APPENDIX M

STAKEHOLDER COMMENTS WITH SJRWMD RESPONSES

Table of Contents

M1: Workshop and Stakeholder Comments with Responses

Table M1: Central Springs/East Coast Regional Water Supply Plan Workshop and Stakeholder Comments and Responses

CSEC RWSP Comment Number	Commenter and Associated Entity	Date Received	Manner of Submittal	Comment as Received[1]	CSEC RWSP Response
1	Bill Young, Wright-Pierce	7/26/2021	Public Workshop - DeLand	Asked if conservation rate structures are required for utilities or are they optional.	A rate structure designed to promote water conservation by encouraging the efficient use of water is required. The specific structure is evaluated on a case-by-case basis during the consumptive use permit review process.
2	Marcel Barbier, ABC Organics, LLC	7/28/2021	Public Workshop - Vero Beach	The CSEC RWSP shows agricultural water use declining, but commenter expects it to increase. Commenter recommends that agricultural demand be reviewed with USDA and University of Florida and water recycling should be encouraged.	Projected agricultural acreage and water demand in the CSEC RWSP were taken directly from estimates provided by the Florida Department of Agriculture and Consumer Services (FDACS) in the Florida Statewide Agricultural Irrigation Demand IV report. SJRWMD utilized FDACS agricultural acreage and demand projections pursuant to ss. 373.709(2)(a)1b, *Florida Statutes* . Added statement to plan indicating that SJRWMD is a partner of One Water Florida. See www.floridadep.gov/southwest/sw-permitting/campaign/one-water-florida for additional information.
3	Richard Baker, Pelican Island Audubon	7/28/2021	Public Workshop - Vero Beach	Spoke about Audubon project to eliminate turf, promote native plants, 60 percent of water is used to irrigate lawns, four month fertilizer ban in Indian River County and that Alachua County ban is eight months of the year, and turf swap program. Could an SJRWMD grant be provided to Indian River County to conduct a turf swap program?	Although the SJRWMD Cost-share Program provides competitive funding assistance to projects that meet the district's core missions, including the conservation of water supplies, the district does not consider solely turf swap programs eligible for this funding. Such programs are considered when they include either irrigation system abandonment or irrigation system retrofit for enhanced efficiency. Turf swap programs can be effective when they also reduce irrigation water use.
4	David E. Gunter, Indian River Farms Water Control District	7/28/2021	Public Workshop - Vero Beach	Concerned with reuse water being dumped into residential retention ponds and discharged into the Indian River Lagoon during storm events. Consider its impact on water quality.	Water quality is considered when reclaimed water is utilized to fill ponds for irrigation use. When reclaimed water will be discharged to a permitted wet detention pond, an environmental resource permit (ERP) modification is required prior to the wet detention pond being used as a storage facility for the reclaimed water. During review of the requested ERP modification, the pollutant load due to the addition of the reclaimed water is analyzed, as well as the operation/withdrawal of water from the wet detention pond. If the wet detention pond is used to store the reclaimed water, then the wet detention pond is typically modified to function as a stormwater harvesting pond so as to address the additional pollutant load and the frequency of discharge from the pond.
5	Robert Ulevich, PolyMath Consulting Services	7/28/2021	Public Workshop - Vero Beach	Spoke about the relationship of the CSEC RWSP with the SFWMD's Upper East Coast WSP and the opportunity of exchanging water from SFWMD and SJRWMD. Population and public supply demand projections look flat. Interested in more frequent updates.	SJRWMD coordinated with SFWMD on the CSEC RWSP and the Upper East Coast WSP update. The CSEC RWSP does not include any projects that divert water from SFWMD to SJRWMD or vice versa. If such diversion projects are identified in the future, they will be considered for inclusion in the respective five-year CSEC RWSP update. Population and public supply projections are not flat within the CSEC planning region but rather show an estimated 30 percent increase in population and 29 percent increase in water demand from 2015 to 2040. Water supply plans are updated every five years, however, SJRWMD does publish annual water use surveys, which quantify changes in districtwide water use on a yearly basis. The water use surveys can be found at www.sjrwmd.com/documents/technical-reports/fact-sheets/.
6	Michael Walther, Clean Water Coalition of Indian River County	7/28/2021	Public Workshop - Vero Beach	Spoke about Clean Water Coalition of Indian River County and its support of plans that protect water resources and all water uses and maximize water recycling. Request that District encourage the utilization of recycled water, both agriculture and domestic, consistent with FDEP's One Florida Water Campaign.	Added text to "Reclaimed Water" section to indicate that SJRWMD is a partner of One Water Florida.
7	Robert Adair, Citrus Grower and Florida Research Center	7/28/2021	Public Workshop - Vero Beach	Indicated that the CSEC RWSP was well prepared and will be helpful for Indian River County. Spoke about the number of private agricultural wells in Indian River County that could be included in future water level and water quality analyses and added that growers would be glad to assist. Requested that additional agricultural wells be included in future water quality analyses. Not many opportunities to change to more chloride-tolerant crops that are as productive as citrus.	Thank you for your comments and your offer to assist with groundwater monitoring. The addition of monitored wells in the five-year update of the CSEC RWSP will be considered. Added clarification to plan indicating that crops with a higher chloride tolerance may also be less productive.
8	Egor Emory, Lake County Conservation Council	7/29/2021	Public Workshop - Tavares	Number of water bodies without MFLs, projects that meet shortfall, catastrophic loss of flow at Silver Springs, well beyond detrimental impacts to users including commenter's well, commenter cannot conserve enough water for all of future increases in demand. Project cost of $4 per gallon seems low.	Each year the SJRWMD Governing Board sends FDEP an MFLs Priority List and Schedule for review and approval. The Governing Board recognizes that it is neither realistic nor necessary to set MFLs on all water bodies. SJRWMD is currently developing an optimized network of MFL water bodies (existing and new) that will ensure that 1) limited SJRWMD resources are efficiently utilized and 2) the MFL monitoring network is scientifically sound, efficient, and effective at assessing regional groundwater withdrawal impacts on surface water bodies throughout the district. The CSEC RWSP identifies 229 mgd of projects, which exceeds the increase in demand from 2015 to 2040 under average climate conditions (75 mgd) and under 1-in-10 year drought conditions (155 mgd). The total quantity of 229 mgd is not the shortfall, but the total capacity of projects. Silver Springs is in prevention with regard to its MFLs (currently meeting MFLs but not projected to meet MFLs at planning horizon). The final MFLs determination report for Silver Springs is located at static.sjrwmd.com/sjrwmd/secure/technicalreports/TP/SJ2017-2.pdf. Under the Silver Springs prevention rules, water users permitted by SJRWMD that have a potential to impact Silver Springs cannot exceed their Demonstrated 2024 Demand, without offsetting their impact (see section 3.3.3 of the CUP Applicant's Handbook at www.sjrwmd.com/documents/permitting/#cup). Consumptive uses of water must not cause interference to existing legal uses of water, which includes private well owners. If an interference complaint is received by the district, the SJRWMD regulatory program will investigate and require mitigation by the responsible party if interference is confirmed. Water conservation potential was calculated for each water use category, not solely private well users. Project cost per gallon of water was not calculated within the CSEC RWSP.
9	Richard Dunkel, ETS, Inc.	7/29/2021	Public Workshop - Tavares	Inquired about O&M costs for identified projects.	O&M costs are included in the project appendices.
10	Angel Martin	8/10/2021	Email	More information is needed regarding the Central Springs Model besides the areal extent as shown on figure 16 in the plan. Some information should be provided concerning the model layering. Will model layers be similar to the other groundwater-flow models within the CSEC RWSP area? Assume that the USGS MODFLOW model code will be used and not another code, such as a hybrid model where fractures are accounted for? Also, some discussion of boundary conditions should be included. Will data and information from the three models within the area be used for the Central Springs Model? Why is a new model needed? Is it expected that the Central Springs Model will better simulate the groundwater-flow system and improve predictions to 2040? Will the periods of simulated calibration and projections be similar for the Central Springs Model as for the Northern District, East-Central Florida Transient, and Volusia Models? Some consideration should be given to developing a saltwater-intrusion model, such as SEAWAT, for simulation in areas prone to saltwater intrusion. Also, there should be some discussion on the effects of climate change on 2040 predictions.	The Central Springs Model (CSM) is currently under development and was not utilized in the development of the CSEC RWSP. Specific details regarding the final model will be included in subsequent updates of the CSEC RWSP. It is anticipated that the CSM will replace the Northern District Model version 5 and the Volusia model. Use of the CSM will eliminate certain boundary condition concerns as the domain will span from the Gulf of Mexico to the Atlantic Ocean. As indicated in the discussion on climate change, SJRWMD will be developing a water quality model to evaluate potential water quality impacts from sea-level rise. This tool will also be used to predict water quality changes resulting from increased groundwater withdrawals. SJRWMD is considering SEAWAT or something similar for this new modeling tool. The CSEC RWSP addresses many of the concerns associated with increased surface temperatures due to climate change during the planning horizon by identifying sufficient projects to meet the 1-in-10 year drought demand.
11	Angel Martin	8/10/2021	Email	Besides the predicted changes in water-level maps from 2015 to 2040 for the three available models within the CSEC RWSP area, suggest adding an accompanying table for each predicted change illustration showing the change in fluxes for the model area from 2015 to 2040. The table should show the predicted changes in spring flows, flows across model boundaries, and other flow features.	Thank you for your comments. Your recommendations will be considered in future updates to the CSEC RWSP.
12	Angel Martin	8/10/2021	Email	Appendix C should not be titled as the simulated change in the potentiometric surface within the CSEC flow model domains. What the illustrations are showing in this appendix are not changes in potentiometric surfaces but the differences in model-simulated drawdowns by model cell. No potentiometric surfaces are shown on the illustrations. Better if the counties were labeled on these illustrations along with a base map showing the position in Florida. Some discussion should be added explaining why there are areas with increasing water levels. On figure C-5, there doesn't seem to be any areas on the map with increasing water levels? There should be no areas defined in the Legend that are not present on the illustration. This also applies to figure C-3 and possible other figures.	Thank you for your comments. Maps in Appendix C were modified to include labels for pertinent counties and Florida inset maps for reference.
13	Angel Martin	8/10/2021	Email	Why are there no water-supply development project options (Appendix I) concerning further use of the Lower Floridan aquifer even if the water quality in Lower Floridan may be of lower quality than the Upper Floridan aquifer? What is the difference in the tables concerning the terms reuse and reclaimed? Do these terms mean the same? What is the difference in the Status column between Feasibility and Planning? These terms should be defined.	There are three water supply development project options listed in Appendix J (Water Supply Development Project Options) that will utilize the Lower Floridan aquifer as a source for public supply. In the project tables, reclaimed water is the source of the water while reuse is the project type. Other reclaimed water project types include recharge and alternative water supply (e.g., direct potable reuse). Planning refers to a project concept that may not be completely defined, whereas, feasibility refers to the further exploration of a project concept prior to committing to design.

