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VIA EMAIL to asutherl@sjrwmd.com

December 23, 2015

Dr. Andrew B. Sutherland St. Johns River Water Management District P.O. Box 1429 Palatka, FL 32178-1429

SUBJECT: Upper Ocklawaha River Basin (UORB) HSPF Model Review Comments

Dear Dr. Sutherland,

In response to the St. Johns River Water Management District's (District's) request for public input, WSP | Parsons Brinckerhoff, on behalf of Orange County Utilities, has reviewed the UORB HSPF models and documentation developed by the District. Specifically, we have reviewed the UORB HSPF Calibration Model, UORB HSPF Baseline Model and related HSPF Report (*Lake Apopka and the Upper Ocklawaha River Minimum Flows and Levels Hydrologic Assessment Method Report*) released by the District on October 30, 2015.

Based on our review of the HSPF models, we have the following comments to be addressed:

- As described in the HSPF Report, the UORB HSPF Baseline Model was developed to "reflect the baseline hydrologic conditions, such as most recent land use data, permitted consumptive uses, restoration efforts, etc." However, with regard to consumptive uses, the UORB HSPF Baseline Model includes surface water withdrawals at both historical and permitted amounts depending on the user. The UORB HSPF Baseline Model should be modified to include all permitted consumptive users in a consistent manner.
- 2. The HSPF Report only documents the Calibration and Baseline Models. As such, we will reserve comments on the use of the HSPF model to estimate impacts (Impact Model), or on modifications that might be appropriate in such a model, until additional model simulations are made available.

We appreciate the opportunity to review the UORB HSPF models and report. We look forward to the opportunity to provide additional comments as the District continues it work to adopt UORB MFLs.

Sincerely, WSP | Parsons Brinckerhoff

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A. Dale Helms, Jr., PE Sr. Supervising Engineer

Cc: Teresa Remudo-Fries, PE, Orange County Utilities Anthony Cotter, Esq., Orange County Attorney's Office Charles "Tad" Parker, PE, Orange County Utilities Roberto Denis, PE, Liquid Solutions Group