 (Proposed Rule) in support of the Comprehensive Everglades Restoration Plan (CERP) Loxahatchee River Watershed Restoration Project (LRWRP).

We would like to thank you for addressing some of the comments that the City previously submitted regarding the Proposed Rule. As you know, the City is affected by the Proposed Rule. The City owns and manages Grassy Waters Preserve (Grassy Waters), a 23-square mile aquatic ecosystem comprising the southern half of the historical Loxahatchee Slough. Grassy Waters is a named North Palm Beach County/Loxahatchee River Watershed Waterbody and is a component of the LRWRP. The LRWRP Recommended Plan uses water supplied from Grassy Waters through the G-161 Structure to restore flow to the Northwest Fork of the Loxahatchee River and provides for hydrologic restoration of the Grassy Waters Preserve Triangle. The City relies on Grassy Waters as a primary surface water supply source for its citizens. Finally, the City operates an aquifer storage and recovery (ASR) system and is considering the development of a Floridan aquifer system (FAS) source to supplement its current surface water system as a mechanism to help mitigate public health and safety issues due to potential algal blooms.

The City fully supports rulemaking that allows the LRWRP to move forward without depriving water suppliers of existing water supply sources and future water supply opportunities. Thus, it is important that the Proposed Rule is consistent with the purpose of the LRWRP, is based on sound

science, and does not create unintended consequences for water users located within and outside the North Palm Beach County/Loxahatchee River Watershed Waterbodies.

**I. Change in Definition of North Palm Beach County/Loxahatchee River Watershed Waterbodies and Base Condition of the Lower East Coast Regional Water Availability Rule**

The Proposed Rule contains revisions to the existing definition of “North Palm Beach County/Loxahatchee River Watershed Waterbodies” in AH Section 1.1 as well as AH Figure 3-2, which is referenced in the definition. It appears that the intent of this revision is to add new areas to the definition and subject those areas to the applicable Restricted Allocation Area requirements of AH Section 3.2.1.E.

The City is concerned that the Proposed Rule potentially creates unintended consequences and ambiguities regarding the interpretation and application of the Lower East Coast Regional Water Availability Rule.

The Lower East Coast Regional Water Availability Rule, codified in AH Section 3.2.1.E., was established in 2007. It prohibits new or modified permits or permit renewals within the Northern Palm Beach County Service Area and Lower East Coast Service Areas 1, 2 and 3, which will cause a net increase in the volume or cause a change in the timing of surface water and groundwater withdrawn from the Lower East Coast Everglades Watershed Waterbodies or the Northern Palm Beach County/Loxahatchee River Watershed Waterbodies over that resulting from the “base condition water use.” The “base condition water use” is generally defined based on water withdrawn by the applicant during the twelve months preceding April 1, 2006, with other specific use type criteria similarly established from a base condition utilizing an April 1, 2006 target.

From the time the Lower East Coast Regional Water Availability Rule was adopted in 2007 to the present, these requirements, and the April 1, 2006 base condition, did not apply to water withdrawn from newly identified Hungryland Slough Natural Area, the Cypress Creek Natural Area and the C-18W Reservoir and other areas newly incorporated in Figure 3-2, and certain integrated conveyance canals such as the M-O Canal, the M-1 Canal and the M-2 Canal identified in Figure 3-2. Since these water bodies and conveyance canals were not included in the definition of “North Palm Beach County/Loxahatchee River Watershed Waterbodies” in AH Section 1.1 or in AH Figure 3-2, water uses permitted in the Northern Palm Beach County Service Area and the Lower East Coast Service Areas after 2007, did not have to demonstrate that the base condition water use for these features would not be exceeded. As currently written, the Proposed Rule would create a hardship for these uses, because upon renewal, they would be unable to demonstrate compliance with the Lower East Coast Regional Water Availability Rule because these uses did not exist during the twelve months prior to April 1, 2006.

One way to correct this issue would be to modify the Proposed Rule to make it clear that the “base condition water use” for these newly added areas is in line with the time periods established under

the existing rule by use class, but adjusted for the adoption of the Proposed Rule and not those periods relative to April 1, 2006.

