

Central Florida Water Initiative



Appendices



REGIONAL WATER SUPPLY PLAN

2020

A comprehensive plan for Orange,
Osceola, Polk, Seminole, and
southern Lake counties.

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This document is the Final 2020 Central Florida Water Initiative (CFWI) Regional Water Supply Plan (RWSP), Appendices. Staff from the South Florida Water Management District (SFWMD), St. Johns River Water Management District (SJRWMD), and Southwest Florida Water Management District (SWFWMD) (Districts) worked together and in conjunction with members of various CFWI technical teams and other stakeholders to generate this 2020 CFWI RWSP. Section 373.709, Florida Statutes (F.S.), details the components of regional water supply plans.

These documents are available at cfwiwater.com.

The Final Draft is ADA compliant. If you need assistance, contact the following agencies or www.cfwiwater.com:

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Acronyms and Abbreviations

AFSIRS	Agricultural Field Scale Irrigation Requirements Simulation
AG	Agriculture
ASR	aquifer storage and recovery
AWE	Alliance for Water Efficiency
AWE tool	Alliance for Water Efficiency's Water Conservation Tool
AWS	alternative water supply
BEBR	University of Florida's Bureau of Economic and Business Research
BMPs	best management practices
CII	commercial/industrial/institutional
cfs	cubic feet per second
CFWI	Central Florida Water Initiative
CUP/WUP	consumptive use permit/water use permit
DMIT	Data, Monitoring, and Investigations Team
DSS	domestic self-supply and small public supply systems
ECFT	East Central Florida Transient Groundwater Model
ECFTX	East Central Florida Transient Groundwater Expanded Model
EMT	Environmental Measures Team
F.A.C.	Florida Administrative Code
FAS	Floridan aquifer system
FDACS	Florida Department of Agriculture and Consumer Services
FDOT	Florida Department of Transportation
FDEP	Florida Department of Environmental Protection
FFL	Florida-Friendly Landscaping™
FGUA	Florida Government Utility Authority
F.S.	Florida Statutes
FSAID IV	FDACS Florida Statewide Agricultural Irrigation Demand version 4
FY	Fiscal Year
GAT	Groundwater Assessment Team

GIS	Geographic Information System
gpcd	gallons per capita per day
gpd	gallons per day
gpm	gallons per minute
HAT	Hydrologic Assessment Team
IPR	indirect potable reuse
KCOL	Kissimmee Chain of Lakes
LFA	Lower Floridan aquifer
LR	landscape/recreational
MFL(s)	Minimum Flow(s) and Minimum Water Level(s)
MFLRT	Minimum Flows and Levels and Reservations Team
mgd	million gallons per day
MIL	mobile irrigation laboratory
MODFLOW	Modular groundwater flow model
N/A	Not applicable
NAVD	North American Vertical Datum of 1988
NGVD	National Geodetic Vertical Datum of 1929
NRCS	Natural Resource Conservation Service
OCU	Orange County Utilities
OUC	Orlando Utility Commission
PRMRWSA	Peace River Manasota Regional Water Supply Authority
PRWC	Polk Regional Water Cooperative
PS	Public Supply
RCID	Reedy Creek Improvement District
RIB	Rapid Infiltration Basin
RO	reverse osmosis
RWSP	Regional Water Supply Plan
SAS	surficial aquifer system
SC	Steering Committee
SFR	single-family residential
SFWMD	South Florida Water Management District

SJRWMD	St. Johns River Water Management District
SWFWMD	Southwest Florida Water Management District
SWIMAL	Saltwater Intrusion Minimum Aquifer Level
SWUCA	Southern Water Use Caution Area
TBW	Tampa Bay Water
TDS	total dissolved solids
TECO	Tampa Electric Company
TWA	Tohopekaliga Water Authority
UF	University of Florida
UFA	Upper Floridan aquifer
USGS	United States Geological Survey
WDPS	Water Demand Projections Subgroup
WPCG	Water Planning Coordination Group
WRAT	Water Resource Assessment Team
WSIS	Water Supply Impact Study
WTP	water treatment plant
WWTP	wastewater treatment plant

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Population and Water Demand Projections

INTRODUCTION

This Appendix contains information on the methodology and data developed by the Central Florida Water Initiative (CFWI) Regional Water Supply Plan (RWSP) Team used to develop the water demand estimates and projections for the 2020 CFWI RWSP for six water use categories, as well as future reclaimed water supply. It also describes the methodologies used to determine the spatial distribution of projected groundwater withdrawals used in the East Central Florida Transient Extended (ECFTX) groundwater flow model scenarios. The CFWI RWSP Team consists of staff from the St. Johns River, South Florida, and Southwest Florida Water Management Districts (SJRWMD, SFWMD, SWFWMD [Districts]), the Florida Department of Environmental Protection (FDEP), the Florida Department of Agriculture and Consumer Services (FDACS), and stakeholders.

Background and Water Use Categories

The planning horizon for the 2020 CFWI RWSP is 2015 to 2040. Population and water demand estimates and projections are a cornerstone for assessing the water needs and availability in regional water supply planning. The Districts develop water demand projections to evaluate “existing legal uses, anticipated future needs, and existing and reasonably anticipated sources of water and conservation efforts,” as set forth in subparagraph 373.036(2)(b)4a, Florida Statutes (F.S.). The Districts’ goal is to project water demands that are reasonable and based on the best information available.

Water demands for this 2020 CFWI RWSP are estimated in 5-year increments (Subsection 62-40.531 (1)(a), Florida Administrative Code (F.A.C.)), for the following six water use categories established by the FDEP and the state’s five water management districts:

1. Public Supply (PS) - This category includes water provided by any municipality, county, regional water supply authority, special district, public or privately-owned water utility, or multijurisdictional water supply authority for human consumption and other purposes with average annual permitted quantities of 0.1 mgd or greater.

2. Domestic Self-supply and Small Public Supply Systems (DSS)
 - a. The DSS category consists of residential dwellings that are self-supplied water from a dedicated, on-site well and are not connected to a central utility.
 - b. The DSS category also includes centralized Small Public Supply Systems (SPSS) that provide water for human consumption with average annual permitted quantities of less than 0.1 mgd.
3. Agricultural (AG) - The AG category consists of water use associated with the irrigation of crops and other miscellaneous water uses associated with agricultural production (e.g., aquaculture, livestock).
4. Landscape/Recreational (LR) - The LR category consists of water use associated with the irrigation, maintenance, and operation of golf courses, cemeteries, parks, medians, attractions, common areas in residential areas, and other large self-supplied green areas.
5. Commercial/Industrial/Institutional (CII)
 - a. The CII category consists of self-supplied water use associated with the production of goods or provisions of services by CII establishments (e.g., general businesses, office complexes, commercial cooling and heating, bottled water, food and beverage processing, restaurants, gas stations, hotels, car washes, churches, hospitals, and prisons).
 - b. The CII category also includes mining/dewatering, which is the use of water associated with mining (extraction and processing of subsurface materials and minerals) and long-term dewatering (removal of water to control surface or groundwater levels during construction or excavation activities).
6. Power Generation (PG) - The PG category consists of self-supplied water use associated with power plant and power generation facilities, including but not limited to water for steam generation, cooling, and replenishment of cooling reservoirs.

Other than the PS category, all other water use categories obtain water from dedicated, on-site wells and pumps and are not connected to a central utility. In addition to the six water use categories listed above, future reclaimed water flow projections are developed that could potentially be used to partially offset water demand. Reclaimed water is treated domestic wastewater that has received at least secondary treatment and basic disinfection and is reused for a beneficial purpose. Water demands and reclaimed water flows are expressed in average million gallons per day (mgd) unless otherwise noted.

In April 2016, to continue the collaborative process, the Steering Committee (SC) of the CFWI adopted the 2020 Guiding Principles. The first Guiding Principle was to review and update the 2015 CFWI RWSP as well as the sustainable quantities of traditional groundwater sources available in the CFWI Planning Area that can be used without causing potential unacceptable harm to the water resources and associated natural systems. Included with this Guiding Principle was the task to update the population and water demand projections from the 2015 CFWI RWSP, with consistent methodologies, where feasible. The SC approved the

methodologies on July 22, 2016 (for PS, DSS, LR, CII, and PG) and July 10, 2017 (for AG) for the 2020 CFWI RWSP.

Data for the baseline year consists of reported and estimated water usage for 2015, whereas data for the years 2020 through 2040 are projected water demands. Water use estimates and demand projections for the six water use categories were calculated for the years 2015, 2020, 2025, 2030, 2035, and 2040 based on average rainfall conditions, in addition to a 1-in-10 year drought event for 2040. The 1-in-10 year drought event is defined as a year in which below normal rainfall occurs with a 10 percent probability of occurring in any given year. These below normal rainfall conditions result in an increase in water demands for four of the six water use categories. Future reclaimed water flows were also calculated for the year 2040.

METHODOLOGY

Data and Information Sources

The methodology to develop population and water demand estimates and projections uses many data sources such as:

1. Finished water supplied by PS and SPSS collected by FDEP through Monthly Operating Reports (MORs).
2. Water use estimates reported by permittees to the Districts through the Consumptive Use/Water Use Permitting (CUP/WUP) program.
3. District published annual water use inventory data (SWFWMD 2013, 2014a, 2014b, 2015 and 2016; SJRWMD 2012-2016; SFWMD 2016-2017).
4. Permitted quantities and percentages of water use as reported in CUP/WUPs.
5. University of Florida's Bureau of Economic and Business Research (BEBR) publications (Smith 2017).
6. FDEP Annual Reuse Inventory Report (FDEP 2016).
7. Power Plant 10-Year Site Plans collected by the Public Service Commission (PSC).
8. Historic water use data were used to develop the water demand estimates and projections in this 2020 CFWI RWSP and are consistent with the historic water use applied in the development and calibration of the ECFTX groundwater flow model.

PS and DSS Population Estimates and Projections

In developing RWSPs, the Districts must consider BEBR medium population projections pursuant to Section 373.709(2)(a)1a, F.S. The population projections developed by BEBR are commonly used in planning efforts throughout Florida. These projections are made at the county-level only (Smith 2017) and require distribution among PS (and SPSS) service areas and DSS parcels.

The Districts contracted with BEBR to develop small-area population estimates and projections for the CFWI Planning Area, including all of Brevard County. BEBR's Geospatial Small-Area Population and Forecasting Model was used to estimate and project permanent residential population at the parcel level and then normalize the projections to BEBR's medium county level forecasts (Smith 2017). The BEBR contract deliverable included a geospatial point file with historic permanent residential population estimates for the years 2010-2016, future permanent residential population projections for 2020-2045 (in five-year increments), and a build-out scenario.

Using BEBR's small-area population estimates and projections, the Districts aggregated the parcel level population to each PS (and SPSS) service area in the CFWI Planning Area. These efforts provided historic, future, and build-out permanent resident populations for each PS and SPSS. Because of the service area boundary characteristics, the estimated historic service area population may differ from estimates of utility population served. This difference can occur when a service area includes self-supplied populations that may be currently unserved by the respective utility.

DSS population was the population for all parcels outside of PS and SPSS service areas, aggregated in five-year increments from 2015 to 2040. In some cases, a DSS population within PS and SPSS service areas was identified through previously submitted account level billing data and well completion reports; this population was attributed to the DSS category. The population by county (after adding the total population for each SPSS for each respective county) is shown in a **Table A-6**.

PS Water Demand

Gross Per Capita Water Use

For PS and SPSS, the gross per capita water use is defined as the total raw water withdrawn (including residential and non-residential uses) for each individual permittee or system divided by its respective service area population. The gross per capita water use (in gallons per capita per day or gpcd) represents on average how much water one person would use in a day.

A PS/SPSS specific gross gpcd was applied to each respective PS/SPSS service area projected permanent residential population to calculate future average-year water demands. The source of the data varied (metered data or raw water withdrawals and MOR data or finished water withdrawals), however most of the treatment methods currently used in the CFWI Planning Area have minimal treatment losses and any differences are assumed to be negligible. Water demand projections were based on the most recent five-year (2011-2015) average gross per capita rate (at the time the projections were developed), which accounts for annual variations in water use with respect to rainfall fluctuations and recent implementation of conservation programs. Imports and exports were identified to correctly capture the appropriate withdrawal scenarios for groundwater modeling purposes. In cases where water use data were not available from the sources identified, the Districts used professional judgement of historical data and trends to estimate values.