CSEC RWSP Comment Number	Commenter and Associated Entity	Date Received	Manner of Submittal	Comment as Received[1]	CSEC RWSP Response
14	Angel Martin	8/10/2021	Email	Concerning the water-supply development projects, there should be follow-up and reporting on what each project is actually producing. The capacities are reported but the actual project totals should be reported on an annual basis.	RWSPs are not intended to function as annual reports. The project tables include the information required by Florida Statutes. This information will be updated in the CSEC RWSP five-year update.
15	Michael Walther, Clean Water Coalition of Indian River County	8/16/2021	Email	Page 31 of the DRAFT Plan cites: "It is important to note that reductions in water use resulting from current and historical water conservation efforts are reflected in the 2040 water demand projections … in part, because of the effects of existing water conservation." Page 58 of the DRAFT Plan cites: "However, SJRWMD anticipates that a conservation only strategy will not offset the predicted shortfall in fresh groundwater supplies." Page 59 cites: "savings can also be gained by improving agricultural irrigation efficiency". These questionable conservation assumptions warrant the District to both: 1) identify alternative sources to reliably meet future water demands; and provide District funding to support implementation of conservation measures.	Water demand projections are based, in part, on a five-year historic average per capita. Decreases in historic average per capita are often attributed to increased water conservation and reclaimed water provision. By using historic per capita, water use projections assume the same level of conservation and reclaimed water provision in the future. The CSEC RWSP identified between 27.0 and 38.2 mgd of *additional* water conservation potential at 2040. Included in the 2040 water conservation potential is 16.0 mgd of potential conservation by agricultural operations (estimated by Florida Department of Agriculture and Consumer Services in the 2017 Florida Statewide Agricultural Irrigation Demand report), which can be realized by improving agricultural irrigation efficiency. The SJRWMD Cost-share Program provides competitive funding assistance to projects that meet the district's core missions, including conservation of water supplies. Finally, the maximum total water conservation estimate (38.2 mgd) will not meet the projected 75 mgd increase in projected water demand. The CSEC RWSP identifies 191.2 mgd of water resource and water supply development projects as possible solutions to meet the projected increase in demand. The SJRWMD Cost-share Program provides competitive funding assistance to projects that meet the district's core missions, including the conservation of water supplies. Eligible conservation projects must have quantifiable water savings.
16	Michael Walther, Clean Water Coalition of Indian River County	8/16/2021	Email	Chapter 3 of the DRAFT Plan indicates a Purpose to "determine the potential for unacceptable impacts to groundwater quality, springs, and surface water bodies". However, assessment of water quality impacts is based upon the sourced water versus the ultimate fate of the water uses. For example: 1) Domestic water uses result in significant discharge of nutrient rich wastewater either via (a) inadequate wastewater treatment plants which discharge effluent to receiving waters, or (b) via septic tanks which directly affect the surficial aquifer. 2) Agricultural water uses commonly result in discharge of waters with excessive nutrients due to fertilizer use or ranch wastes. As part of the Plan, the District should assess water uses and their ultimate "impacts to groundwater quality, springs, and surface water bodies".	The CSEC RWSP meets the requirements of section 373.709, *Florida Statutes* . The Florida Department of Environmental Protection regulates wastewater treatment facilities and implements the regulations applicable to onsite sewage treatment and disposal systems (e.g., septic tanks). The Florida Department of Agriculture and Consumer Services' Best Management Practices program provides agricultural operations with practical measures that can be implemented to improve the quality of water flowing offsite. Participation in the program provides a presumptive of compliance with water quality standards in areas covered by a Basin Management Action Plan (BMAP). Although the regulation of these subject areas falls outside of the jurisdiction of water management districts, water quality is an SJRWMD core mission, and projects that improve water quality (e.g., wastewater treatment plant upgrades, septic-to-sewer projects, and implementation of agricultural BMPs) are eligible for funding assistance through the SJRWMD Cost-share Program.
17	Michael Walther, Clean Water Coalition of Indian River County	8/16/2021	Email	Page 39 of the DRAFT Plan cites: "Increases in groundwater withdrawals and sea level rise may accelerate degrading water quality trends over time. SJRWMD is developing additional tools that will predict water quality changes based on various withdrawal and sea level scenarios". These tools should include a hydrologic and water quality model that should be immediately funded and expanded to include all water sources, their uses, and resulting "impacts to groundwater quality, springs, and surface water bodies". An assessment of existing conditions should be developed ASAP based on available water quality and consumptive use data and used to establish initial conditions of the model, which should be calibrated and verified periodically based on future monitoring data obtained via expansion of the District's Work Plan for "hydrologic and water quality data collection, monitoring, and analysis".	As described in the CSEC RWSP, SJRWMD will be developing an appropriate tool that will be utilized to predict future water quality changes resulting from withdrawal increases and sea-level rise. SJRWMD must work within budgetary constraints and obtain Governing Board approval for project funding, which will ultimately guide the project schedule. Based on the water quality analysis results provided in the CSEC RWSP, SJRWMD does not think it is necessary to expedite tool development.
18	Michael Walther, Clean Water Coalition of Indian River County	8/16/2021	Email	These plans are not working to preserve the natural systems through conservation and growth management. As a result, water quality will suffer as natural systems are disrupted. Subsection 373.223(4), F.S., authorizes the Districts and FDEP to reserve water from use by permit applicants for the protection of fish and wildlife or public health or safety; the District should exercise this authority.	The four core missions of the water management districts include water supply, water quality, flood protection, and natural systems. The districts do not have the authority to manage growth within the state. The districts do have the authority to reserve water from use by permit applicants for the protection of fish and wildlife or the public health and safety. At this point in time, SJRWMD is not considering the establishment of a water use reservation in the CSEC RWSP area. The Florida Department of Environmental Protection conducts statewide, basin-scale assessments of surface water quality, determines if water quality standards are met, develops Total Maximum Daily Loads (TMDLs) for impaired water bodies, and facilitates development and implementation of Basin Action Management Plans (BMAPs) to meet the restoration goals of the TMDLs. Through FDEP's TMDL and BMAP programs, water quality problems are identified and restorative efforts are undertaken. Water conservation is an important component of a water supply plan. Water supply plans estimate the potential additional water conservation that can occur during the planning horizon. The regulatory program is responsible for ensuring the implementation of sufficient water conservation measures by permit applicants. Since water conservation is so important, SJRWMD will cost-share up to 50 percent on eligible water conservation projects as part of the SJRWMD competitive cost-share program.
19	Michael Walther, Clean Water Coalition of Indian River County	8/16/2021	Email	There appears to be a glaring disconnect between goals of District's consumptive use permitting program and the District's Bureau of Water Supply Planning efforts. As an example: Since 2017, the District has developed a Black Creek Water Resource Development Project – now estimated to cost "between $63.8 and $82.9 million." – intended "to increase recharge to the Upper Floridan aquifer" in Clay County where lakes at Keystone Heights have dried-up due to excessive water withdrawals; the need for this project reflects an absence of planning in the District's issuance of CUPs. A similar plan is under discussion within the Suwannee River Water Management District to pipe water from the Suwannee River to replenish the Ichetucknee Springs watershed; again, this project reflects an absence of planning in the District's issuance of CUPs.	SJRWMD utilizes the best available tools at the time to evaluate potential impacts to water resources. As new tools are developed — including groundwater flow models, water quality models, minimum flows and minimum water levels (MFLs), assessment techniques, etc. — revised assessment results can shift, indicating greater or lesser water resource constraints. These shifts are inherent as the understanding of natural systems improve and will be considered in consumptive use permit review and reflected in water supply plan five-year updates and in new or revised MFL prevention/recovery strategies.
20	Michael Walther, Clean Water Coalition of Indian River County	8/16/2021	Email	The proposed Plan for our region of the State indicates (a) a water shortfall in groundwater resources is expected by 2040 to meet the anticipated population growth and water demand within the region, and (b) potential measures to meet the demand. The issuance or denial of proposed Consumptive Use Permits (CUPs) should be consistent with the Plan to avoid shortfalls and to preserve/restore water quality of all regional waters – consistent with Subsection 373.223(4), F.S.	The recommended issuance or denial of a proposed consumptive use permit is guided by the permit issuance criteria in subsection 373.223(1), *Florida Statutes* (F.S.). Water supply planning is conducted at a regional scale and, therefore, projected impacts in a water supply plan may or may not exist at the permit level. Although 373.223(4), F.S., states that a district may reserve water "for the protection of fish and wildlife or the public health and safety," it also states that "all presently existing legal uses of water shall be protected so long as such use is not contrary to the public interest."
21	Michael Walther, Clean Water Coalition of Indian River County	8/16/2021	Email	As an additional note, the Plan is based on a deficient model using 2014 data and insufficient sampling. There is a need for current information from additional well monitoring sites, spatially spread throughout the region, that monitor nutrients, chloride levels and potentiometric flow.	The East Central Florida Transient Expanded (ECFTX) model is a peer-reviewed groundwater flow model that was developed collaboratively by three water management districts with stakeholder input. The 2014 reference year condition was utilized for the CSEC RWSP base year as this modeling scenario was previously developed and utilized by the Central Florida Water Initiative. Model development details can be found at https://cfwiwater.com/pdfs/ECFTX_Model_Final_Report_Feb_2020.pdf. The ECFTX was not utilized in the CSEC RWSP water quality analysis, which looked at historic water use trends that were projected out to 2040.
22	Michael Walther, Clean Water Coalition of Indian River County	8/16/2021	Email	Additional Recommendation: Allocate additional funding for well (a) monitoring and (b) plugging – where warranted "for the protection of fish and wildlife or public health or safety".	The SJRWMD ambient monitoring program operates within an annual budget, which is approved by the Governing Board. The monitoring network is reviewed annually to ensure adherence to district missions and priorities, and monitored stations may be added or removed as necessary based on the data needs of the district. The inclusion of additional permitted wells in the water quality analysis will be considered in the five-year update of the CSEC RWSP. The SJRWMD Abandoned Artesian Well Plugging program also operates within a Governing Board-approved annual budget. In Brevard, Seminole, and Indian River counties, this program is supplemented with county funds and provides 100 percent of the well plugging costs. The Governing Board has recently expressed interest in expanding this program.
23	Michael Walther, Clean Water Coalition of Indian River County	8/16/2021	Email	Additional Recommendation: Fund a Mobile Irrigation Lab to support water conservation associated with irrigation on golf courses and at Homeowner's Associations (HOAs).	The SJRWMD Cost-share Program provides competitive funding assistance to projects that meet the district's core missions, including the conservation of water supplies. Funding assistance for mobile irrigation lab (MIL) programs would be considered provided the recommended retrofits are implemented and provide a quantifiable benefit.