## **II. Proposed Rule Would Prevent Implementation of LRWRP**

The Proposed Rule would appear to prohibit water uses that are contemplated as part of the LRWRP itself. As explained in the Technical Document Supporting Rulemaking to Protect Water Made Available by the Loxahatchee River Watershed Restoration Project (Technical Document), the LRWRP would utilize water withdrawn from the M-O Canal to fill the new C-18W Reservoir and water withdrawn (75 cfs) from a new M-1 Canal pump station to supplement the M Canal to offset water withdrawn (50 cfs) from Grassy Waters Preserve through the G-161 structure to enhance fresh water flows in the Loxahatchee River.

As written, the Proposed Rule would impose the water use limitations of the Lower East Coast Regional Water Availability provisions on the JW Corbett Wildlife Management Area, the M-O Canal, the Hungryland Slough Natural Area (where the C-18W Canal is located), Grassy Waters, and the Loxahatchee Slough Natural Area (where the G-161 and C-18 Canal are located), as well as the specific canals identified in Figure 3-2, such as the M-1 and M-2 Canals. Since the proposed withdrawals from the M-O and M-1 Canals did not exist during the twelve months prior to April 1, 2006, these components of the LRWRP could not be permitted.

In order to address this issue, the Proposed Rule could be revised to make it clear that these water uses associated with the LRWRP are not subject to the “base condition water use” requirements of the Lower East Coast Regional Water Availability Rule.

## **III. Proposed Rule Will Adversely Impact All New Uses of Upper Floridan Aquifer Within the Northern Palm Beach County Service Area and the Lower East Coast Service Area**

As currently written, the portion of the Proposed Rule pertaining to the FAS underlying the C-18W Reservoir would appear to prohibit all new water uses of the FAS within the Northern Palm Beach County Service Area and the Lower East Coast Service Area. New AH Section 3.2.1.G. requires demonstration that a new FAS use will not “adversely impact” the FAS buffer zone reflected in Figure 3-4. An applicant may demonstrate compliance with this provision by either showing that the cone of depression for the requested allocation, individually and cumulatively, will not intersect the FAS buffer zone in Figure 3-4, or by showing that it meets the requirements of AH Section 3.7 (including new Section 3.7.E, which is addressed in separate comments below). Both criteria are impossible to meet as currently written.

First, with regard to the individual and cumulative “cone of depression” buffer zone requirement, since a numerical model would be used to prove compliance based on cumulative impacts of all water users, with this criterion and the drawdown contour determined by a numerical model, the cone of depression associated with a proposed withdrawal on a cumulative basis will likely always

intersect the buffer zone, even for water users at significant distance from the buffer zone. There has not been any analysis performed to determine a reasonable threshold for the required cumulative impact analysis, nor to determine which uses in the region are impacted by the new cumulative impact requirement. Thus, a standard based on the mere intersection of a cone of depression with the “buffer zone” does not establish an “adverse impact” to the water necessary for restoration of the Loxahatchee River Watershed.

Second, these limitations were not determined based on site-specific data that would be necessary for protection in the FAS as acknowledged in the Technical Document. The protection analysis is only based on a 90-day period of withdrawals, similar to a basic consumptive use permit impact analysis, which does not account for the unique operations of ASR and the complexities of the area. For example, the analysis does not consider the ASR bubble's long-term effects on existing or proposed consumptive uses of water.

Third, the new proposed requirement of demonstrating compliance with AH Section 3.7 is similarly flawed. Section 3.7 concerns interference with existing legal uses of water. New Section 3.7.2.E. would require that the applicant demonstrate its proposed use will not cause “1) the transmittance of ASR waters away from the area of influence by changing or accelerating the flow velocity or flow direction; or 2) a change in the concentration of total dissolved solids (TDS).” As written, the draft rule language states that any “change” in flow, velocity, or direction or in the concentration of TDS for an existing ASR system amounts to interference with an existing legal use that would make a proposed use not permissible. Taken literally, this provision would limit any proposed use of water, since any withdrawal causes some theoretical “change” in the aquifer with regard to flow or water quality, particularly when numerical groundwater models are used to evaluate proposed water uses as described above.