For this 2020 CFWI RWSP it is assumed that current levels of water conservation and use of reclaimed water will continue through the year 2040 planning horizon; additional

conservation and the use of reclaimed water will be effective in reducing future water demands.

The Districts have observed a reduction in per capita water use over the last decade that may be attributed to a variety of factors, including economic conditions, climatic variability, indoor and outdoor conservation, and source substitution with reclaimed water. The use of a five-year average gross per capita accounts for some variability in these factors.

Estimated and projected water demand for each individual PS is shown in **Table A-5a** (and by county in **Table A-5**) and includes five-year increments from 2015 to 2040. A water demand projection for 2040 during a 1-in-10 year drought is also shown. Water demand for SPSS (individually listed in **Table A-6a**) were aggregated for each county and were added to the respective county demand for the DSS category (shown in **Table A-6**).

To calculate the 1-in-10 year water demand projections, the average year water demands were multiplied by 1.06. The 1-in-10 year Drought Subcommittee of the Water Planning Coordination Group (WPCG) concluded that a six percent increase in water demand would occur in such an event for the PS water use category (WDPS 1998).

Spatial Groundwater Distribution

For groundwater modeling purposes, the projected groundwater demand and associated location of withdrawal needed to be determined. For example, there are some PS within the CFWI Planning Area that have permitted surface water withdrawals (limited to Seminole County and City of Cocoa). For the CUP/WUPs with surface water withdrawals, groundwater demand was estimated as the total water demand minus the permitted surface water withdrawal. The projected groundwater demand, specific to each PS and SPSS, was distributed based on PS utility or SPSS data. Where data were not available, projected groundwater demand was distributed evenly to their respective active or proposed wells/stations contained in their CUP/WUP. In addition, well size and pumping capabilities were taken into consideration so that the maximum yield of the well/station was not exceeded. For those PS systems with multiple wellfields and/or specific wellfield allocations, the associated water demand was divided proportionally amongst the respective wellfields and then further to the wellfields' respective wells/stations.

DSS Water Demand

The water demand and population projections for SPSS are calculated individually but are combined with the DSS category for reporting purposes at the county level.

Residential Per Capita Water Use

For DSS, the residential per capita water use (also referred to as household) is defined as the water use for solely residential (indoor and outdoor) purposes. The residential gpcd was estimated from the county level residential population served and residential water use. To achieve this, the total water use for each year (2011-2015) for each PS and SPSS was reduced to reflect only the indoor and outdoor residential portion of the total PS and SPSS water use. This was calculated using data reported directly from PS and SPSS systems, as well as the percent of residential water use identified in a CUP/WUP. The resulting residential water use

values for each PS and SPSS system were summed to the county level and divided by the total PS service area population (at county level) to obtain the county-level average 2011-2015 residential gpcd. The average 2011-2015 county level residential gpcd was then multiplied by the projected 2020, 2025, 2030, 2035, and 2040 DSS population (by county).

The DSS estimated and projected water demand by county (after adding the total water demand for SPSS) is shown in **Table A-6** and includes five-year increments from 2015 to 2040. A water demand projection for a 2040 during a 1-in-10 year drought is also included. Identical to PS, to calculate the 1-in-10 year water demand projections for DSS, the average year water demands were multiplied by 1.06.

Spatial Groundwater Distribution

Each SPSS future groundwater demand and location of withdrawal was spatially distributed as defined in the PS section.

Outside of PS and SPSS service areas, single family and multi-family parcels with residential housing units were identified using Department of Revenue data; for these parcels, a point was added to the centroid of each identified parcel to represent a well/station. Within PS and SPSS service areas, where available, account level billing data and well completion reports were used to determine DSS within those respective service areas. For these parcels, a point was added to the centroid of each identified parcel to represent a well/station. The DSS water demand for each five-year increment was then distributed evenly among the identified DSS parcels, for each county respectively. For SWFWMD, instead of identified parcels, a consultant-based product was used which, in a grid format, has an identifier including the number of DSS wells in each grid. The DSS water demand for each five-year increment for SWFWMD was distributed evenly among the grids based on the number of wells in each grid. For counties located in more than one water management district (e.g., Orange County), the projected DSS water demand for each District was only applied to the DSS parcels identified within their respective portion of the county.

Agricultural Water Demand

Section 570.93, F.S., directs FDACS to develop annual statewide agricultural acreage and water demand projections based on the same 20-year planning horizon used in water supply planning. Pursuant to Section 373.709(2)(a), F.S., the Districts are required to consider agricultural water demand projections produced by FDACS. Any adjustment or deviation from data provided by FDACS must be fully described, and the original data must be presented along with the adjusted data. FDACS publishes 20-year agricultural acreage and associated water demand projections in the annual Florida Statewide Agricultural Irrigation Demand (FSAID) reports, through a contract with The Balmoral Group. The fourth annual report (referred to as FSAID IV) which was published in June 2017 (FDACS 2017), contains estimated and projected agricultural acreage and water demand projections for the State of Florida for five-year increments from 2015 to 2040, as well as a water demand projection for 2040 demands during a 1-in-10 year drought. Detailed methodology can be found in the FSAID IV Report.

The FSAID IV agricultural acreage and water demand projections were used in this 2020 CFWI RWSP. However, one adjustment was made for the approved North Ranch Sector Plan

in the SJRWMD portion of Osceola County. A sector plan contains a long-term master plan that generally identifies water supplies needed and available sources of water, including water resource development and water supply development projects, and water conservation measures, to meet the projected water demands of the future land uses in the long-term master plan. The long-term master plan can be based upon a planning period longer than the generally applicable planning period of the local comprehensive plan. Once the long-term master plan becomes legally effective, the water needs, sources, and water development projects identified in the master plan must be incorporated into the applicable RWSP [Section 163.3245(4)(b), F.S.]. The North Ranch Sector Plan approval and Comprehensive Plan Amendment can be found under Ordinance 2015-73, CPA14-0005, Osceola County. Due to timing, the information contained in the North Ranch Sector Plan could not be included in FSAID IV. FDACS is working with Deseret Ranches to ensure that future iterations of FDACS' FSAID incorporate the details of the North Ranch Sector Plan.

Acreage

The acreage estimates and projections were taken directly from FSAID IV, with the one adjustment to include the approved North Ranch Sector Plan area, which added approximately 7,200 acres in 2040.

The estimated and projected irrigated agricultural acreage by county is shown in **Table A-7** in five-year increments from 2015 to 2040. Acreage by crop type is included in **Table A-7a**.

As required per Section 373.709(2)(a)1b, F.S., the original FSAID IV acreage data is shown for comparison in **Table A-7**.

Demand

As stated above, water use estimates and water demand projections were taken directly from the FSAID IV Report, with the adjustment for the approved North Ranch Sector Plan area, which added approximately 27 mgd of demand in 2040.

The estimated and projected agricultural water demand by county is shown in **Table A-7** in five-year increments from 2015 to 2040. Water demand for 2040 during a 1-in-10 year drought is also included. Water demand by crop type and miscellaneous type uses are included in **Tables A-7a and A-7b**.

As required per Section 373.709(2)(a)1b, F.S., the original FSAID IV data is shown for comparison in **Table A-7**.

Spatial Groundwater Distribution

The FSAID IV deliverable contains the location, in polygon format, of all estimated future agricultural water demand in the five-year increments necessary for groundwater modeling. The Districts used the FSAID IV deliverable and refined the data to account for those agricultural areas using surface water and converted the delivered polygon layer to a point layer (tied to CUP/WUP well/station location) for use in groundwater modeling. Detailed methodology regarding the conversion of polygon water demands to point water demands

and the conversion of total water demands to reflect groundwater and surface water demands is available at <https://www.sjrwmd.com/> (SJRWMD 2018).

Spatial distribution of the water demand projections for the North Ranch Sector Plan area was provided by Dan Rutland, representing Deseret Ranches, and was incorporated into the deliverable used for groundwater modeling.

Landscape / Recreational Water Demand

Water demand for the LR category was projected at the county level using a respective historic LR average gpcd. The county specific LR average gpcd was calculated from LR average water use for 2011-2015, obtained from ECFTX groundwater flow model calibration dataset and BEBR estimates of county population for 2011-2015 (BEBR 2017), available at www.cfwewater.com.

The average LR gpcd was applied to the additional population projected by BEBR (BEBR 2017) for each five-year increment and the associated water demand was added to the 2015 base-year water use. An exception to this method was made for SWFWMD to remove golf course water use from the LR gpcd calculation as SWFWMD does not anticipate any growth associated with golf courses in Polk County.

The estimated and projected LR water demand by county is shown in **Table A-8** in five-year increments from 2015 to 2040. Water demand for 2040 during a 1-in-10 year drought is also included.

The 1-in-10 year Drought Subcommittee of the WPCG, as stated in their final report, determined that values using agricultural (irrigation) models, historic data and net irrigation ratios are acceptable when calculating the 1-in-10 year water demand projection. A factor was developed for each county, using the highest year water use from 2011-2015 and the percent increase from the 2011-2015 LR water use. For example, if water use in 2012 was X percent higher than the 2011-2015 five-year average, X percent was applied to the average 2040 water demand to project a 2040 1-in-10 year water demand.

Spatial Groundwater Distribution

The projected water demand for the LR category is only estimated at the county level. For groundwater modeling purposes, the groundwater demand and associated location of withdrawal needed to be determined. Several LR CUP/WUPs have surface water withdrawals; future groundwater demand for the respective future years at the county level was calculated using the 2015 percent split between groundwater and surface water (via reported CUP/WUP data and the Districts' published reports (SWFWMD 2016; SJRWMD 2016; SFWMD 2017). The county level groundwater demand for future year scenarios was then distributed to the CUP/WUP level using a percent share method of permitted allocation. For example, if an LR CUP/WUP's groundwater allocation represented 10 percent of the county's total groundwater allocation in 2015, then the LR CUP/WUP allocation also maintained 10 percent of the county groundwater allocation in 2040. The estimated projected groundwater demand specific to each LR CUP/WUP was then distributed evenly to their respective active or proposed wells/stations. In addition, well size and pumping capabilities were included to not exceed the maximum yield of the well/station. For counties

located in more than one District (e.g., Orange County), the projected LR water demand for the District was only applied to the respective LR CUP/WUPs and wells/stations identified within their portion of the county. While future land use and potential new locations of LR polygons was not taken into consideration, the method applied is generally accepted as a valid method for regional planning purposes.

Commercial / Industrial / Institutional Water Demand

Water demands for the CII category were projected at the county level using a respective historic CII average gpcd. The county specific CII average gpcd was calculated from CII average water use for 2011-2015, obtained from ECFTX groundwater flow model calibration dataset. CII historic water use and water demand consists of only consumptive uses; recycled surface water and non-consumptive uses were removed. For this 2020 CFWI RWSP, surface water use by mining operations represents 5 percent of total surface water use, to account for the loss of water in mining products and evaporation. The remaining surface water was assumed to be recirculated in the mining process and, therefore, considered non-consumptive. For clarification, consumptive use for planning purposes is defined by the Districts as any use of water that reduces the supply from which it is withdrawn or diverted.

The CII average gpcd was applied to the additional population projected by BEBR (BEBR 2017) for each five-year increment and the associated water demand added to the 2015 base year water use. Water demands for large CII facilities that are not impacted by population growth (e.g., pulp and paper mills and Mosaic in SWFWMD) were held constant.

The estimated and projected CII water demand by county is shown in **Table A-9** in five-year increments from 2015 to 2040.

The 1-in-10 year Drought Subcommittee of the WPCG, as stated in their final report, determined that drought events do not have significant effects on water use in the CII category. Water use for the CII category is related primarily to processing and production needs and, therefore, the average water demands and 1-in-10 water demands are assumed to be equal.

Spatial Groundwater Distribution

See the LR spatial groundwater distribution explanation above. The methodology for spatial distribution of future groundwater for the CII category for modeling purposes is the same, using the projected CII future groundwater demands.

Power Generation Water Demand

Water demand was calculated for each PG facility and then summed to the county level for consumptive uses of water only; recycled surface water and non-consumptive uses were removed. Surface water use by PG facilities represents 2 percent of total surface water use to account for the loss of water due to evaporation and is included in the water demand projections. An example of this is surface water used for once-through cooling for power plants, which is recycled or returned to the withdrawal source.