CSEC RWSP Comment Number	Commenter and Associated Entity	Date Received	Manner of Submittal	Comment as Received[1]	CSEC RWSP Response
24	Michael Walther, Clean Water Coalition of Indian River County	8/16/2021	Email	Additional Recommendation: Only support increased use of reclaimed water where the reclaimed water meets AWT standards for direct discharge into the Lagoon.	While wastewater effluent limits are regulated by the Florida Department of Environmental Protection (FDEP), SJRWMD is concerned about water quality, especially within the Indian River Lagoon, and will work with FDEP to identify areas where nutrient-enriched reuse water is causing water quality problems which could be lessened by a reduction in effluent concentrations.
25	Michael Walther, Clean Water Coalition of Indian River County	8/16/2021	Email	Additional Recommendation: Establish a small grants program to pay homeowners to remove sod and replace with native vegetation.	Although the SJRWMD Cost-share Program provides competitive funding assistance to projects that meet the district's core missions, including the conservation of water supplies, the district does not consider solely turf swap programs eligible for this funding. Such programs are considered when they include either irrigation system abandonment or irrigation system retrofit for enhanced efficiency. Turf swap programs can be effective when they also reduce irrigation water use.
26	Michael Walther, Clean Water Coalition of Indian River County	8/16/2021	Email	Additional Recommendation: Support increased matching State funding to local governments to identify and rectify all water sources contributing nutrients and pollutants into the Indian River Lagoon.	The SJRWMD Cost-share Program provides competitive funding assistance to projects that meet the district's core missions, including water quality. The amount of funding assistance is determined annually by the SJRWMD Governing Board.
27	Sarah M. Whitaker, SMW GeoSciences, Inc.	8/24/2021 8/27/2021	Email	Request to include four water supply development projects in the CSEC RWSP for the City of Orange City.	The four projects were added to Appendix J. Due to the timing of project submittal, the project totals documented throughout the CSEC RWSP were not adjusted to reflect these additional projects.
28	David E. Gunter, Indian River Soil and Water Conservation District	8/26/2021	Email	The RWSP estimates for the potential availability of groundwater are not current. The agricultural projections in the CSEC RWSP are taken from the Florida Department of Agriculture and Consumer Services' (FDACS) Florida Statewide Agricultural Irrigation Demand (FSAID) Geodatabase FSAID IV (2017) while the newest FSAID VII (2020) was published June 30, 2020. This makes the statement in the executive summary that the RWSP "is based on the best data available" dubious.	The water demand projections for the CSEC RWSP were finalized in March 2018 and incorporated into the three groundwater models in order to perform the three water resource assessments required for this planning region. At the time the CSEC RWSP water demand projections were being developed, FSAID IV (2017) was the current dataset available from FDACS. A comparison of Indian River County 2040 projected agricultural demand based on FSAID IV (2017) versus FSAID VII (2020) shows a projected decrease in 2040 demand of over 10 mgd. Use of the higher number from FSAID IV, which was the dataset available at the time of CSEC projected demand development, resulted in a more conservative analysis of impacts to water resources and therefore was more protective of the resource. Revised agricultural acreage and water demand projections will be developed for the five-year update of the CSEC RWSP using the current data available from FDACS at that time. Corrected text in the Executive Summary to reflect that CSEC RWSP is based on the best data available "at the time of plan development."
29	David E. Gunter, Indian River Soil and Water Conservation District	8/26/2021	Email	Groundwater withdrawals from the Upper Florida aquifer have been reported to produce adverse impacts to CUP users east of I-95 in Indian River County. These adverse impacts include: a) diminished flow e.g. potentiometric drawdown. This is a critical concern in that both agricultural and domestic self-supply wells are dependent on artesian flow to supply surface pumps. Without surface flow, both domestic supply and agricultural CUP users are immediately out of water. In light of the three actively pumped (with submersible pumps) well fields in Indian River County, namely the following: i) Indian River County's North and South well fields permitted to withdraw a combined total of 12.84 mgd and ii) FPL's Okeechobee Clean Energy Center permitted in 2017 to withdraw 9 mgd - the decision not to perform a modeling scenario for the Brevard, Indian River, Okeechobee sub-region and to use the older 2014 reference condition is in our estimate a mistake because of the significant increase in withdrawals occurring more that 3-5 years later than the 2014 reference condition.	Consumptive uses of water must not cause interference (i.e., a decrease in withdrawal capability) to existing legal uses of water, which includes other consumptive uses (e.g., agricultural and domestic wells), pursuant to section 373.223, *Florida Statutes* . If an interference complaint is received by the district, regulatory staff will investigate and require mitigation by the responsible party (or parties) if interference is confirmed. As mentioned in Appendix A of the CSEC RWSP, SJRWMD has received one interference complaint in Indian River County related to loss of artesian flow, which has since been mitigated. For the Brevard, Indian River, and Okeechobee sub-region, groundwater modeling was performed using the East Central Florida Transient Expanded model, which predicted the change in surficial aquifer and Upper Floridan aquifer (UFA) water levels from the 2014 reference year to 2040. A "project" scenario (i.e., change in UFA water levels from 2014 to 2040 with water resource and water supply development projects) was not modeled since the projected increase in demand could be met with the low estimates for water conservation potential and additional reclaimed water provision. SJRWMD estimates of annual water use in Indian River County did not show a significant increase in withdrawals three to five years after the 2014 reference condition, mainly due to decreases in agricultural irrigation.
30	David E. Gunter, Indian River Soil and Water Conservation District	8/26/2021	Email	Groundwater withdrawals from the Upper Florida aquifer have been reported to produce adverse impacts to CUP users east of I-95 in Indian River County. These adverse impacts include: b) Water quality as increasing salinity especially chlorides are increasing as reported to the SWCD by growers. In view of this, we suggest that both the number and spatial distribution of water well sampling sites be increased in Indian River County (only 5 DOWN wells in IRC, Fig. A3-12) and location east of I-95. Similarly, the number of agricultural wells should be increased and spatially diverse (e.g. only one farming operation in IRC, page A3-24). The IRSWCD would be willing to assist the District in locating agricultural operations that would provide access to such wells.	SJRWMD is aware of anecdotal instances of water quality changes in agricultural wells in Indian River County, however, the water quality analysis within the CSEC RWSP did not show any increasing chloride trends in the Indian River County agricultural wells that were included in the analysis. SJRWMD will consider adding additional wells to the water quality analysis in the five-year update of the CSEC RWSP. The SJRWMD Regulatory Program will continue to evaluate the potential for harmful saltwater intrusion and upconing during CUP application review to ensure all permitting criteria are met prior to permit issuance. If unforeseen water quality impacts do occur subsequent to permit issuance, SJRWMD will require mitigation by the responsible permittee(s).
31	David E. Gunter, Indian River Soil and Water Conservation District	8/26/2021	Email	Surficial water system is being degraded by leaking artesian well casings that are 50-70 years old. What is missing in the CSEC RWSP is: a) a calculated estimate as to the number of leaking artesian wells and the associated water losses due to leaking well heads and casings. b) adequate funding for the Abandoned Artesian Well Plugging Program. c) a funded well logging program for CUP wells to determine the condition of the well and consideration for possible cost share funding to repair leaking wells.	The SJRWMD Abandoned Artesian Well Plugging program (Program) assists well owners by properly plugging wells that can adversely impact the quantity or quality of groundwater, including wells with leaky casings. The Program operates within an annual budget, which is approved by the Governing Board. In Brevard, Seminole, and Indian River counties, the Program is funded jointly by SJRWMD and the county and provides 100 percent of the plugging costs. Currently, SJRWMD depends upon well owners or other members of the public to report deteriorating wells for consideration for this Program. The Governing Board has recently expressed interest in expanding this Program.
32	David E. Gunter, Indian River Soil and Water Conservation District	8/26/2021	Email	Landscape irrigation using public water supply (PWS) sourced water needs significant more funding to convert to a pressurized reclaimed water source. Furthermore, reuse water should not be supplied to on site retention ponds for storm water retention that are not equipped to handle the associated nutrient loads.	The SJRWMD Cost-share Program provides competitive funding assistance to projects that meet the district's core missions, including water conservation and conversion to alternative water supplies. Historically funded projects have included expansion of reclaimed water provision and irrigation system retrofits. When reclaimed water will be discharged to a permitted wet detention pond for irrigation use, an environmental resource permit (ERP) modification is required prior to the wet detention pond being used as a storage facility for the reclaimed water. During review of the requested ERP modification, the pollutant load due to the addition of the reclaimed water is analyzed, as well as the operation/withdrawal of water from the wet detention pond. If the wet detention pond is used to store the reclaimed water, then the wet detention pond is typically modified to function as a stormwater harvesting pond so as to address the additional pollutant load and the frequency of discharge from the pond.
33	David E. Gunter, Indian River Soil and Water Conservation District	8/26/2021	Email	And our final and most important comment is that the IRSWCD would like to invite the appropriate representatives from the District to attend our meetings to discuss and assess future water supply and management strategies. We are eager to work together with the District to participate in collaborative water supply planning and to develop processes to assess the long-term effectiveness of water management strategies.	Thank you for your comment. SJRWMD staff look forward to continuing to work with the IRCSWD regarding future water supply and management strategies.
34	Eric A. Smith, City of Daytona Beach	8/27/2021	Email	Pages A1-29 thru A1-30 of Appendix A (Supplemental Regional Water Supply Plan Components for the CSEC RWSP Sub-Regions) makes note of future surface water and groundwater modeling for Indian Lake. The write-up discusses additional modeling being done by 2023 to potentially show benefits to Indian Lake from the Tiger Bay Weir and Bennett Swamp rehydration project. Who is doing/paying for the anticipated 2023 water model?	SJRWMD is funding and managing this modeling effort.
35	Eric A. Smith, City of Daytona Beach	8/27/2021	Email	The population projections presented in Appendix B (Population and Water Demand Projections) are low for Daytona Beach based on our data. The projections appear to be based on the City limits rather than the service area, which includes unincorporated Volusia County and portions of Daytona Beach Shores. Additionally, South Daytona is a wholesale customer to Daytona Beach. As such, that population needs to be included in the calculation. As a condition of a previous version of CUP #8834, the City of Daytona Beach has provided Annual Water reports to the District for years 2015-2019, which included population numbers. The report for 2020 was not submitted, as the City obtained a new CUP which no longer required the information to be submitted. However, the population for 2020 was estimated at 93,823 which already exceeds the 2040 population projection of 92,559 outlined in Appendix B.	All draft public supply projections were sent to respective Volusia County utilities for review in October 2017. The water demand projections for the CSEC RWSP were finalized in March 2018 and incorporated into the three groundwater models in order to perform the three water resource assessments required for this planning region. SJRWMD recognizes that projections do fluctuate over time as a result of service area expansions and recent growth rates, which is why utilities are not limited to population or demand projections identified in a water supply plan. During September 2018 through March 2020, the city submitted new data to support increased projected population and water demand. This data was utilized to justify the city's requested allocation in its 2020 CUP renewal. The current CUP authorizes 16.03 mgd associated with a population of 111,846 at 2040. For the five-year update of the CSEC RWSP, population and public supply water demand projections will again be calculated based on the most current data available and will be forwarded to utilities for review and comment prior to finalization for inclusion in the plan update.