In conclusion, the criteria used to demonstrate no adverse impact with the FAS buffer zone are arbitrary and capricious as the criteria are not supported by logic or facts and bear no rational relationship to the harm standard. Moreover, Section 3.2.1.G would appear to reserve the water in the entire FAS in the Northern Palm Beach County and Lower East Coast Service Areas for the LRWRP by making it impossible for new FAS uses to demonstrate non-interference with the FAS buffer zone.

Given the above concerns, the Proposed Rule should be revised to create permitting criteria that describe actual adverse impacts to the ASR water associated with the C-18W Reservoir. The criteria should recognize the ASR system only assumes 70 percent recovery of the water injected in the ASR system, as described in the Technical Document. Adverse impact should be defined as new FAS uses that negatively impact the proposed recovery rate. As to what that would be depends on site specific studies, which at present do not exist in the Technical Document.

#### **IV. The New AH Section 3.7.2.E ASR Interference Requirement**

As explained above, the Proposed Rule would create a new Section 3.7.2.E, which prohibits interference with any ASR water use and not just the ASR water use associated with the C-18W Reservoir. Thus, a FAS water use anywhere within the District would have to demonstrate compliance with the new requirement upon initial permit issuance, permit modification, and permit renewal. There are a number of significant problems with this new provision, which are detailed below.

First, if a new District-wide ASR interference standard is something the District wishes to adopt, it should be done through a separate rulemaking so that the District can receive public input from all impacted stakeholder and not just those persons located within the North Palm Beach County/Loxahatchee River Watershed.

Second, a requirement based on unspecified “change” is contrary to the statutory requirement in Section 373.223, Florida Statutes, which requires “interference” with an existing legal use. As written, there is no connection between a “change” in flow velocity or direction, or a “change” in concentration of TDS with interference with a given ASR water use. For example, even a proposed use that caused a reduction in the concentration of TDS would amount to interference as the language is currently written. This is an absurd result that was obviously not considered by the authors of this rule provision.

As currently written, under new Section 3.7.2.E., applicants would be left to guess whether the proposed rule language truly applies to any “change,” no matter how infinitesimal, or whether there is some unwritten threshold of “change” which may in fact be permissible. What the District and water users require is an objective standard that can clearly be applied in all situations with predictable results.

Also, this onerous and ambiguous new ASR interference standard would make the permitting of new ASR systems extremely difficult, if not impossible. This is particularly significant since the District is heavily relying on ASR wells to implement CERP. An applicant for a new ASR system would be unable to provide reasonable assurance that the operation of the proposed ASR system will not cause interference with an existing legal use of the FAS. Interference with an existing legal use of water is defined in Section 3.7.2.A as inability to withdraw water consistent with provisions of a permitted or exempt use. Once the ASR well is permitted, the existing legal users of the FAS would be unable to withdraw water upon renewal because of the limitations that would be imposed by Section 3.7.2.E.

Given the above concerns, the LRWRP rule should be revised so that the ASR interference requirement is limited only to ASR associated with the LRWRP, and those requirements should be rewritten based on site-specific data that correlates to actual “interference” with the project, as opposed to the current “change” standard that significantly expands what is contemplated in Section 373.223, Florida Statutes.

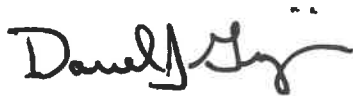
**V. The New AH Section 3.7.3 ASR Interference Mitigation Requirement**

The proposed revision to AH Section 3.7.3 contains language ensuring that interference with an ASR system cannot be mitigated through replacement of the impacted equipment. This is inappropriate since a user would only be able to mitigate its impact by relocating wells or changing withdrawal sources.

**VI. Conclusion**

Thank you for your consideration of these comments. The City fully supports the LRWRP, however, the Proposed Rule should be tailored to protect the project without imposing requirements that may create unintended consequences for the project itself and other water users both locally and throughout the District. We look forward to continuing to work with District staff regarding these and other important issues.

Sincerely,  
CITY OF WEST PALM BEACH

A handwritten signature in black ink, appearing to read "Darrel J. Graziani". The signature is fluid and cursive, with a prominent "D" and "G".

Darrel J. Graziani, P.E., R.S.  
Assistant Director of Public Utilities