The PSC requires that each PG utility produce detailed ten-year site plans for its facilities. These plans include planned facilities and generating capacity expansion. The 2017 ten-year site plans for each PG facility within the CFWI Planning Area were downloaded from the PSC website (<http://www.psc.state.fl.us>) and were used in developing the PG water demand projections.

In order to project future water demand, this 2020 CFWI RWSP utilized a methodology that incorporated historic and projected customers, historic and projected megawatts, and the average daily gallon per megawatt use for 2011-2015. Each ten-year site plan contains information regarding historic and projected customers and megawatts, as well as planned capacity expansions or facility closures. The majority of the ten-year site plans extended through year 2025. The average customer growth rate was used to extrapolate projected customers beyond the ten-year site plans through the planning period of 2040. Using the last year data in each ten-year site plan, a megawatt use per customer was calculated and then applied to the future customers to project future megawatts. Future groundwater demand for 2020-2040 was calculated by applying the (2011-2015) average gallons used per historic megawatt to the projected megawatts specific to each PG facility. Specific stakeholder feedback was received from Duke and OUC regarding their PG facilities indicating that no additional future groundwater would be needed. In addition, TECO has completed a reclaimed water project that will offset the need for additional groundwater at their PG facility.

The estimated and projected PG water demand by county is shown in **Table A-10** in five-year increments from 2015 to 2040. The projections for individual PG facilities is included in **Table A-10a**.

The 1-in-10 year Drought Subcommittee of the WPCG, as stated in their final report, determined that drought events do not have significant effects on water use in the PG category. Water use for this category is related primarily to processing and cooling needs and therefore, the average water demands and 1-in-10 water demands are assumed to be equal.

Spatial Groundwater Distribution

Similar to the PS category, future water demand was projected in five-year increments through 2040 for each PG facility in the CFWI Planning Area. However, groundwater and surface water were projected separately for each facility based on the five-year (2011-2015) average gallons used per historic megawatt. The future groundwater demand, specific to each PG facility, was distributed evenly to their respective active or proposed wells/stations in their CUP/WUP or FDEP power plant site certification. In addition, well size and pumping capabilities were considered to not exceed the maximum yield of the well/station.

2040 Reclaimed Water Projection

Projections of future reclaimed water flows were made for domestic wastewater treatment facilities (WWTF) with 2015 permitted wastewater treatment capacities equal to or greater than 0.1 mgd (FDEP 2016).

Existing Flows

The 2015 flows were separated by total WWTF flow and beneficial reuse.

For this CFWI RWSP, beneficial reuse was considered to be only those uses in which reclaimed water takes the place of an existing or potential use of higher quality water for which reclaimed water is suitable, such as water used for landscape irrigation. The delivery of reclaimed water to other types of reclaimed water facilities such as rapid infiltration basins (RIBs) located in recharge areas and wetland hydration projects is considered beneficial reuse by the FDEP. However, these types of beneficial reuse do not directly replace groundwater withdrawals and were therefore classified separately as part of this plan. Generally, delivery of reclaimed water to spray fields and absorption fields are not considered beneficial reuse.

The FDEP has a statewide reuse utilization goal of 75 percent (FDEP 2003). Typically, for planning purposes, the WWTF flow is multiplied by 75 percent and the difference between the base year WWTF flow at 75 percent utilization and the amount considered to be beneficially reused is considered as potential existing additional reclaimed water that could be used for beneficial reuse. Currently, over 95 percent of the treated WWTF flow in the CFWI Planning Area is used for beneficial purposes. When determining how much WWTF flow can be utilized, it is recognized that each WWTF is unique and items such as system upgrades and treatment, additional storage, expansion of system, customer availability, and other factors are taken into consideration.

Future Flows

Using Public Water Service Area Boundaries, WWTF service areas, and CUP/WUPs, a WWTF service area layer was created that could identify areas that have the potential to be connected to central sewer systems as a result of population growth. The 2015-2040 increase in population for each WWTF service area identified was obtained using the parcel level projections deliverable created by BEBR, as described above (BEBR 2017). It was assumed that 95 percent of the population increase identified will receive sewer service and thereby return wastewater for treatment to a WWTF. It is acknowledged that the percentage of population growth and resulting wastewater flows will vary for individual service providers due to various factors. The 2015 base year population identified was reduced to account for residences on septic tanks using the Florida Department of Health's (FDOH) Florida Water Management Inventory Project (FDOH 2016).

It was further calculated that the increased population will generate approximately 73 gpcd of wastewater flows to the local WWTF. The 73 gpcd represents an average of 58.6 gpcd of wastewater generated by residential customers (indoor use) and 15 gpcd of wastewater generated by CII customers (indoor use), based upon the same projected population. The use of 73 gpcd is supported in literature such as the Wisconsin Department of Natural Resources Guidance for Wastewater Treatment Facility Design Flow Determinations which found that for WWTF design purposes, the average daily wastewater flow may be estimated as 65 gpcd to 80 gpcd for cities and towns of over 5,000 people (WIDNR). The 58.6 gpcd, for residential indoor wastewater is also supported by the American Water Works Association (AWWA 1999, 2016). Additionally, Chapter 64E-6, F.A.C., "Standards for Onsite Sewage Treatment and Disposal Systems", Rule 64E-6.008 System Size Determinations, Section (1)(B) Table I

(effective date 6/25/2009) - System Design, supports designs for wastewater return flows averaging 15 gpcd for employees at a commercial/industrial facility.

Only a portion of the existing and future wastewater treated for reuse is actually used to offset water demands that would otherwise require the use of fresh groundwater. The amount of potable offset that is typically achieved utility-wide is approximately 65 percent to 75 percent; however, the potable offset can range from 50 percent to as much as 100 percent, depending on the type of use being replaced. While the amount of potable offset that is achieved by reuse is dependent upon the demographics of a particular WWTF's service area, the projected wastewater flows do not represent an amount equal to the water demand reduction due to system losses and inefficiencies of reuse by customers.

Reclaimed water systems are unique to each utility and the potential WWTF flow estimated for this 2020 CFWI RWSP may not necessarily represent the amount of reclaimed water that could be used in projects. Current treatment processes, WWTF capacities, storage and infrastructure, and inflow and infiltration reduction programs should be considered and could potentially impact the utilization cost of additional or currently available reclaimed water. Likewise, future and existing reclaimed water utilization may be higher than the scenarios presented, if the WWTF provided reclaimed water for reuse to more efficient customers. In addition, potential future wastewater flows could be less if additional residential indoor water conservation is achieved. For example, AWWA has identified on their website (www.Drinktap.org) that if residences installed, for every instance, more efficient water fixtures and regularly checked for leaks, daily indoor water use (and associated wastewater flow) could potentially be reduced to 45.2 gpcd (Vickers 2001).

Detailed flows and projections for 2015 and 2040 for each WWTF identified are included in **Tables A-13a, A-13b, and A-13c**.

Spatial Distribution

The Districts did not attempt to identify where future reclaimed water flows or beneficial reuse will occur.

Population and Water Demand Projections for Areas Outside of the CFWI Planning Area

The ECFTX groundwater model boundary extends well beyond the CFWI Planning Area. Water demand projections, specifically the spatial distribution, were obtained from each District's existing RWSPs and respective groundwater modeling efforts. Methodologies describing the water projections and spatial distribution can be found in each Districts' respective RWSPs, available online at: <https://www.sjrwmd.com/>, <https://www.swfwmd.state.fl.us/>, and <https://www.sfwmd.gov/>.

Review of Population and Water Demand Projections

The methodology and assumptions described above, including the resulting population and water demand projection tables, supporting agricultural tables, PG and DSS tables and reclaimed water projections, underwent a thorough review by the CFWI RWSP Team and

stakeholders; noting again that the CFWI RWSP Team consisted of staff from the Districts, FDEP, FDACS, utilities, and other stakeholders.

Water provider specific water use estimates and water demand projections were distributed to each water provider for review and comment. Changes and comments were incorporated where appropriate. Because this is a long-term planning effort, methodology changes based on short-term trends were not incorporated. However, additional refinements in the future may be considered as population and water use is continually monitored. Comments and suggested changes may be taken into consideration if they are justifiable, defensible, based on historical regression data and long-term trends, and supported by complete documentation. Changes that were considered and the resulting outcome/consensus from the CFWI RWSP Team are included in **Table A-14**.

Summary of Population and Water Demand Projections

The methodologies for calculating population and water demand projections for the six water use categories, as well as future reclaimed water flows, detailed in **Table A-1** and **A-13c**, are consistent with the specific plans of major water users at the time projections were made. The projections in this 2020 CFWI RWSP assume that the current levels of water conservation efforts and the use of reclaimed water will continue through the year 2040 planning horizon. If water conservation efforts and the use of reclaimed water within the CFWI Planning Area are implemented at rates higher than historic rates, then 2040 actual water use will be less than projected under average climatic conditions.

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Table A-1a. Public supply (PS) population estimates for 2015 and population projections for 2020-2040 by county for the CFWI Planning Area.

County/District	BEBR County Population	Public Supply Population	CFWI BEBR County Population Percent Change 2015-2040	CFWI Public Supply Population Percent Change 2015-2040										
	2015		2020		2025		2030		2035		2040			
City of Cocoa (SJRWMD)														
City of Cocoa-PS Total	178,704	178,704	190,375	190,375	199,285	199,285	206,178	206,178	211,309	211,309	215,987	215,987	21%	21%
Lake County (SJRWMD & SWFWMD)														
SJRWMD	117,465	106,058	137,632	129,987	155,035	146,730	167,615	158,712	177,803	168,302	187,739	177,652	60%	68%
SWFWMD	1,059	0	1,296	0	1,579	0	1,853	0	2,122	0	2,383	0	125%	0%
Lake PS Total	118,524	106,058	138,928	129,987	156,614	146,730	169,468	158,712	179,925	168,302	190,122	177,652	60%	68%
Orange County (SFWM & SJRWMD)														
SFWM	363,986	318,050	415,779	368,998	463,301	415,301	512,057	461,753	572,183	519,882	633,956	580,108	74%	82%
SJRWMD	883,182	814,256	983,039	916,557	1,083,085	1,018,464	1,158,172	1,095,125	1,209,408	1,148,148	1,251,800	1,192,653	42%	46%
Orange PS Total	1,247,168	1,132,306	1,398,818	1,285,555	1,546,386	1,433,765	1,670,229	1,556,878	1,781,591	1,668,030	1,885,756	1,772,761	51%	57%
Osceola County (SFWM & SJRWMD)														
SFWM	310,639	305,735	375,319	369,320	445,107	435,930	512,333	499,658	564,816	550,104	608,580	592,225	96%	94%
SJRWMD	1,415	225	2,110	232	2,793	239	3,416	245	3,960	251	4,631	256	227%	14%
Osceola PS Total	312,054	305,960	377,429	369,552	447,900	436,169	515,749	499,903	568,776	550,355	613,211	592,481	97%	94%
Polk County (SFWM & SWFWMD)														
SFWM	35,071	27,317	39,717	30,173	43,199	32,133	46,472	33,982	49,423	35,727	51,969	37,302	48%	37%
SWFWMD	597,981	563,458	658,283	620,444	714,001	672,979	760,328	716,697	804,277	758,150	844,431	795,893	41%	41%
Polk PS Total	633,052	590,775	698,000	650,617	757,200	705,112	806,800	750,679	853,700	793,877	896,400	833,195	42%	41%
Seminole County (SJRWMD)														
Seminole PS Total	444,413	434,215	476,219	466,761	505,527	496,207	529,932	521,448	552,233	544,010	571,833	563,962	29%	30%
Total Population														
Total SFWM	709,696	651,102	830,815	768,491	951,607	883,364	1,070,862	995,393	1,186,422	1,105,713	1,294,505	1,209,635	82%	86%
Total SJRWMD	1,625,179	1,533,458	1,789,375	1,703,912	1,945,725	1,860,925	2,065,313	1,981,708	2,154,713	2,072,020	2,231,990	2,150,510	37%	40%
Total SWFWMD	599,040	563,458	659,579	620,444	715,580	672,979	762,181	716,697	806,399	758,150	846,814	795,893	41%	41%
CFWI PS Total	2,933,915	2,748,018	3,279,769	3,092,847	3,612,912	3,417,268	3,898,356	3,693,798	4,147,534	3,935,883	4,373,309	4,156,038	49%	51%

Table A-1b. Domestic and small public supply systems (DSS) population estimates for 2015 and population projections by county for the CFWI Planning Area.