CSEC RWSP Comment Number	Commenter and Associated Entity	Date Received	Manner of Submittal	Comment as Received[1]	CSEC RWSP Response
36	Eric A. Smith, City of Daytona Beach	8/27/2021	Email	Pages 28 and 29 of Appendix G (SJRWMD Approved Prevention and Recovery Strategies Within the CSEC RWSP Area) outline the Reclaimed Water Expansion in Eastern Volusia County project. Within that project description, it is noted that the City of Daytona Beach will "likely" move forward with a full-scale DPR facility. The City has NO INTENTION of implementing a full-scale direct potable reuse project in the foreseeable future. If this project is not done, how will the Reclaimed Water Expansion in Eastern Volusia County project, valued at $45.2M, be affected?	The referenced pages 28 and 29 of Appendix G are from the *2018 Five-Year Strategy Assessment for the Implementation of Minimum Flows and Levels for Volusia Blue Spring and Big, Daugharty, Helen, Hires, Indian, and Three Island Lakes.* The draft version of this document was sent to the City of Daytona Beach for review and comment in February 2019. The next five-year strategy update will be developed in 2023 at which time the language indicating the city's interest in moving forward with a full-scale DPR facility will be removed. The DPR facility was not included in the Reclaimed Water Expansion in Eastern Volusia County project, but rather mentioned as a possible alternate use of a portion of the reclaimed water available at 2040. Therefore, if a full-scale DPR project is not implemented, the Reclaimed Water Expansion in Eastern Volusia County project will not be affected.
37	Matt Jordon, Indian River County Department of Utility Services	8/30/2021	Email	**IRCDUS Water Need Demand Projections** - In Table B-5 of Appendix B of the CSEC, IRCDUS' water demand projections for the year 2040 are listed to be 14.76 mgd. We believe this number to be too low, largely because it does not reflect projected expansion in IRCDUS' service area over time to accommodate future development in areas so designated under Indian River County's comprehensive plan. Here is a map showing IRCDUS' existing and projected service area through the year 2040: The annualized population growth rate for Indian River County from the years 1999 through 2018 is 1.97%. We believe this reflects a good estimate of a long-term population growth rate for the County. We also believe that, based on historical IRCDUS' usage rates, and current and projected IRCDUS water conservation measures, a gross per capita usage rate of 101 gpd is appropriate. If this 2% per year growth rate is applied to the BEBR Indian River County population located within the above referenced expanded service area starting in the year 2018 and extended through the year 2040, the resulting projected IRCDUS water demand is 19.01 mgd. This IRCDUS projected 2040 water demand of 19.01 mgd is a more accurate estimation of IRCDUS' water supply needs through the CSEC's planning horizon. IRCDUS requests that the water demand information for IRCDUS shown on Table B-5 of Appendix B be revised accordingly.	Table B-5 in Appendix A shows 2040 projected water demand of 13.92 mgd for Indian River County Department of Utility Services (IRCDUS). The referenced 14.76 mgd demand is actually associated with a 1-in-10 year drought at 2040. All draft public supply projections were sent to respective utilities for review in December 2017. The water demand projections for the CSEC RWSP were finalized in March 2018 and incorporated into the three groundwater models in order to perform the three water resource assessments required for the this planning region. SJRWMD recognizes that projections do fluctuate over time as a result of service area expansions and recent growth rates, which is why utilities are not limited to demand projections identified in a water supply plan. In November 2019, SJRWMD and IRCDUS tentatively agreed to a 2040 demonstrated demand of 19.01 mgd during a pre-application discussion related to an upcoming CUP renewal. This updated demand was based on the most current information available to both parties. For the five-year update of the CSEC RWSP, population and public supply water demand projections will be again be calculated based on the most current data available and will be forwarded to utilities for review and comment prior to finalization for inclusion in the plan update.
38	Matt Jordon, Indian River County Department of Utility Services	8/30/2021	Email	**WRCA Justification** – On Appendix A, page A3-31, the following statement is presented: *Although SJRWMD has only received one complaint regarding the loss of artesian flow in this region, which has been mitigated by the responsible party, increased water demand resulting from growth in northern Indian River County has the potential to impact additional wells.* The CSEC presents no data or information to support the latter portion of this statement, in that increased water demand resulting from growth in northern Indian River County has the potential to impact additional wells. In other words, the CSEC has no data or information indicating how much increased demand must occur before wells are impacted, no data or information on the location of these potentially impacted additional wells, and no groundwater modeling or other information to support this statement. It is also unclear as to why this statement is relevant to determining the CSEC is a Water Resource Caution Area (WRCA). A WRCA is a geographic area the District identifies as having existing water resource problems, or an area in which water resource problems are projected to develop during the next twenty years. (See rule 62-40.210(43), F.A.C.) Moreover, the State Water Resource Implementation Rule provides the following: *Districtwide water supply assessments shall be developed in accordance with the provisions of Section 373.036(2)(b)4., F.S. The assessment shall determine whether sources of water are adequate to supply water for all existing and projected reasonable-beneficial uses and to sustain the water resources and related natural systems. If it is determined that sources of water are not adequate, the affected area shall have a regional water supply plan developed in accordance with Section 373.0361, F.S. and Rule 62-40.531, F.A.C. The determinations shall be updated at least every 5 years. Within one year of the determination that a regional water supply plan is needed for a water supply planning region, the region shall also be designated as a water resource caution area. Domestic wastewater treatment facilities which are located within, or serve a population located within, or discharge within water resource caution areas shall be subject to the reuse requirements of Section 403.064, F.S. (See rule 62-40.520(2), F.A.C.)* As can be seen from this language, the decision of whether to declare an area a WRCA turns on a comparison of the needs of existing and projected reasonable-beneficial uses and the ability of those uses to be met while sustaining the water resources and related natural systems. Whether increased water demand resulting from growth could potentially impact unknown wells is not a part of the WRCA determination analysis according to this DEP rule. IRCDUS does not object to the declaration of the CSEC being a WRCA based on a proper analysis pursuant to rule 62-40.520(3), F.A.C. If the above referenced statement must remain in the CSEC, IRCDUS would suggest revising it to read as follows: *Since the adoption of the District-wide 2005 Regional Water Supply Plan, the SJRWMD has only received one complaint regarding the loss of artesian flow in this region, which has been mitigated by the responsible party. As is the case with any groundwater source anywhere within the SJRWMD shared by multiple users, an increase in withdrawals by one user may affect another. In such case, the SJRWMD's consumptive use permitting requirements to protect against interference with existing legal users would address this issue.*	Reduction or loss of artesian flow in free-flowing UFA wells has been and continues to be a concern for agricultural uses in Indian River County and is a concern documented by the SFWMD in neighboring St. Lucie County. Inclusion of these concerns in the CSEC RWSP was meant to only support the WRCA designation, as they were not quantified in the water resource assessment. The text within the CSEC RWSP was clarified to indicate that the reduction or loss of artesian flow is an additional water resource concern in this sub-region that is separate from the designation of the WRCA. The Brevard, Indian River, and Okeechobee sub-region was proposed for inclusion in the CSEC WRCA based on water quality constraints identified in the water resource assessment.