County/District	BEBR County Population	DSS Population	CFWI BEBR County Population Percent Change 2015-2040	CFWI DSS Population Percent Change 2015-2040										
	2015		2020		2025		2030		2035		2040			
City of Cocoa (SJRWMD)														
City of Cocoa DSS Total	178,704	0	190,375	0	199,285	0	206,178	0	211,309	0	215,987	0	21%	N/A
Lake County (SJRWMD & SWFWMD)														
SJRWMD	117,465	11,407	137,632	7,645	155,035	8,305	167,615	8,903	177,803	9,501	187,739	10,087	60%	-12%
SWFWMD	1,059	1,059	1,296	1,296	1,579	1,579	1,853	1,853	2,122	2,122	2,383	2,383	125%	125%
Lake DSS Total	118,524	12,466	138,928	8,941	156,614	9,884	169,468	10,756	179,925	11,623	190,122	12,470	60%	0%
Orange County (SFWMD & SJRWMD)														
SFWMD	363,986	45,936	415,779	46,781	463,301	48,000	512,057	50,304	572,183	52,301	633,956	53,848	74%	17%
SJRWMD	883,182	68,926	983,039	66,482	1,083,085	64,621	1,158,172	63,047	1,209,408	61,260	1,251,800	59,147	42%	-14%
Orange DSS Total	1,247,168	114,862	1,398,818	113,263	1,546,386	112,621	1,670,229	113,351	1,781,591	113,561	1,885,756	112,995	51%	-2%
Osceola County (SFWMD & SJRWMD)														
SFWMD	310,639	4,904	375,319	5,999	445,107	9,177	512,333	12,765	564,816	14,712	608,580	16,355	96%	234%
SJRWMD	1,415	1,190	2,110	1,878	2,793	2,554	3,416	3,171	3,960	3,709	4,631	4,375	227%	268%
Osceola DSS Total	312,054	6,094	377,429	7,877	447,900	11,731	515,749	15,846	568,776	18,421	613,211	20,730	97%	240%
Polk County (SFWMD & SWFWMD)														
SFWMD	35,071	7,754	39,717	9,544	43,199	11,066	46,472	12,490	49,423	13,696	51,969	14,667	48%	89%
SWFWMD	597,981	34,523	658,283	37,839	714,001	41,022	760,328	43,631	804,277	46,127	844,431	48,538	41%	41%
Polk DSS Total	633,052	42,277	698,000	47,383	757,200	52,088	806,800	56,121	853,700	59,823	896,400	63,205	42%	50%
Seminole County (SJRWMD)														
Seminole DSS Total	444,413	10,198	476,219	9,458	505,527	9,320	529,932	8,484	552,233	8,223	571,833	7,871	29%	-23%
Total Population														
Total SFWMD	709,696	58,594	830,815	62,324	951,607	68,243	1,070,862	75,469	1,186,422	80,709	1,294,505	84,870	82%	45%
Total SJRWMD	1,625,179	91,721	1,789,375	85,463	1,945,725	84,800	2,065,313	83,605	2,154,713	82,693	2,231,990	81,480	37%	-11%
Total SWFWMD	599,040	35,582	659,579	39,135	715,580	42,601	762,181	45,484	806,399	48,249	846,814	50,921	41%	43%
CFWI DSS Total	2,933,915	185,897	3,279,769	186,922	3,612,912	195,644	3,898,356	204,558	4,147,534	211,651	4,373,309	217,271	49%	17%

Table A-2. Water use for 2015, 5-in-10 year total water demand projections for 2020-2040, and 1-in-10 year demand projections for 2040 by category of use for the CFWI Planning Area.

District/ Category of Use	Water Use			Demand Projections (5-in-10)															Percent Change 2015 -	Demand Projections (1-in-10)		
				2015			2020			2025			2030			2035				2040		
	Ground	Surface	Total	Ground	Surface	Total	Ground	Surface	Total	Ground	Surface	Total	Ground	Surface	Total	Ground	Surface	Total	2040	Ground	Surface	Total
Public Water Supply Total																						
SFWMD	74.54	0.00	74.54	130.75	0.13	130.88	147.43	1.09	148.52	162.40	2.16	164.56	178.56	3.06	181.62	191.54	3.75	195.29	162%	203.03	3.98	207.01
SJRWMD	246.82	0.00	246.82	229.90	8.87	238.77	254.96	8.87	263.83	269.68	10.37	280.05	280.59	11.37	291.96	289.96	12.37	302.33	22%	308.10	12.37	320.47
SWFWMD	64.61	0.00	64.61	73.82	0.00	73.82	80.08	0.00	80.08	85.25	0.00	85.25	90.23	0.00	90.23	94.66	0.00	94.66	47%	100.35	0.00	100.35
CFWI Total	385.97	0.00	385.97	434.47	9.00	443.47	482.47	9.96	492.43	517.33	12.53	529.86	549.38	14.43	563.81	576.16	16.12	592.28	53%	611.48	16.35	627.83
Domestic Self-supply and Small Public Water Supply Total																						
SFWMD	7.34	0.00	7.34	7.73	0.00	7.73	8.38	0.00	8.38	9.23	0.00	9.23	9.82	0.00	9.82	10.29	0.00	10.29	40%	10.87	0.00	10.87
SJRWMD	11.18	0.00	11.18	10.30	0.00	10.30	10.23	0.00	10.23	10.10	0.00	10.10	10.01	0.00	10.01	9.84	0.00	9.84	-12%	10.39	0.00	10.39
SWFWMD	3.04	0.00	3.04	3.41	0.00	3.41	3.71	0.00	3.71	3.97	0.00	3.97	4.21	0.00	4.21	4.46	0.00	4.46	47%	4.64	0.00	4.64
CFWI Total	21.56	0.00	21.56	21.44	0.00	21.44	22.32	0.00	22.32	23.30	0.00	23.30	24.04	0.00	24.04	24.59	0.00	24.59	14%	25.90	0.00	25.90
Agricultural Irrigation Self-supply Total																						
SFWMD	22.48	3.00	25.48	22.79	3.04	25.83	23.34	3.11	26.45	24.07	3.20	27.27	24.82	3.30	28.12	25.85	3.42	29.27	15%	33.59	4.43	38.02
SJRWMD	40.87	10.53	51.40	39.34	10.51	49.85	39.95	10.51	50.46	40.57	10.51	51.08	41.18	10.50	51.68	41.48	10.46	52.04	1%	48.74	10.84	59.68
SWFWMD	79.94	2.56	82.50	78.98	2.53	81.51	78.47	2.51	80.98	78.79	2.52	81.31	79.37	2.55	81.92	79.63	2.55	82.18	0%	116.69	3.74	120.43
CFWI Total	143.29	16.09	159.38	141.11	16.08	157.19	141.76	16.13	157.89	143.43	16.23	159.66	145.37	16.35	161.72	146.96	16.43	163.49	3%	199.02	19.01	218.13
Landscape/Recreational Self-supply Total																						
SFWMD	13.02	6.75	19.77	13.80	7.16	20.96	14.55	7.57	22.12	15.31	7.97	23.28	16.05	8.38	24.43	16.74	8.78	25.52	29%	20.68	10.88	31.56
SJRWMD	3.93	7.33	11.26	4.05	7.55	11.60	4.16	7.75	11.91	4.24	7.91	12.15	4.30	8.04	12.34	4.35	8.16	12.51	11%	5.30	9.95	15.25
SWFWMD	5.93	1.28	7.21	6.28	1.35	7.63	6.60	1.42	8.02	6.86	1.48	8.34	7.11	1.54	8.65	7.34	1.59	8.93	24%	9.92	2.14	12.06
CFWI Total	22.88	15.36	38.24	24.13	16.06	40.19	25.31	16.74	42.05	26.41	17.36	43.77	27.46	17.96	45.42	28.43	18.53	46.96	23%	35.90	22.97	58.87
Commercial/Industrial/Institutional Self-supply Total																						
SFWMD	3.09	0.00	3.09	3.65	0.00	3.65	4.19	0.00	4.19	4.73	0.00	4.73	5.31	0.00	5.31	5.87	0.00	5.87	90%	5.87	0.00	5.87
SJRWMD	6.68	0.53	7.21	7.59	0.61	8.20	8.41	0.68	9.09	9.02	0.73	9.75	9.48	0.77	10.25	9.91	0.81	10.72	49%	9.91	0.81	10.72
SWFWMD	42.81	0.39	43.20	49.65	0.45	50.10	50.01	0.45	50.46	53.96	0.49	54.45	51.73	0.47	52.20	51.94	0.47	52.41	21%	51.94	0.47	52.41
CFWI Total	52.58	0.92	53.50	60.89	1.06	61.95	62.61	1.13	63.74	67.71	1.22	68.93	66.52	1.24	67.76	67.72	1.28	69.00	29%	67.72	1.28	69.00
Power Generation Self-supply Total																						
SFWMD	0.12	0.00	0.12	0.14	0.00	0.14	0.14	0.00	0.14	0.14	0.00	0.14	0.14	0.00	0.14	0.14	0.00	0.14	17%	0.14	0.00	0.14
SJRWMD	0.73	0.00	0.73	0.90	0.00	0.90	0.90	0.00	0.90	0.90	0.00	0.90	0.90	0.00	0.90	0.90	0.00	0.90	23%	0.90	0.00	0.90
SWFWMD	7.62	0.00	7.62	9.96	0.00	9.96	10.02	0.00	10.02	10.09	0.00	10.09	10.15	0.00	10.15	10.23	0.00	10.23	34%	10.23	0.00	10.23
CFWI Total	8.47	0.00	8.47	11.00	0.00	11.00	11.06	0.00	11.06	11.13	0.00	11.13	11.19	0.00	11.19	11.27	0.00	11.27	33%	11.27	0.00	11.27
Total Water Use																						
SFWMD Total	120.59	9.75	130.34	178.86	10.33	189.19	198.03	11.77	209.80	215.88	13.33	229.21	234.70	14.74	249.44	250.43	15.95	266.38	104%	274.18	19.29	293.47
SJRWMD Total	310.21	18.39	328.60	292.08	27.54	319.62	318.61	27.81	346.42	334.51	29.52	364.03	346.46	30.68	377.14	356.44	31.80	388.34	18%	383.34	33.97	417.41
SWFWMD Total	203.95	4.23	208.18	222.10	4.33	226.43	228.89	4.38	233.27	238.92	4.49	243.41	242.80	4.56	247.36	248.26	4.61	252.87	21%	293.77	6.35	300.12
CFWI Total	634.75	32.37	667.12	693.04	42.20	735.24	745.53	43.96	789.49	789.31	47.34	836.65	823.96	49.98	873.94	855.13	52.36	907.59	36%	951.29	59.61	1,011.00

Notes:

All water use is shown in million gallons per day (mgd).
Rounding errors account for nominal discrepancies.

Table A-3. Total water use for 2015, and 5-in-10 year water demand projections for 2020-2040, and 1-in-10 year water demand projections for 2040 by county for the CFWI Planning Area.