[1]Comments received in writing have been stated as provided by the commenter. Comments received orally in the public workshops may be paraphrased.

M2: Written Public Comment

From: Angel Martin
To: Central Springs/East Coast Regional WSP Comments
Subject: Comments--Central Springs/East Coast Regional Water Supply Plan
Date: Tuesday, August 10, 2021 8:05:19 PM

Below are comments concerning the draft Central Springs/East Coast Regional Water Supply Plan. Please contact me if any additional information or clarifications are needed concerning the subject comments. Thank you for the opportunity to comment on the water-supply plan.

1. More information is needed regarding the Central Springs Model besides the areal extent as shown on figure 16 in the plan. Some information should be provided concerning the model layering. Will model layers be similar to the other groundwater-flow models within the CSEC RWSP area? Assume that the USGS MODFLOW model code will be used and not another code, such as a hybrid model where fractures are accounted for? Also, some discussion of boundary conditions should be included. Will data and information from the three models within the area be used for the Central Springs Model? Why is a new model needed? Is it expected that the Central Springs Model will better simulate the groundwater-flow system and improve predictions to 2040? Will the periods of simulated calibration and projections be similar for the Central Springs Model as for the Northern District, East-Central Florida Transient, and Volusia Models? Some consideration should be given to developing a saltwater-intrusion model, such as SEAWAT, for simulation in areas prone to saltwater intrusion. Also, there should be some discussion on the effects of climate change on 2040 predictions.
2. Besides the predicted changes in water-level maps from 2015 to 2040 for the three available models within the CSEC RWSP area, suggest adding an accompanying table for each predicted change illustration showing the change in fluxes for the model area from 2015 to 2040. The table should show the predicted changes in spring flows, flows across model boundaries, and other flow features.
3. Appendix C should not be titled as the simulated change in the potentiometric surface within the CSEC flow model domains. What the illustrations are showing in this appendix are not changes in potentiometric surfaces but the differences in model-simulated drawdowns by model cell. No potentiometric surfaces are shown on the illustrations. Better if the counties were labeled on these illustrations along with a base map showing the position in Florida. Some discussion should be added explaining why there are areas with increasing water levels. On figure C-5, there doesn't seem to be any areas on the map with increasing water levels? There should be no areas defined in the Legend that are not present on the illustration. This also applies to figure C-3 and possible other figures.
4. Why are there no water-supply development project options (Appendix I) concerning further use of the Lower Floridan aquifer even if the water quality in Lower Floridan may be of lower quality than the Upper Floridan aquifer? What is the difference in the tables concerning the terms reuse and reclaimed? Do these terms mean the same? What is the difference in the Status column between Feasibility and Planning? These terms should be defined.
5. Concerning the water-supply development projects, there should be follow-up and reporting on what each project is actually producing. The capacities ae reported but the actual project totals should be reported on an annual basis.

_____

Angel Martin
813-767-6944

Clean Water Coalition
CWC
of Indian River County, Inc.

August 16, 2021

Douglas Burnett, Chairman
Governing Board
St. Johns River Water Management District
P.O. Box 1429
Palatka, FL 32178-1429
also via email to: csecrwspocomments@sjrwmd.com

Re: Central Springs/East Coast Regional Water Supply Plan (2020-2040)

Dear Honorable Members of the District Governing Board:

This letter is to provide additional comments regarding the referenced DRAFT Water Supply Plan. Please note the following:

Overview: As identified at the District's July 28th Public Workshop in Indian River County, the Clean Water Coalition:

- Supports the District's development of a comprehensive regional water resources plan that addresses and restores the health of all water resources – including groundwater, springs, surface water bodies, and wetlands – to support all water uses in the public interest.
- Encourages the District's Plan to maximize recycling of waters (domestic and agricultural) – consistent and in close collaboration with FDEP's *One Water Florida Campaign* – to (a) "inform Floridians on the use of recycled water in the state to meet the growing demand for water", and (b) implement effective measures to meet this "growing demand".

Demand Assumptions: x
Page 31 of the DRAFT Plan cites: "It is important to note that reductions in water use resulting from current and historical water conservation efforts are reflected in the 2040 water demand projections …in part, because of the effects of existing water conservation." Page 58 of the DRAFT Plan cites: "However, SJRWMD anticipates that a conservation only strategy will not offset the predicted shortfall in fresh groundwater supplies." Page 59 Cites: "savings can also be gained by improving agricultural irrigation efficiency". These questionable conservation assumptions warrant the District to both:

- identify alternative sources to reliably meet future water demands; and
- provide District funding to support implementation of conservation measures.

Scope: Chapter 3 of the DRAFT Plan indicates a Purpose to "determine the potential for unacceptable impacts to groundwater quality, springs, and surface water bodies". However, assessment of water quality impacts is based upon the sourced water versus the ultimate fate of the water uses. For example:

- Domestic water uses result in significant discharge of nutrient rich wastewater either via (a) inadequate wastewater treatment plants which discharge effluent to receiving waters, or (b) via septic tanks which directly affect the surficial aquifer.
- Agricultural water uses commonly result in discharge of waters with excessive nutrients due to fertilizer use or ranch wastes.

As part of the Plan, the District should assess water uses and their ultimate "impacts to groundwater quality, springs, and surface water bodies".

Model: Page 39 of the DRAFT Plan cites: “Increases in groundwater withdrawals and sea level rise may accelerate degrading water quality trends over time. SJRWMD is developing additional tools that will predict water quality changes based on various withdrawal and sea level scenarios”. These tools should include a hydrologic and water quality model that should be immediately funded and expanded to include all water sources, their uses, and resulting “impacts to groundwater quality, springs, and surface water bodies”. An assessment of existing conditions should be developed ASAP based on available water quality and consumptive use data and used to establish initial conditions of the model, which should be calibrated and verified periodically based on future monitoring data obtained via expansion of the District’s Work Plan for “hydrologic and water quality data collection, monitoring, and analysis”.

Plan Limitations: These plans are not working to preserve the natural systems through conservation and growth management. As a result, water quality will suffer as natural systems are disrupted. Subsection 373.223(4), F.S., authorizes the Districts and FDEP to reserve water from use by permit applicants for the protection of fish and wildlife or public health or safety; the District should exercise this authority.

There appears to be a glaring disconnect between goals of District’s consumptive use permitting program and the District’s Bureau of Water Supply Planning efforts. As an example: Since 2017, the District has developed a *Black Creek Water Resource Development Project* – now estimated to cost “between $63.8 and $82.9 million.” – intended “to increase recharge to the Upper Floridan aquifer” in Clay County where lakes at Keystone Heights have dried-up due to excessive water withdrawals; the need for this project reflects an absence of planning in the District’s issuance of CUPs. A similar plan is under discussion within the Suwannee River Water Management District to pipe water from the Suwannee River to replenish the Ichetucknee Springs watershed; again, this project reflects an absence of planning in the District’s issuance of CUPs.

The proposed Plan for our region of the State indicates (a) a water shortfall in groundwater resources is expected by 2040 to meet the anticipated population growth and water demand within the region, and (b) potential measures to meet the demand. The issuance or denial of proposed Consumptive Use Permits (CUPs) should be consistent with the Plan to avoid shortfalls and to preserve/restore water quality of all regional waters – consistent with Subsection 373.223(4), F.S.

As an additional note, the Plan is based on a deficient model using 2014 data and insufficient sampling. There is a need for current information from additional well monitoring sites, spatially spread throughout the region, that monitor nutrients, chloride levels and potentiometric flow.

Additional Recommendations: The CWC recommends that the District:

- Allocate additional funding for well (a) monitoring and (b) plugging – where warranted “for the protection of fish and wildlife or public health or safety”.
- Fund a Mobile Irrigation Lab to support water conservation associated with irrigation on golf courses and at Homeowner’s Associations (HOAs)
- Only support increased use of reclaimed water where the reclaimed water meets AWT standards for direct discharge into the Lagoon.
- Establish a small grants program to pay homeowner’s to remove sod and replace with native vegetation.
- Support increased matching State funding to local governments to identify and rectify all water sources contributing nutrients and pollutants into the Indian River Lagoon.

Thank you for your ongoing and future efforts to restore our Indian River County waters!

If you have any questions regarding this letter, please contact me.

Michael Walther
772-559-2493
Clean Water Coalition of Indian River County

cc: SJRWMD Governing Board – via Ann B. Shortelle, Ph.D.
Senator Debbie Mayfield
Representative Erin Grall
Indian River County Commission – via Jason Brown
IRC Soil and Water Conservation District - via Linda Caggiano
CWC Board

From: Sarah Whitaker
To: Joy Kokjohn
Cc: Migdalia Hernandez
Subject: FW: Link to CSEC RWSP Appendix J - Orange City"s proposed projects
Date: Tuesday, August 24, 2021 4:25:03 PM
Attachments: image001.png
image002.png
Draft CSEC RWSP Proposed Water Supply Development Project City of Orange City.xlsx

---

Good afternoon Joy,

Please see the attached projects for consideration in the updated CSEC RWSP. May we set up a time to review and finalize them for inclusion in the RWSP to be approved?

I am available anytime tomorrow morning.

Thank you.

Sarah M. Whitaker, P.G.
President

SMW GeoSciences, Inc.
1028 W. New Hampshire Street
Orlando, FL 32804

P 407.426.2836 M 407.234.4675
swhitaker@smwgeosciences.com
www.smwgeosciences.com
http://www.linkedin.com/in/smwhitaker

From: Joy Kokjohn <JKokjohn@sjrwmd.com>
Sent: Monday, August 23, 2021 9:18 AM
To: Sarah Whitaker <swhitaker@smwgeosciences.com>
Subject: Link to CSEC RWSP Appendix J

https://www.sjrwmd.com/static/plans/csec/Appendix-J_071221_ada.pdf

Let me know if you need anything else. -Joy

Joy Kokjohn
Regional Water Supply Planning Coordinator
Bureau of Water Supply Planning
St. Johns River Water Management District
P.O. Box 1429 ● Palatka, FL 32178-1429
Office: (386) 329-4223
Mobile: (904) 810-8080
Email: jkokjohn@sjrwmd.com
Website: www.sjrwmd.com

Connect with us: Newsletter, Facebook, Twitter, Instagram, YouTube, Pinterest

www.sjrwmd.com/ePermit

We value your opinion. Please take a few minutes to share your comments on the service you received from the District by clicking this link

Notices

• Emails to and from the St. Johns River Water Management District are archived and, unless exempt or confidential by law, are subject to being made available to the public upon request. Users should not have an expectation of confidentiality or privacy.

• Individuals lobbying the District must be registered as lobbyists (§112.3261, Florida Statutes). Details, applicability and the registration form are available at http://www.sjrwmd.com/lobbyist/

County	Project Name	Implementing Entit	Project Description	Project Type	Water Source	Project Capacity (MGD)	Total Capital ($M)	Estimated Annual O&M ($/Year)	Status	Antipated Completion (Year)
Volusia	Kentucky Road Reclaimed Expansion	City of Orange City	Ground Storage Tank for Alternative Water Sources	AWS	Surface (Deltona/DeLand) and Reclaimed	1 MGD	$2		Planning	2026
Volusia	City of Orange City Brackish Water Project	City of Orange City	Construction of a Lower Floridan aquifer well to develop a brackish water source , raw water transmission line, and treatment	AWS	Lower Floridan aquifer	2 MGD	$30		Planning	2027
Volusia	City of Orange City Well field Optimization	City of Orange City	Implementation of stratiegies to relocate withdrawls in the Upper Floridan aquifer further from Blue Springs	Upper Floridan aquifer	Upper Floridan aquifer	3 MGD	$6		Planning	2027

From:	Joy Kokjohn
To:	Sarah Whitaker
Cc:	Migdalia Hernandez
Subject:	RE: Link to CSEC RWSP Appendix J - Orange City"s proposed projects
Date:	Wednesday, August 25, 2021 8:17:00 AM
Attachments:	image003.png image004.png

Sarah,
The projects look fine. I just need estimates of annual O&M costs. Can you get me these by Friday?

Joy

From: Sarah Whitaker <swhitaker@smwgeosciences.com>
Sent: Tuesday, August 24, 2021 4:25 PM
To: Joy Kokjohn <JKokjohn@sjrwmd.com>
Cc: Migdalia Hernandez <mhernandez@ourorangecity.com>
Subject: FW: Link to CSEC RWSP Appendix J - Orange City's proposed projects

Good afternoon Joy,

Please see the attached projects for consideration in the updated CSEC RWSP. May we set up a time to review and finalize them for inclusion in the RWSP to be approved?