County/District	Water Use			Demand Projections (5-in-10)															Percent Change 2015 - 2040	Demand Projections (1-in-10)		
	2015			2020			2025			2030			2035			2040				2040		
	Ground	Surface	Total	Ground	Surface	Total	Ground	Surface	Total	Ground	Surface	Total	Ground	Surface	Total	Ground	Surface	Total		Ground	Surface	Total
City of Cocoa (SJRWMD)																						
City of Cocoa Total	22.94	0.00	22.94	16.30	8.83	25.13	21.08	8.83	29.91	21.99	8.83	30.82	22.66	8.83	31.49	23.28	8.83	32.11	40%	25.21	8.83	34.04
Lake County (SJRWMD & SWFWMD)																						
SJRWMD	37.20	5.19	42.39	40.06	5.30	45.36	42.95	5.40	48.35	44.69	5.47	50.16	45.93	5.52	51.45	46.89	5.56	52.45	24%	52.44	6.43	58.87
SWFWMD	0.81	0.00	0.81	0.85	0.00	0.85	0.82	0.00	0.82	0.88	0.00	0.88	0.83	0.00	0.83	0.88	0.00	0.88	9%	1.14	0.00	1.14
Lake Total	38.01	5.19	43.20	40.91	5.30	46.21	43.77	5.40	49.17	45.57	5.47	51.04	46.76	5.52	52.28	47.77	5.56	53.33	23%	53.58	6.43	60.01
Orange County (SFWM & SJRWMD)																						
SFWM	49.54	3.66	53.20	95.95	3.86	99.81	105.96	4.06	110.02	115.14	4.26	119.40	127.25	4.52	131.77	137.10	4.78	141.88	167%	147.05	6.07	153.12
SJRWMD	173.28	2.05	175.33	155.77	2.17	157.94	169.91	2.26	172.17	180.49	2.32	182.81	187.62	2.37	189.99	193.59	2.41	196.00	12%	207.24	3.12	210.36
Orange Total	222.82	5.71	228.53	251.72	6.03	257.75	275.87	6.32	282.19	295.63	6.58	302.21	314.87	6.89	321.76	330.69	7.19	337.88	48%	354.29	9.19	363.48
Osceola County (SFWM & SJRWMD)																						
SFWM	58.87	4.49	63.36	71.44	4.84	76.28	80.10	6.05	86.15	88.25	7.38	95.63	94.65	8.52	103.17	100.10	9.44	109.54	73%	112.29	11.20	123.49
SJRWMD	18.44	9.76	28.20	18.32	9.78	28.10	19.93	9.80	29.73	21.35	9.83	31.18	22.77	9.84	32.61	24.10	9.84	34.04	21%	25.20	10.00	35.30
Osceola Total	77.31	14.25	91.56	89.76	14.62	104.38	100.03	15.85	115.88	109.60	17.21	126.81	117.42	18.36	135.78	124.20	19.28	143.58	57%	137.49	21.20	158.79
Polk County (SFWM & SWFWMD)																						
SFWM	12.18	1.60	13.78	11.47	1.63	13.10	11.97	1.66	13.63	12.49	1.69	14.18	12.80	1.70	14.50	13.23	1.73	14.96	9%	14.84	2.02	16.86
SWFWMD	203.14	4.23	207.37	221.25	4.33	225.58	228.07	4.38	232.45	238.04	4.49	242.53	241.97	4.56	246.53	247.38	4.61	251.99	22%	292.63	6.35	298.98
Polk Total	215.32	5.83	221.15	232.72	5.96	238.68	240.04	6.04	246.08	250.53	6.18	256.71	254.77	6.26	261.03	260.61	6.34	266.95	21%	307.47	8.37	315.84
Seminole County (SJRWMD)																						
Seminole Total	58.35	1.39	59.74	61.63	1.46	63.09	64.74	1.52	66.26	65.99	3.07	69.06	67.48	4.12	71.60	68.58	5.16	73.74	23%	73.25	5.59	78.84
Total Water Use																						
SFWM Total	120.59	9.75	130.34	178.86	10.33	189.19	198.03	11.77	209.80	215.88	13.33	229.21	234.70	14.74	249.44	250.43	15.95	266.38	104%	274.18	19.29	293.47
SJRWMD Total	310.21	18.39	328.60	292.08	27.54	319.62	318.61	27.81	346.42	334.51	29.52	364.03	346.46	30.68	377.14	356.44	31.80	388.34	18%	383.34	33.97	417.41
SWFWMD Total	203.95	4.23	208.18	222.10	4.33	226.43	228.89	4.38	233.27	238.92	4.49	243.41	242.80	4.56	247.36	248.26	4.61	252.87	21%	293.77	6.35	300.12
CFWI Total	634.75	32.37	667.12	693.04	42.20	735.24	745.53	43.96	789.49	789.31	47.34	836.65	823.96	49.98	873.94	855.13	52.36	907.59	36%	951.29	59.61	1,011.00

Notes:

All water use is shown in million gallons per day (mgd).
Rounding errors account for nominal discrepancies.

Table A-4a. Public supply population served, and water use for 2015, and 5-in-10 year water demand projections for 2020-2040, and 1-in-10 year water demand projections for 2040 by county for the CFWI Planning Area: Population values.

County/District	Population Served	Population Projections				
	2015	2020	2025	2030	2035	2040
City of Cocoa (SJRWMD)						
City of Cocoa Total	178,704	190,375	199,285	206,178	211,309	215,987
Lake County (SJRWMD & SWFWMD)						
SJRWMD	106,058	129,987	146,730	158,712	168,302	177,652
SWFWMD	0	0	0	0	0	0
Lake CFWI Total	106,058	129,987	146,730	158,712	168,302	177,652
Orange County (SFWMD & SJRWMD)						
SFWMD	318,050	368,998	415,301	461,753	519,882	580,108
SJRWMD	814,256	916,557	1,018,464	1,095,125	1,148,148	1,192,653
Orange Total	1,132,306	1,285,555	1,433,765	1,556,878	1,668,030	1,772,761
Osceola County (SFWMD & SJRWMD)						
SFWMD	305,735	369,320	435,930	499,658	550,104	592,225
SJRWMD	225	232	239	245	251	256
Osceola Total	305,960	369,552	436,169	499,903	550,355	592,481
Polk County (SFWMD & SWFWMD)						
SFWMD	27,317	30,173	32,133	33,982	35,727	37,302
SWFWMD	563,458	620,444	672,979	716,697	758,150	795,893
Polk Total	590,775	650,617	705,112	750,679	793,877	833,195
Seminole County (SJRWMD)						
Seminole Total	434,215	466,761	496,207	521,448	544,010	563,962
2020-2040 Population Projections by District						
SFWMD Total	651,102	768,491	883,364	995,393	1,105,713	1,209,635
SJRWMD Total	1,533,458	1,703,912	1,860,925	1,981,708	2,072,020	2,150,510
SWFWMD Total	563,458	620,444	672,979	716,697	758,150	795,893
CFWI Total	2,748,018	3,092,847	3,417,268	3,693,798	3,935,883	4,156,038

Notes:

All water use is shown in million gallons per day (mgd).

Rounding errors account for nominal discrepancies.

Table A-4b. Public supply population served and water use for 2015, and 5-in-10 year water demand projections for 2020-2040, and 1-in-10 year water demand projections for 2040 by county for the CFWI Planning Area: Demand values.

County/ District	Water Use			Demand Projections (5-in-10)															Percent Change 2015 - 2040	Demand Projections (1-in-10)		
	2015			2020			2025			2030			2035			2040				2040		
	Ground	Surface	Total	Ground	Surface	Total	Ground	Surface	Total	Ground	Surface	Total	Ground	Surface	Total	Ground	Surface	Total		Ground	Surface	Total
City of Cocoa (SJRWMD)																						
City of Cocoa Total	22.94	0.00	22.94	16.30	8.83	25.13	21.08	8.83	29.91	21.99	8.83	30.82	22.66	8.83	31.49	23.28	8.83	32.11	40%	25.21	8.83	34.04
Lake County (SJRWMD & SWFWMD)																						
SJRWMD	16.86	0.00	16.86	20.54	0.00	20.54	23.34	0.00	23.34	25.23	0.00	25.23	26.71	0.00	26.71	28.16	0.00	28.16	67%	29.85	0.00	29.85
SWFWMD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00
CFWI Total	16.86	0.00	16.86	20.54	0.00	20.54	23.34	0.00	23.34	25.23	0.00	25.23	26.71	0.00	26.71	28.16	0.00	28.16	67%	29.85	0.00	29.85
Orange County (SFWM & SJRWMD)																						
SFWM	34.73	0.00	34.73	80.36	0.00	80.36	89.56	0.00	89.56	97.72	0.00	97.72	108.74	0.00	108.74	117.52	0.00	117.52	238%	124.57	0.00	124.57
SJRWMD	153.23	0.00	153.23	135.72	0.04	135.76	149.62	0.04	149.66	159.99	0.04	160.03	167.01	0.04	167.05	172.92	0.04	172.96	13%	183.30	0.04	183.34
CFWI Total	187.96	0.00	187.96	216.08	0.04	216.12	239.18	0.04	239.22	257.71	0.04	257.75	275.75	0.04	275.79	290.44	0.04	290.48	55%	307.87	0.04	307.91
Osceola County (SFWM & SJRWMD)																						
SFWM	34.68	0.00	34.68	46.23	0.13	46.36	53.45	1.09	54.54	59.98	2.16	62.14	64.89	3.06	67.95	68.87	3.75	72.62	109%	73.00	3.98	76.98
SJRWMD	0.13	0.00	0.13	0.05	0.00	0.05	0.05	0.00	0.05	0.05	0.00	0.05	0.05	0.00	0.05	0.05	0.00	0.05	-62%	0.05	0.00	0.05
CFWI Total	34.81	0.00	34.81	46.28	0.13	46.41	53.50	1.09	54.59	60.03	2.16	62.19	64.94	3.06	68.00	68.92	3.75	72.67	109%	73.05	3.98	77.03
Polk County (SFWM & SWFWMD)																						
SFWM	5.13	0.00	5.13	4.16	0.00	4.16	4.42	0.00	4.42	4.70	0.00	4.70	4.93	0.00	4.93	5.15	0.00	5.15	0%	5.46	0.00	5.46
SWFWMD	64.61	0.00	64.61	73.82	0.00	73.82	80.08	0.00	80.08	85.25	0.00	85.25	90.23	0.00	90.23	94.66	0.00	94.66	47%	100.35	0.00	100.35
CFWI Total	69.74	0.00	69.74	77.98	0.00	77.98	84.50	0.00	84.50	89.95	0.00	89.95	95.16	0.00	95.16	99.81	0.00	99.81	43%	105.81	0.00	105.81
Seminole County (SJRWMD)																						
SJRWMD	53.66	0.00	53.66	57.29	0.00	57.29	60.87	0.00	60.87	62.42	1.50	63.92	64.16	2.50	66.66	65.55	3.50	69.05	29%	69.69	3.50	73.19
Total Water Use and Demand Projections																						
SFWM Total	74.54	0.00	74.54	130.75	0.13	130.88	147.43	1.09	148.52	162.40	2.16	164.56	178.56	3.06	181.62	191.54	3.75	195.29	162%	203.03	3.98	207.01
SJRWMD Total	246.82	0.00	246.82	299.90	8.87	238.77	254.96	8.87	263.83	269.68	10.37	280.05	280.59	11.37	291.96	289.96	12.37	302.33	22%	308.10	12.37	320.47
SWFWMD Total	64.61	0.00	64.61	73.82	0.00	73.82	80.08	0.00	80.08	85.25	0.00	85.25	90.23	0.00	90.23	94.66	0.00	94.66	47%	100.35	0.00	100.35
CFWI Total	385.97	0.00	385.97	434.47	9.00	443.47	482.47	9.96	492.43	517.33	12.53	529.86	549.38	14.43	563.81	576.16	16.12	592.28	53%	611.48	16.35	627.83

Notes:
All water use is shown in million gallons per day (mgd).
Rounding errors account for nominal discrepancies.

Table A-5a. Public supply population served by county and utility for 2015, public supply population projections for 2020-2040, and percent population change from 2015-2040 in the CFWI Planning Area.