I am available anytime tomorrow morning.

Thank you.

Sarah M. Whitaker, P.G.
President

SMW GeoSciences, Inc.
1028 W. New Hampshire Street
Orlando, FL 32804

P 407.426.2836 M 407.234.4675
swhitaker@smwgeosciences.com
www.smwgeosciences.com
http://www.linkedin.com/in/smwhitaker

From: Joy Kokjohn <JKokjohn@sjrwmd.com>
Sent: Monday, August 23, 2021 9:18 AM
To: Sarah Whitaker <swhitaker@smwgeosciences.com>
Subject: Link to CSEC RWSP Appendix J

https://www.sjrwmd.com/static/plans/csec/Appendix-J_071221_ada.pdf

Let me know if you need anything else. -Joy

Joy Kokjohn
Regional Water Supply Planning Coordinator
Bureau of Water Supply Planning
St. Johns River Water Management District
P.O. Box 1429 ● Palatka, FL 32178-1429
Office: (386) 329-4223
Mobile: (904) 810-8080
Email: jkokjohn@sjrwmd.com
Website: www.sjrwmd.com
Connect with us: Newsletter, Facebook, Twitter, Instagram, YouTube, Pinterest

We value your opinion. Please take a few minutes to share your comments on the service you received from the District by clicking this link

Notices

• Emails to and from the St. Johns River Water Management District are archived and, unless exempt or confidential by law, are subject to being made available to the public upon request. Users should not have an expectation of confidentiality or privacy.

• Individuals lobbying the District must be registered as lobbyists (§112.3261, Florida Statutes). Details, applicability and the registration form are available at http://www.sjrwmd.com/lobbyist/

From:	Sarah Whitaker
To:	Joy Kokjohn
Cc:	Migdalia Hernandez; Krista Hurd; Elizabeth Thomas (ethomaspe@gmail.com)
Subject:	CSEC RWSP - projects for Orange City
Date:	Friday, August 27, 2021 9:45:09 AM
Attachments:	image001.png CSEC RWSP Proposed Water Supply Development Project City of Orange City.xlsx

Good morning Joy,

Please see the attached spreadsheet. If you have questions or need anything else, please let me know.

Thank you,

Sarah M. Whitaker, P.G.
President

SMW GeoSciences, Inc.
1028 W. New Hampshire Street
Orlando, FL 32804

P 407.426.2836 M 407.234.4675
swhitaker@smwgeosciences.com
www.smwgeosciences.com
http://www.linkedin.com/in/smwhitaker

County	Project Name	Implementing Entity	Project Description	Project Type	Water Source	Project Capacity (MGD)	Total Capital ($M)	Estimated Annual O&M ($/Year)	Status	Anticipated Completion (Year)
Volusia	Kentucky Road Reclaimed Expansion	City of Orange City	Ground Storage Tank for Alternative Water Sources	AWS	Surface (Deltona/DeLand) and Reclaimed	1 MGD	$2	$20,000	Planning	2026
Volusia	City of Orange City Brackish Water Project	City of Orange City	Construction of a Lower Floridan aquifer well to develop a brackish water source, raw water transmission line, and treatment	AWS	Lower Floridan aquifer	2 MGD	$30	unknown/TBD	Planning	2027
Volusia	City of Orange City Well field Optimization	City of Orange City	Implementation of strategies to relocate withdrawals in the Upper Floridan aquifer further from Blue Springs	Upper Floridan aquifer	Upper Floridan aquifer	3 MGD	$6	unknown/TBD	Planning	2027
Volusia	CRA Septic to Sewer	City of Orange City	Collection of septic tank wastewater and transfer it for treatment to County-owned Southwest Regional Wastewater Reclamation Facility. Project develops an AWS and increases water supply with additional reclaimed water available to customers.	AWS	Reclaimed	0.5 MGD	$10	$40,000	Phase 1 under Construction	2030

Indian River Soil and Water
CONSERVATION DISTRICT

1800 27th Street, Building B (2nd Floor) Vero Beach, Florida 32960
Phones: (772) 226-4397 FAX: (772) 226-1740

Sent via email to: csecrwspcomments@sjrwmd.com
August 26, 2021

Joy Kokjohn
Regional Water Supply Coordinator
St. Johns River Water Management District (SJRWMD)
P.O. Box 1429
Palatka, FL 32178-1429

Re: Public Comments on the Draft Central Springs/East Coast Regional Water Supply Plan (RWSP) by the Indian River Soil and Water Conservation District's (IRSWCD) Board of Supervisors.

Dear Ms. Kokjohn:

The IRSWCD Board of Supervisors are duty-bound to express the following comments on the District's draft RWSP (2020–2040):

1) The RWSP estimates for the potential availability of groundwater are not current.
   a) The agriculture projections in CSEC RWSP are taken from the Florida Department of Agriculture and Consumer Services' (FDACS) Florida Statewide Agricultural Irrigation Demand (FSAID) Geodatabase FSAID IV (2017) while the newest FSAID VII (2020) was published June 30, 2020 . This makes the statement in the executive summary that the RWSP "is based on the best data available" dubious.

2) Groundwater withdrawals from the Upper Florida aquifer have been reported to produce adverse impacts to CUP users East of I-95 in Indian River County. These adverse impacts include:
   a) diminished flow e.g. potentiometric drawdown. This is a critical concern in that both agricultural and domestic self-supply wells are dependent on artesian flow to supply surface pumps. Without surface flow, both domestic supply and agricultural CUP users are immediately out of water. In light of the three actively pumped (with submersible pumps) well fields in Indian River County, namely the following:
      i) Indian River County's North & South well fields permitted to withdraw a combined total of 12.84 MGD and
      ii) FPL's Okeechobee Clean Energy Center permitted in 2017 to withdraw 9 MGD
      -the decision not to perform a modeling scenario for the Brevard, Indian River, and Okeechobee sub-region and to use the older 2014 reference condition is in our estimate a mistake because of the significant increase in withdrawals occurring more than 3-5 years later than the 2014 reference condition.

b) Water quality as increasing salinity especially chlorides are increasing as reported to the SWCD by growers. In view of this, we suggest that both the number and spatial distribution of water well sampling sites be increased in Indian River County (only 5 DOWN wells in IRC, Fig. A3-12) and located East of I-95. Similarly the number of agricultural wells should be increase and spatially diverse (e.g. only one farming operation in IRC, page A3-24). The IRSWCD would be willing to assist the District in locating agricultural operations that would provide access to such wells.

3) Surficial water system is being degraded by leaking artesian well casings that are 50-70 years old. What is missing in the CSEC RWSP is:
   a) a calculated estimate as to the number of leaking artesian wells and the associated water losses due to leaking well heads and casings.
   b) adequate funding for the Abandoned Artesian Well Plugging Program
   c) a funded well logging program for CUP wells to determine the condition of the well and consideration for possible cost share funding to repair leaking wells

4) Landscape irrigation using public water supply (PWS) sourced water needs significantly more funding to convert to a pressurized reclaimed water source. Furthermore, reuse water should not be supplied to on site retention ponds for storm water retention that are not equipped to handle the associated nutrients loads."

5) And our final and most important comment is that the IRSWCD would like to invite the appropriate representatives from the District to attend our meetings to discuss and assess future water supply and management strategies. We are eager to work together with the District to participate in collaborative water supply planning and to develop processes to assess the long-term effectiveness of water management strategies.

Thank you for your time and consideration in these constructive comments.

Sincerely,

David E. Gunter
Chairman, Indian River SWCD

City of Daytona Beach
UTILITIES DEPARTMENT
125 Basin Street, Suite 130
Daytona Beach, Florida 32114
(386) 671 8800

August 27, 2021

RE: Central Springs/East Coast Regional Water Supply Plan
Stakeholder Comments – City of Daytona Beach

To whom it may concern,

The City of Daytona Beach Utilities Department has reviewed the Central Springs/East Coast Regional Water Supply Plan covering 2020 thru 2040. As part of our review process, we developed the following questions/comments related to the plan and associated appendices.

- Pages A1-29 thru A1-30 of Appendix A (Supplemental Regional Water Supply Plan Components for the CSEC RWSP Sub-Regions) makes note of future surface water and groundwater modeling for Indian Lake. The write-up discusses additional modeling being done by 2023 in to potentially show benefits to Indian Lake from the Tiger Bay Weir and Bennett Swamp rehydration project. Who is doing/paying for the anticipated 2023 water model?

- The population projections presented in Appendix B (Population and Water Demand Projections) are low for Daytona Beach based on our data. The projections appear to be based on the City limits rather than the service area, which includes unincorporated Volusia County and portions of Daytona Beach Shores. Additionally, South Daytona is a wholesale customer to Daytona Beach. As such, that population needs to be included in the calculation. As a condition of a previous version of CUP #8834, the City of Daytona Beach has provided Annual Water reports to the District for years 2015-2019, which included population numbers. The report for 2020 was not submitted, as the City obtained a new CUP which no longer required the information to be submitted. However, the population for 2020 was estimated at 93,823 which already exceeds the 2040 population projection of 92,559 outlined in Appendix B.

- Pages 28 and 29 of Appendix G (SJRWMD Approved Prevention and Recovery Strategies Within the CSEC RWSP Area) outline the Reclaimed Water Expansion in Eastern Volusia County project. Within that project description, it is noted that the City of Daytona Beach will "likely" move forward with a full-scale DPR facility. The City has NO INTENTION of implementing a full-scale direct potable reuse project in the foreseeable future. If this project is not done, how will the Reclaimed Water Expansion in Easter Volusia County project, valued at $45.2M, be affected?

We appreciate the opportunity to submit these comments/questions to you and look forward to your response as Appendix M (Stakeholder Comments and SJRWMD Responses) is developed.

Eric A. Smith, PE
Deputy Utilities Director
City of Daytona Beach

Cc:

Shannon Ponitz, City of Daytona Beach – Utilities Director
Robin Cook, City of Daytona Beach – Regulatory Compliance Manager

INDIAN RIVER COUNTY
BOARD OF COUNTY COMMISSIONERS
1801 27th Street, Vero Beach, FL 32960-3388

August 27, 2021

Joy Kokjohn
Regional Water Supply Planning Coordinator
St. Johns River Water Management District
P.O. Box 1429
Palatka, FL 32178-1429

Via email: csecrwspcomments@sjrwmd.com

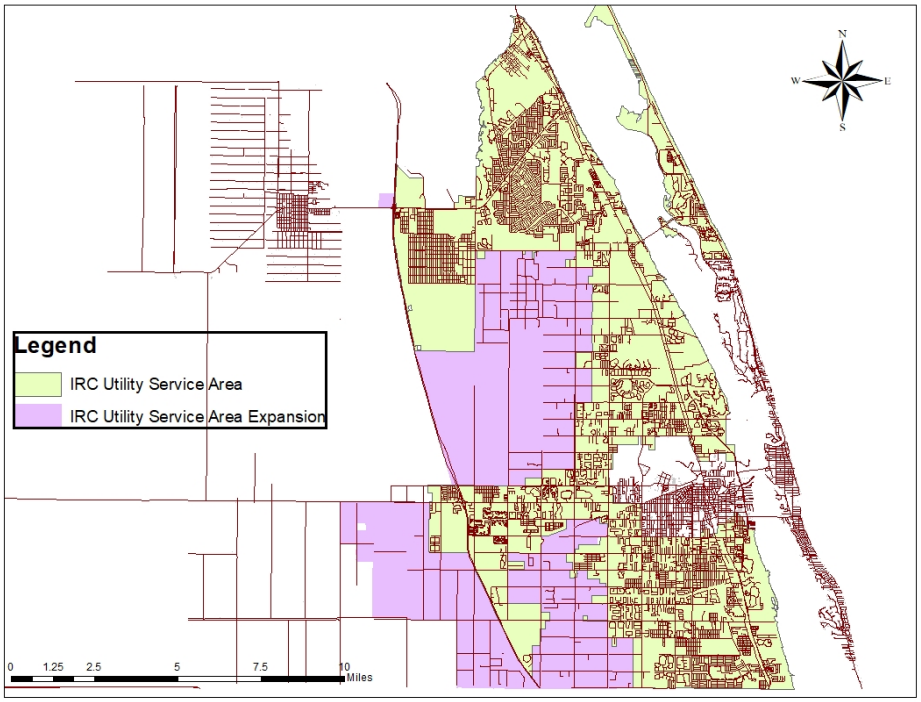
RE: Indian River County Department of Utility Services Comments on Draft Central Springs/ East Coast Regional Water Supply Plan

Dear Ms. Kokjohn:

Indian River County Department of Utility Services (IRCDUS) provides the following comments on the St. Johns River Water Management District's (District) draft Central Springs/East Coast Regional Water Supply Plan (CSEC). As brief background, IRCDUS is a public water supply utility serving a population of approximately 129,643, covering most of Indian River County. The District issued a consumptive use permit to IRCDUS authorizing the withdrawal of brackish groundwater from the Upper Floridan Aquifer for this water supply. Due to IRCDUS' use of brackish groundwater, IRCDUS uses an entirely alternative water supply to meet its needs.

1. **IRCDUS Water Need Demand Projections** – In Table B-5 of Appendix B of the CSEC, IRCDUS' water demand projections for the year 2040 are listed to be 14.76 mgd. We believe this number to be too low, largely because it does not reflect projected expansion in IRCDUS' service area over time to accommodate future development in areas so designated under Indian River County's comprehensive plan.

   Here is a map showing IRCDUS' existing and projected service area through the year 2040:



The annualized population growth rate for Indian River County from the years 1999 through 2018 is 1.97%. We believe this reflects a good estimate of a long-term population growth rate for the County. We also believe that, based on historical IRCDUS' usage rates, and current and projected IRCDUS water conservation measures, a gross per capita usage rate of 101 gpd is appropriate. If this 2% per year growth rate is applied to the BEBR Indian River County population located within the above referenced expanded service area starting in the year 2018 and extended through the year 2040, the resulting projected IRCDUS water demand is 19.01 mgd.

This IRCDUS projected 2040 water demand of 19.01 mgd is a more accurate estimation of IRCDUS' water supply needs through the CSEC's planning horizon. IRCDUS requests that the water demand information for IRCDUS shown on Table B-5 of Appendix B be revised accordingly.

2. **WRCA Justification** – On Appendix A, page A3-31, the following statement is presented:

   Although SJRWMD has only received one complaint regarding the loss of artesian flow in this region, which has been mitigated by the responsible party, increased water demand resulting from growth in northern Indian River County has the potential to impact additional wells.

The CSEC presents no data or information to support the latter portion of this statement, in that increased water demand resulting from growth in northern Indian River County has the potential to impact additional wells. In other words, the CSEC has no data or information indicating how much increased demand must occur before wells are impacted, no data or information on the location of these potentially impacted additional wells, and no groundwater modeling or other information to support this statement.

It is also unclear as to why this statement is relevant to determining the CSEC is a Water Resource Caution Area (WRCA). A WRCA is a geographic area the District identifies as having existing water

resource problems, or an area in which water resource problems are projected to develop during the next twenty years. (See rule 62-40.210(43), F.A.C.) Moreover, the State Water Resource Implementation Rule provides the following:

> *Districtwide water supply assessments shall be developed in accordance with the provisions of Section 373.036(2)(b)4., F.S. The assessment shall determine whether sources of water are adequate to supply water for all existing and projected reasonable-beneficial uses and to sustain the water resources and related natural systems. If it is determined that sources of water are not adequate, the affected area shall have a regional water supply plan developed in accordance with Section 373.0361, F.S. and Rule 62-40.531, F.A.C. The determinations shall be updated at least every 5 years. Within one year of the determination that a regional water supply plan is needed for a water supply planning region, the region shall also be designated as a water resource caution area. Domestic wastewater treatment facilities which are located within, or serve a population located within, or discharge within water resource caution areas shall be subject to the reuse requirements of Section 403.064, F.S.* (See rule 62-40.520(2), F.A.C.)

As can be seen from this language, the decision of whether to declare an area a WRCA turns on a comparison of the needs of existing and projected reasonable-beneficial uses and the ability of those uses to be met while sustaining the water resources and related natural systems. Whether increased water demand resulting from growth could potentially impact unknown wells is not a part of the WRCA determination analysis according to this DEP rule.

IRCDUS does not object to the declaration of the CSEC being a WRCA based on a proper analysis pursuant to rule 62-40.520(3), F.A.C. If the above referenced statement must remain in the CSEC, IRCDUS would suggest revising it to read as follows:

> *Since the adoption of the District-wide 2005 Regional Water Supply Plan, the SJRWMD has only received one complaint regarding the loss of artesian flow in this region, which has been mitigated by the responsible party. As is the case with any groundwater source anywhere within the SJRWMD shared by multiple users, an increase in withdrawals by one user may affect another. In such case, the SJRWMD's consumptive use permitting requirements to protect against interference with existing legal users would address this issue.*

If you have questions about the content of this letter, please contact me.

Sincerely,

Matt Jordan
Interim Director of Utility Services

Attachments:
Appendix A – WRCA Excerpt
Appendix B – Demand Projection Insert
Table J-3 – IRCDUS Water Supply Development Project Options