County/District	Utility	CUP Number	Population Served	Public Supply Population Projections					Buildout	Population Percent Change 2015-2040
			2015	2020	2025	2030	2035	2040		
City of Cocoa	City of Cocoa	50245	178,704	190,375	199,285	206,178	211,309	215,987	301,530	21%
Lake (CFWI) - SJRWMD	Southlake Utilities Inc.	2392	7,044	8,387	9,643	10,890	12,183	13,462	28,335	91%
	City of Mascotte	2453	4,825	8,148	9,291	10,401	11,532	12,651	53,476	162%
	City of Clermont	2478	33,914	42,630	47,582	51,031	52,273	53,459	62,920	58%
	Thousand Trails	2531	1,420	1,406	1,417	1,428	1,438	1,448	1,594	2%
	Town of Montverde	2671	2,275	2,590	2,711	2,822	2,915	3,014	5,314	32%
	Lake Utility Services Inc.	2700	23,150	27,578	32,500	34,383	36,019	37,590	51,991	62%
	City of Groveland	2796, 2913	16,315	19,660	21,808	23,890	26,008	28,085	80,934	72%
	Woodlands Church Lake LLC	2840	669	661	665	669	672	675	751	1%
	City of Minneola	2886	13,453	15,809	17,789	19,666	21,498	23,267	49,337	73%
	Ginn La Pine Island LTD LLLP	2900	17	32	54	79	114	152	778	794%
	Clerbrook Golf & RV Resort	6398	2,747	2,714	2,730	2,744	2,758	2,772	3,084	1%
	Ginn Pine Island II LLLP	50115	96	236	402	569	749	931	7,379	870%
	Colina Bay Water Company	103822	133	136	138	140	143	146	185	10%
SJRWMD Lake (CFWI) Total			106,058	129,987	146,730	158,712	168,302	177,652	346,078	68%
Orange - SFWMD	Orlando Utilities Commission	3159	191,040	213,730	233,307	252,492	278,429	292,334	292,680	53%
	Orange County Public Utilities	48-00134-W, 48-00059-W	124,287	152,312	178,744	205,857	238,028	284,347	308,017	129%
	Reedy Creek Improvement District	48-00009-W	0	0	0	0	0	0	0	N/A
	Taft Water Association	48-00995-W	2,723	2,956	3,250	3,404	3,425	3,427	3,427	26%
	SFWMD Orange Total			318,050	368,998	415,301	461,753	519,882	580,108	604,124
Orange - SJRWMD	ECFS		0	2,563	4,936	7,188	10,142	24,301	95,657	N/A
	Orlando Utilities Commission	3159	234,860	250,956	262,505	270,564	273,261	273,914	273,933	17%
	Clarcona Resorts Condominium Association	3203	1,454	1,570	1,927	2,111	2,135	2,138	2,138	47%
	City of Ocoee	3216	31,725	37,568	44,120	47,393	47,741	47,775	47,775	51%
	City of Apopka	3217	68,695	81,276	101,329	122,638	132,019	134,167	134,200	95%
	Zellwood Water Users Inc.	3301	819	909	1,263	1,457	1,483	1,489	1,489	82%
	Wedgfield Utilities Inc.	3302	4,346	4,418	4,521	4,965	5,025	5,037	5,037	16%
	Orange County Public Utilities	3317	339,622	390,975	435,381	465,162	500,169	527,452	587,927	55%
	Town of Oakland	3347	3,477	4,141	5,329	6,625	6,776	6,776	6,776	95%
	City of Winter Garden	3368	43,397	53,304	64,673	71,368	73,175	73,262	73,264	69%
	Rock Springs Palm Isles MHC LLC	3383	1,956	1,976	2,001	2,093	2,105	2,107	2,107	8%
	Town of Eatonville	3407	2,324	2,501	2,658	2,701	2,702	2,702	2,702	16%
	City of Winter Park	7624	65,594	67,345	68,738	69,312	69,377	69,393	69,394	6%
	City of Maitland	50258	11,990	12,581	12,947	13,008	13,016	13,019	13,019	9%
	Aqua Utilities Florida, Inc.	51073	2,449	2,922	4,584	6,988	7,470	7,569	7,571	209%
	Starlight Ranch MHC	86536	326	327	327	327	327	327	327	0%
	Sun Communities Inc	92244	1,222	1,225	1,225	1,225	1,225	1,225	1,225	0%
SJRWMD Orange Total			814,256	916,557	1,018,464	1,095,125	1,148,148	1,192,653	1,324,541	46%

Table A-5a. Public supply population served by county and utility for 2015, public supply population projections for 2020-2040, and percent population change from 2015-2040 in the CFWI Planning Area (continued).

County/District	Utility	CUP Number	Population Served	Public Supply Population Projections					Buildout	Population Percent Change 2015-2040
			2015	2020	2025	2030	2035	2040		
Total – OUC/OCU	Orlando Utilities Commission	3159	425,900	464,686	495,812	523,056	551,690	566,248	566,613	33%
	Orange County Public Utilities	3317	463,909	543,287	614,125	671,019	738,197	811,799	895,944	75%
Osceola - SFWMD	TWA / ECFS	49-00103-W	0	945	7,830	15,525	22,005	27,000	27,000	N/A
	St. Cloud Utility	49-00084-W	66,231	82,923	101,791	123,767	144,784	165,570	238,697	150%
	Tohopekalgiga Water Authority	49-00103-W	231,865	276,533	317,018	351,075	374,024	390,364	451,230	68%
	Pleasant Hill	49-00812-W	600	600	600	600	600	600	600	0%
	Pleasant Hill Lakes	49-01207-W	6,542	7,822	8,194	8,194	8,194	8,194	8,194	25%
	Tropical Palms Resort	49-01268-W	146	146	146	146	146	146	146	0%
	The Floridan RV Resort	49-01945-W	351	351	351	351	351	351	351	0%
	SFWMD Osceola Total		305,735	369,320	435,930	499,658	550,104	592,225	726,218	94%
Osceola - SJRWMD	East Central FLA Services Inc	3426	225	225	225	225	225	225	191,383	0%
	Tohopekalgiga Water Authority	49-00103-W	0	7	14	20	26	31	1,007	N/A
	SJRWMD Osceola Total		225	232	239	245	251	256	192,390	14%
Polk - SFWMD	Toho Water Authority (Poinciana)	49-00103-W	24,890	27,631	29,508	31,277	32,942	34,440	37,329	38%
	River Ranch	53-00026-W	652	676	692	707	722	736	3,844	13%
	Lake Wales Utility Company	53-00030-W	1,510	1,586	1,643	1,697	1,752	1,805	4,709	20%
	Polk County Utilities (Oak Hills)	53-00126-W	265	280	290	301	311	321	1,634	21%
	SFWMD Polk Total		27,317	30,173	32,133	33,982	35,727	37,302	41,173	37%
Polk - SWFWMD	City of Bartow	341	24,706	26,835	28,744	30,461	32,227	33,843	74,423	37%
	Lelynn RV Resort	587	317	320	320	320	320	320	320	1%
	City of Fort Meade	645	7,818	8,121	8,509	8,865	9,283	9,725	36,707	24%
	Lake Region Mobile Home Owners	1616	916	937	946	953	962	972	1,006	6%
	Four Lakes Golf Club	1625	1,170	1,183	1,183	1,183	1,183	1,183	1,183	1%
	Lake Hamilton	2332	1,262	1,348	1,461	1,561	1,685	1,816	2,348	44%
	Orchid Springs Development Corp	3415	943	959	963	965	965	965	965	2%
	Park Water Company	4005	3,439	3,766	4,080	4,370	4,660	4,933	9,163	43%
	City of Winter Haven	4607	73,604	80,157	85,774	90,112	94,361	98,053	136,944	33%
	City of Lake Wales	4658	23,542	25,808	28,368	30,691	33,289	35,954	96,450	53%
	City of Lakeland Electric & Water	4912	165,037	177,109	187,746	195,476	203,077	210,204	270,222	27%
	Greenelefe Resort Utility, Inc.	5251	2,580	2,611	2,617	2,622	2,628	2,635	2,661	2%
	City of Davenport	5750	6,218	7,361	8,391	9,318	10,373	11,444	24,704	84%
	City of Frostproof	5870	3,861	4,138	4,400	4,642	4,917	5,201	14,803	35%
	Town of Dundee	5893	4,862	5,583	6,421	7,183	8,046	8,932	33,978	84%
	North Pointe HOA	6023	144	146	146	146	146	146	146	1%
	City of Mulberry	6124	4,290	4,589	4,903	5,189	5,496	5,798	8,594	35%
	Saddlebag Lake Resort	6174	684	698	699	699	699	699	779	2%
	Polk County Utilities - NWRSA	6505	42,656	47,790	52,459	56,512	60,013	63,016	78,147	48%
	Polk County Utilities - SWRSA	6506	42,610	48,255	52,691	56,260	58,173	60,010	72,249	41%
Polk County Utilities - CRSA	6507	15,593	17,042	18,662	20,131	21,707	23,165	39,094	49%	
Polk County Utilities - SERSA	6508	6,143	6,382	6,615	6,829	7,063	7,298	14,950	19%	

Table A-5a. Public supply population served by county and utility for 2015, public supply population projections for 2020-2040, and percent population change from 2015-2040 in the CFWI Planning Area (continued).

County/District	Utility	CUP Number	Population Served	Public Supply Population Projections					Buildout	Population Percent Change 2015-2040
			2015	2020	2025	2030	2035	2040		
Polk – SWFWMD (continued)	Polk County Utilities - NERSA	6509	35,936	42,371	47,775	52,154	55,877	58,544	97,999	63%
	City of Lake Alfred	6624	8,663	10,018	11,005	11,903	12,800	13,637	25,043	57%
	City of Eagle Lake	6920	4,447	5,002	6,008	6,912	7,997	9,140	16,478	106%
	City of Auburndale	7119	33,529	36,795	40,058	42,950	45,881	48,670	73,481	45%
	CHCVII Lake Henry MHP	7187	1,249	1,263	1,263	1,263	1,263	1,263	1,263	1%
	Carefree RV Country Club	7328	876	894	895	896	897	899	902	3%
	Aqua Utilities Florida, Inc. - Lake Gibson	7878	1,898	1,993	2,045	2,050	2,050	2,050	2,050	8%
	Polk County Utilities - ERSA	8054	6,525	7,828	9,101	10,294	11,060	11,448	23,892	75%
	CHCIII Swift Village MHP	8344	923	947	954	961	968	973	841	5%
	City of Polk City	8468	7,614	8,365	9,203	9,950	10,747	11,514	20,961	51%
	City of Haines City	8522	26,020	29,716	33,796	37,462	41,303	44,820	91,154	72%
	Sweetwater Community LLC	8967	525	532	532	533	533	533	533	2%
	Ovation Water Production Facility	10141	1	1	1	1	1	1	1	0%
	Alafia Preserve LLC; Eagle Ridge LLC; and Donaldson	12964	79	747	1,398	2,022	2,630	3,207	13,322	3959%
	Utilities, Inc - Cypress Lakes Utilities Inc.	13043	2,778	2,834	2,847	2,858	2,870	2,882	3,040	4%
SWFWMD Polk Total			563,458	620,444	672,979	716,697	758,150	795,893	1,290,796	41%
Seminole – SIRWMD	Sanlando Utilities Corp.	160	35,640	35,933	36,793	37,814	38,560	39,271	40,443	10%
	City of Sanford	162	66,191	70,946	77,913	84,600	91,484	97,842	123,658	48%
	Seminole County Environmental Services	8213, 8356, 8359, 8361, 95581	119,950	132,084	143,192	152,537	162,063	170,339	191,594	42%
	City of Winter Springs	8238	34,910	38,136	39,689	40,453	41,301	42,032	43,940	20%
	City of Oviedo	8252	36,704	38,780	41,199	43,235	44,591	45,536	46,924	24%
	Palm Valley Manufactured Home Community	8266	2,196	2,196	2,196	2,196	2,196	2,196	2,196	0%
	Mullet Lake Water Association Inc	8271	784	829	864	894	923	950	2,641	21%
	City of Longwood	8274	13,192	14,747	15,720	16,624	16,863	17,009	17,164	29%
	City of Lake Mary	8282	14,848	16,757	17,467	17,863	17,927	17,927	17,927	21%
	City of Casselberry	8284	46,915	47,851	48,616	49,092	49,197	49,258	49,338	5%
	Utilities Inc. of Florida	8345	522	522	522	522	522	522	523	0%
	Utilities Inc. of Florida	8346	2,612	2,608	2,615	2,619	2,619	2,619	2,620	0%
	Utilities Inc. of Florida	8352	919	922	941	959	964	969	971	5%
	FGUA	8362	4,984	5,381	5,745	5,895	6,275	6,624	7,474	33%

Table A-5a. Public supply population served by county and utility for 2015, public supply population projections for 2020-2040, and percent population change from 2015-2040 in the CFWI Planning Area (continued).

County/District	Utility	CUP Number	Population Served	Public Supply Population Projections					Buildout	Population Percent Change 2015-2040
			2015	2020	2025	2030	2035	2040		
Seminole – SJRWMD (continued)	City of Altamonte Springs	3766	521	521	521	522	523	523	524	0%
	City of Altamonte Springs	3769	53	53	53	53	53	53	53	0%
	City of Altamonte Springs	8372	48,255	53,379	57,012	60,389	62,759	65,098	65,500	35%
	City of Altamonte Springs	50281	5,019	5,116	5,149	5,181	5,190	5,194	5,199	3%
	City of Altamonte Springs	Total	53,848	59,069	62,735	66,145	68,525	70,868	71,276	32%
SJRWMD Seminole Total			434,215	466,761	496,207	521,448	544,010	563,962	618,689	30%
Total SFWMD			651,102	768,491	883,364	995,393	1,105,713	1,209,635	1,371,515	86%
Total SJRWMD			1,533,458	1,703,912	1,860,925	1,981,708	2,072,020	2,150,510	2,783,228	40%
Total SWFWMD			563,458	620,444	672,979	716,697	758,150	795,893	1,290,796	41%
CFWI Total			2,748,018	3,092,847	3,417,268	3,693,798	3,935,883	4,156,038	5,445,539	51%

Table A-5b. Public supply water use by water source for 2015, 5-in-10 year water demand projections for 2020-2040, and 1-in-10 year water demand projections for 2040 by county and utility in the CFWI Planning Area.

County/District	Utility	Water use			Demand Projections (5-in-10)															Percent Demand Change 2015-2040	2011-2015 Avg Gross GPCD	Demand Projections (1-in-10)		
		2015			2020			2025			2030			2035			2040					2040		
		GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total			GW	SW	Total
City of Cocoa - SJRWMD	City of Cocoa	22.94	0.00	22.94	16.30	8.83	25.13	21.08	8.83	29.91	21.99	8.83	30.82	22.66	8.83	31.49	23.28	8.83	32.11	40%	132	25.21	8.83	34.04
Lake (CFWI) - SJRWMD	Southlake Utilities Inc.	1.65	0.00	1.65	1.92	0.00	1.92	2.21	0.00	2.21	2.49	0.00	2.49	2.79	0.00	2.79	3.08	0.00	1.65	87%	229	3.26	0.00	3.26
	City of Mascotte	0.36	0.00	0.36	0.62	0.00	0.62	0.71	0.00	0.71	0.79	0.00	0.79	0.88	0.00	0.88	0.96	0.00	0.96	167%	76	1.02	0.00	1.02
	City of Clermont	5.44	0.00	5.44	7.33	0.00	7.33	8.18	0.00	8.18	8.78	0.00	8.78	8.99	0.00	8.99	9.19	0.00	9.19	69%	172	9.74	0.00	9.74
	Thousand Trails	0.21	0.00	0.21	0.17	0.00	0.17	0.17	0.00	0.17	0.17	0.00	0.17	0.17	0.00	0.17	0.17	0.00	0.17	-19%	118	0.18	0.00	0.18
	Town of Montverde	0.19	0.00	0.19	0.22	0.00	0.22	0.23	0.00	0.23	0.24	0.00	0.24	0.24	0.00	0.24	0.25	0.00	0.25	32%	84	0.27	0.00	0.27
	Lake Utility Services Inc.	4.38	0.00	4.38	5.60	0.00	5.60	6.60	0.00	6.60	6.98	0.00	6.98	7.31	0.00	7.31	7.63	0.00	7.63	74%	203	8.09	0.00	8.09
	City of Groveland	2.34	0.00	2.34	2.38	0.00	2.38	2.64	0.00	2.64	2.89	0.00	2.89	3.15	0.00	3.15	3.40	0.00	3.40	45%	121	3.60	0.00	3.60
	Woodlands Church Lake LLC	0.06	0.00	0.06	0.11	0.00	0.11	0.11	0.00	0.11	0.11	0.00	0.11	0.11	0.00	0.11	0.11	0.00	0.11	83%	162	0.12	0.00	0.12
	City of Minneola	1.65	0.00	1.65	1.91	0.00	1.91	2.15	0.00	2.15	2.38	0.00	2.38	2.60	0.00	2.60	2.82	0.00	2.82	71%	121	2.99	0.00	2.99
	Ginn La Pine Island LTD LLLP	0.12	0.00	0.12	0.01	0.00	0.01	0.01	0.00	0.01	0.01	0.00	0.01	0.02	0.00	0.02	0.03	0.00	0.03	-75%	185	0.03	0.00	0.03
	Clerbrook Golf & RV Resort	0.08	0.00	0.08	0.10	0.00	0.10	0.10	0.00	0.10	0.10	0.00	0.10	0.10	0.00	0.10	0.11	0.00	0.11	38%	38	0.12	0.00	0.12
	Ginn Pine Island II LLLP	0.21	0.00	0.21	0.08	0.00	0.08	0.13	0.00	0.13	0.19	0.00	0.19	0.25	0.00	0.25	0.31	0.00	0.31	48%	330	0.33	0.00	0.33
	Colina Bay Water Company	0.17	0.00	0.17	0.09	0.00	0.09	0.10	0.00	0.10	0.10	0.00	0.10	0.10	0.00	0.10	0.10	0.00	0.10	-41%	693	0.11	0.00	0.11
	SJRWMD Lake (CFWI) Total		16.86	0.00	16.86	20.54	8.83	20.54	23.34	8.83	23.34	25.23	8.83	25.23	26.71	8.83	26.71	28.16	8.83	28.16	67%	N/A	29.85	8.83

Table A-5b. Public supply water use by water source for 2015, 5-in-10 year water demand projections for 2020-2040, and 1-in-10 year water demand projections for 2040 by county and utility in the CFWI Planning Area (continued).

County/District	Utility	Water use			Demand Projections (5-in-10)															Percent Demand Change 2015-2040	2011-2015 Avg Gross GPCD	Demand Projections (1-in-10)		
		2015			2020			2025			2030			2035			2040					2040		
		GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total			GW	SW	Total
Orange - SFWMD	Orlando Utilities Commission	0.00	0.00	0.00	39.97	0.00	39.97	43.63	0.00	43.63	47.22	0.00	47.22	52.07	0.00	52.07	54.67	0.00	54.67	N/A	187	57.95	0.00	57.95
	Orange County Public Utilities	18.08	0.00	18.08	19.50	0.00	19.50	22.88	0.00	22.88	26.35	0.00	26.35	30.47	0.00	30.47	36.40	0.00	36.40	101%	128	38.58	0.00	38.58
	Reedy Creek Improvement District	16.31	0.00	16.31	20.60	0.00	20.60	22.73	0.00	22.73	23.82	0.00	23.82	25.87	0.00	25.87	26.12	0.00	26.12	60%	N/A	27.69	0.00	27.69
	Taft Water Association	0.34	0.00	0.34	0.29	0.00	0.29	0.32	0.00	0.32	0.33	0.00	0.33	0.33	0.00	0.33	0.33	0.00	0.33	-3%	97	0.35	0.00	0.35
	SFWMD Orange Total	34.73	0.00	34.73	80.36	0.00	80.36	89.56	0.00	89.56	97.72	0.00	97.72	108.74	0.00	108.74	117.52	0.00	117.52	238%	N/A	124.57	0.00	124.57

Table A-5b. Public supply water use by water source for 2015, 5-in-10 year water demand projections for 2020-2040, and 1-in-10 year water demand projections for 2040 by county and utility in the CFWI Planning Area (continued).

County/District	Utility	Water use			Demand Projections (5-in-10)															Percent Demand Change 2015 - 2040	2011-2015 Avg Gross GPCD	Demand Projections (1-in-10)		
		2015			2020			2025			2030			2035			2040					2040		
		GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total			GW	SW	Total
Orange - SJRWMD	ECFS	0.00	0.00	0.00	0.36	0.00	0.36	0.69	0.00	0.69	1.00	0.00	1.00	1.41	0.00	1.41	3.38	0.00	3.38	N/A	139	3.58	0.00	3.58
	Orlando Utilities Commission	81.23	0.00	81.23	46.93	0.00	46.93	49.09	0.00	49.09	50.60	0.00	50.60	51.10	0.00	51.10	51.22	0.00	51.22	-37%	187	54.29	0.00	54.29
	Clarcona Resorts Condom. Assoc	0.08	0.00	0.08	0.10	0.00	0.10	0.12	0.00	0.12	0.14	0.00	0.14	0.14	0.00	0.14	0.14	0.00	0.14	75%	64	0.15	0.00	0.15
	City of Ocoee	3.57	0.00	3.57	4.25	0.00	4.25	4.99	0.00	4.99	5.36	0.00	5.36	5.39	0.00	5.39	5.40	0.00	5.40	51%	113	5.72	0.00	5.72
	City of Apopka	9.07	0.00	9.07	11.38	0.00	11.38	14.19	0.00	14.19	17.17	0.00	17.17	18.48	0.00	18.48	18.78	0.00	18.78	107%	140	19.91	0.00	19.91
	Zellwood Water Users Inc.	0.08	0.00	0.08	0.09	0.00	0.09	0.13	0.00	0.13	0.15	0.00	0.15	0.15	0.00	0.15	0.15	0.00	0.15	88%	104	0.16	0.00	0.16
	Wedgfield Utilities Inc.	0.32	0.00	0.32	0.34	0.00	0.34	0.34	0.00	0.34	0.38	0.00	0.38	0.38	0.00	0.38	0.38	0.00	0.38	19%	76	0.40	0.00	0.40
	Orange County Public Utilities	38.16	0.00	38.16	50.04	0.00	50.04	55.73	0.00	55.73	59.54	0.00	59.54	64.02	0.00	64.02	67.51	0.00	67.51	77%	128	71.56	0.00	71.56
	Town of Oakland	0.42	0.00	0.42	0.54	0.00	0.54	0.70	0.00	0.70	0.87	0.00	0.87	0.89	0.00	0.89	0.89	0.00	0.89	112%	131	0.94	0.00	0.94
	City of Winter Garden	6.70	0.00	6.70	7.41	0.00	7.41	8.99	0.00	8.99	9.92	0.00	9.92	10.17	0.00	10.17	10.18	0.00	10.18	52%	139	10.79	0.00	10.79
	Rock Springs Palm Isles MHC LLC	0.19	0.00	0.19	0.25	0.00	0.25	0.25	0.00	0.25	0.27	0.00	0.27	0.27	0.00	0.27	0.27	0.00	0.27	42%	127	0.29	0.00	0.29
	Town of Eatonville	0.33	0.00	0.33	0.33	0.00	0.33	0.35	0.00	0.35	0.35	0.00	0.35	0.35	0.00	0.35	0.35	0.00	0.35	6%	130	0.37	0.00	0.37
	City of Winter Park	9.97	0.00	9.97	10.44	0.00	10.44	10.65	0.00	10.65	10.74	0.00	10.74	10.75	0.00	10.75	10.76	0.00	10.76	8%	155	11.41	0.00	11.41
	City of Maitland	2.71	0.00	2.71	2.95	0.04	2.99	3.04	0.04	3.08	3.06	0.04	3.10	3.06	0.04	3.10	3.06	0.04	3.10	14%	238	3.25	0.04	3.29
	Aqua Utilities Florida, Inc.	0.07	0.00	0.07	0.09	0.00	0.09	0.14	0.00	0.14	0.22	0.00	0.22	0.23	0.00	0.23	0.23	0.00	0.23	229%	31	0.24	0.00	0.24
	Starlight Ranch MHC	0.11	0.00	0.11	0.08	0.00	0.08	0.08	0.00	0.08	0.08	0.00	0.08	0.08	0.00	0.08	0.08	0.00	0.08	-27%	249	0.08	0.00	0.08
	Sun Commun. Inc	0.22	0.00	0.22	0.14	0.00	0.14	0.14	0.00	0.14	0.14	0.00	0.14	0.14	0.00	0.14	0.14	0.00	0.14	-36%	116	0.15	0.00	0.15
	SJRWMD Orange Total	153.23	0.00	153.23	135.72	0.04	135.76	149.62	0.04	149.66	159.99	0.04	160.03	167.01	0.04	167.05	172.92	0.04	172.96	13%	N/A	183.30	0.04	183.34

Table A-5b. Public supply water use by water source for 2015, 5-in-10 year water demand projections for 2020-2040, and 1-in-10 year water demand projections for 2040 by county and utility in the CFWI Planning Area (continued).

County/District	Utility	Water use			Demand Projections (5-in-10)															Percent Demand Change 2015-2040	2011-2015 Avg Gross GPCD	Demand Projections (1-in-10)		
		2015			2020			2025			2030			2035			2040					2040		
		GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total			GW	SW	Total
Total – OUC/OCU	Orlando Utilities Commission	81.23	0.00	81.23	86.90	0.00	86.90	92.72	0.00	92.72	97.82	0.00	97.82	103.17	0.00	103.17	105.89	0.00	105.89	30%	187	112.24	0.00	112.24
	Orange County Public Utilities	56.24	0.00	56.24	69.54	0.00	69.54	78.61	0.00	78.61	85.89	0.00	85.89	94.49	0.00	94.49	103.91	0.00	103.91	85%	128	110.14	0.00	110.14
Osceola - SFWMD	TWA / ECFS	0.00	0.00	0.00	0.00	0.13	0.13	0.00	1.09	1.09	0.00	2.16	2.16	0.00	3.06	3.06	0.00	3.75	3.75	N/A	139	0.00	3.98	3.98
	St. Cloud Utility	5.30	0.00	5.30	6.80	0.00	6.80	8.35	0.00	8.35	10.15	0.00	10.15	11.87	0.00	11.87	13.58	0.00	13.58	156%	82	14.39	0.00	14.39
	Tohopekaliga Water Authority	28.51	0.00	28.51	38.44	0.00	38.44	44.07	0.00	44.07	48.80	0.00	48.80	51.99	0.00	51.99	54.26	0.00	54.26	90%	139	57.52	0.00	57.52
	Pleasant Hill	0.11	0.00	0.11	0.11	0.00	0.11	0.11	0.00	0.11	0.11	0.00	0.11	0.11	0.00	0.11	0.11	0.00	0.11	0%	175	0.12	0.00	0.12
	Pleasant Hill Lakes	0.66	0.00	0.66	0.78	0.00	0.78	0.82	0.00	0.82	0.82	0.00	0.82	0.82	0.00	0.82	0.82	0.00	0.82	24%	100	0.87	0.00	0.87
	Tropical Palms Resort	0.02	0.00	0.02	0.02	0.00	0.02	0.02	0.00	0.02	0.02	0.00	0.02	0.02	0.00	0.02	0.02	0.00	0.02	0%	170	0.02	0.00	0.02
	The Floridan RV Resort	0.08	0.00	0.08	0.08	0.00	0.08	0.08	0.00	0.08	0.08	0.00	0.08	0.08	0.00	0.08	0.08	0.00	0.08	0%	241	0.08	0.00	0.08
	SFWMD Osceola Total	34.68	0.00	34.68	46.23	0.13	46.36	53.45	1.09	54.54	59.98	2.16	62.14	64.89	3.06	67.95	68.87	3.75	72.62	109%	N/A	73.00	3.98	76.98
Osceola - SJRWMD	East Central FLA Services Inc	0.13	0.00	0.13	0.05	0.00	0.05	0.05	0.00	0.05	0.05	0.00	0.05	0.05	0.00	0.05	0.05	0.00	0.05	-62%	216	0.05	0.00	0.05
	Tohopekaliga Water Authority	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	139	0.00	0.00	0.00
	SJRWMD Osceola Total	0.13	0.00	0.13	0.05	0.00	0.05	0.05	0.00	0.05	0.05	0.00	0.05	0.05	0.00	0.05	0.05	0.00	0.05	-62%	N/A	0.05	0.00	0.05
Polk - SFWMD	Toho Water Authority (Poinciana)	4.73	0.00	4.73	3.84	0.00	3.84	4.10	0.00	4.10	4.35	0.00	4.35	4.58	0.00	4.58	4.79	0.00	4.79	1%	139	5.08	0.00	5.08
	River Ranch	0.17	0.00	0.17	0.18	0.00	0.18	0.18	0.00	0.18	0.19	0.00	0.19	0.19	0.00	0.19	0.20	0.00	0.20	18%	267	0.21	0.00	0.21
	Lake Wales Utility Company	0.09	0.00	0.09	0.09	0.00	0.09	0.09	0.00	0.09	0.10	0.00	0.10	0.10	0.00	0.10	0.10	0.00	0.10	11%	57	0.11	0.00	0.11
	Polk County Utilities (Oak Hills)	0.14	0.00	0.14	0.05	0.00	0.05	0.05	0.00	0.05	0.06	0.00	0.06	0.06	0.00	0.06	0.06	0.00	0.06	-57%	189	0.06	0.00	0.06
	SFWMD Polk Total	5.13	0.00	5.13	4.16	0.00	4.16	4.42	0.00	4.42	4.70	0.00	4.70	4.93	0.00	4.93	5.15	0.00	5.15	0%	N/A	5.46	0.00	5.46

Table A-5b. Public supply water use by water source for 2015, 5-in-10 year water demand projections for 2020-2040, and 1-in-10 year water demand projections for 2040 by county and utility in the CFWI Planning Area (continued).

County/District	Utility	Water use			Demand Projections (5-in-10)															Percent Demand Change 2015-2040	2011-2015 Avg Gross GPCD	Demand Projections (1-in-10)		
		2015			2020			2025			2030			2035			2040					2040		
		GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total			GW	SW	Total
Polk – SWFWMD	City of Bartow	2.44	0.00	2.44	3.11	0.00	3.11	3.33	0.00	3.33	3.53	0.00	3.53	3.74	0.00	3.74	3.93	0.00	3.93	61%	116	4.17	0.00	4.17
	Lelynn RV Resort	0.02	0.00	0.02	0.02	0.00	0.02	0.02	0.00	0.02	0.02	0.00	0.02	0.02	0.00	0.02	0.02	0.00	0.02	0%	50	0.02	0.00	0.02
	City of Fort Meade	0.50	0.00	0.50	0.55	0.00	0.55	0.58	0.00	0.58	0.60	0.00	0.60	0.63	0.00	0.63	0.66	0.00	0.66	32%	68	0.70	0.00	0.70
	Lake Region Mobile Home Owners	0.07	0.00	0.07	0.08	0.00	0.08	0.09	0.00	0.09	0.09	0.00	0.09	0.09	0.00	0.09	0.09	0.00	0.09	29%	90	0.10	0.00	0.10
	Four Lakes Golf Club	0.30	0.00	0.30	0.38	0.00	0.38	0.38	0.00	0.38	0.38	0.00	0.38	0.38	0.00	0.38	0.38	0.00	0.38	27%	318	0.40	0.00	0.40
	Lake Hamilton	0.35	0.00	0.35	0.28	0.00	0.28	0.30	0.00	0.30	0.32	0.00	0.32	0.35	0.00	0.35	0.37	0.00	0.37	6%	206	0.39	0.00	0.39
	Orchid Springs Development Corp	0.07	0.00	0.07	0.07	0.00	0.07	0.07	0.00	0.07	0.07	0.00	0.07	0.07	0.00	0.07	0.07	0.00	0.07	0%	75	0.07	0.00	0.07
	Park Water Company	0.22	0.00	0.22	0.23	0.00	0.23	0.25	0.00	0.25	0.27	0.00	0.27	0.28	0.00	0.28	0.30	0.00	0.30	36%	61	0.32	0.00	0.32
	City of Winter Haven	9.00	0.00	9.00	9.86	0.00	9.86	10.55	0.00	10.55	11.08	0.00	11.08	11.61	0.00	11.61	12.06	0.00	12.06	34%	123	12.78	0.00	12.78
	City of Lake Wales	2.41	0.00	2.41	2.74	0.00	2.74	3.01	0.00	3.01	3.25	0.00	3.25	3.53	0.00	3.53	3.81	0.00	3.81	58%	106	4.04	0.00	4.04
	City of Lakeland Electric and Water	20.15	0.00	20.15	22.49	0.00	22.49	23.84	0.00	23.84	24.83	0.00	24.83	25.79	0.00	25.79	26.70	0.00	26.70	33%	127	28.30	0.00	28.30
	Grenelefe Resort Utility, Inc.	1.12	0.00	1.12	1.05	0.00	1.05	1.05	0.00	1.05	1.05	0.00	1.05	1.06	0.00	1.06	1.06	0.00	1.06	-5%	402	1.12	0.00	1.12
	City of Davenport	0.81	0.00	0.81	0.80	0.00	0.80	0.91	0.00	0.91	1.02	0.00	1.02	1.13	0.00	1.13	1.25	0.00	1.25	54%	109	1.33	0.00	1.33
	City of Frostproof	0.37	0.00	0.37	0.35	0.00	0.35	0.37	0.00	0.37	0.39	0.00	0.39	0.42	0.00	0.42	0.44	0.00	0.44	19%	85	0.47	0.00	0.47
	Town of Dundee	0.54	0.00	0.54	0.56	0.00	0.56	0.64	0.00	0.64	0.72	0.00	0.72	0.80	0.00	0.80	0.89	0.00	0.89	65%	100	0.94	0.00	0.94
	North Pointe HOA	0.02	0.00	0.02	0.02	0.00	0.02	0.02	0.00	0.02	0.02	0.00	0.02	0.02	0.00	0.02	0.02	0.00	0.02	0%	126	0.02	0.00	0.02
	City of Mulberry	0.39	0.00	0.39	0.49	0.00	0.49	0.52	0.00	0.52	0.55	0.00	0.55	0.58	0.00	0.58	0.61	0.00	0.61	56%	106	0.65	0.00	0.65

Table A-5b. Public supply water use by water source for 2015, 5-in-10 year water demand projections for 2020-2040, and 1-in-10 year water demand projections for 2040 by county and utility in the CFWI Planning Area (continued).

County/District	Utility	Water use			Demand Projections (5-in-10)															Percent Demand Change 2015-2040	2011-2015 Avg Gross GPCD	Demand Projections (1-in-10)		
		2015			2020			2025			2030			2035			2040					2040		
		GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total			GW	SW	Total
Polk – SWFWMD (continued)	Saddlebag Lake Resort	0.09	0.00	0.09	0.10	0.00	0.10	0.10	0.00	0.10	0.10	0.00	0.10	0.10	0.00	0.10	0.10	0.00	0.10	11%	145	0.11	0.00	0.11
	Polk County Utilities - NWRSA	2.49	0.00	2.49	3.06	0.00	3.06	3.36	0.00	3.36	3.62	0.00	3.62	3.84	0.00	3.84	4.03	0.00	4.03	62%	64	4.27	0.00	4.27
	Polk County Utilities - SWRSA	3.11	0.00	3.11	3.62	0.00	3.62	3.95	0.00	3.95	4.22	0.00	4.22	4.36	0.00	4.36	4.50	0.00	4.50	45%	75	4.77	0.00	4.77
	Polk County Utilities - CRSA	1.00	0.00	1.00	1.09	0.00	1.09	1.19	0.00	1.19	1.29	0.00	1.29	1.39	0.00	1.39	1.48	0.00	1.48	48%	64	1.57	0.00	1.57
	Polk County Utilities - SERSA	0.54	0.00	0.54	0.56	0.00	0.56	0.58	0.00	0.58	0.59	0.00	0.59	0.61	0.00	0.61	0.63	0.00	0.63	17%	87	0.67	0.00	0.67
	Polk County Utilities - NERSA	6.70	0.00	6.70	8.47	0.00	8.47	9.56	0.00	9.56	10.43	0.00	10.43	11.18	0.00	11.18	11.71	0.00	11.71	75%	200	12.41	0.00	12.41
	City of Lake Alfred	1.02	0.00	1.02	1.17	0.00	1.17	1.29	0.00	1.29	1.39	0.00	1.39	1.50	0.00	1.50	1.60	0.00	1.60	57%	117	1.70	0.00	1.70
	City of Eagle Lake	0.32	0.00	0.32	0.41	0.00	0.41	0.49	0.00	0.49	0.56	0.00	0.56	0.65	0.00	0.65	0.74	0.00	0.74	131%	81	0.78	0.00	0.78
	City of Auburndale	4.56	0.00	4.56	5.00	0.00	5.00	5.45	0.00	5.45	5.84	0.00	5.84	6.24	0.00	6.24	6.62	0.00	6.62	45%	136	7.02	0.00	7.02
	CHCVII Lake Henry MHP	0.23	0.00	0.23	0.34	0.00	0.34	0.34	0.00	0.34	0.34	0.00	0.34	0.34	0.00	0.34	0.34	0.00	0.34	48%	266	0.36	0.00	0.36
	Carefree RV Country Club	0.08	0.00	0.08	0.11	0.00	0.11	0.11	0.00	0.11	0.11	0.00	0.11	0.11	0.00	0.11	0.11	0.00	0.11	38%	124	0.12	0.00	0.12
	Aqua Utilities Florida, Inc. - Lake Gibson	0.15	0.00	0.15	0.16	0.00	0.16	0.16	0.00	0.16	0.16	0.00	0.16	0.16	0.00	0.16	0.16	0.00	0.16	7%	80	0.17	0.00	0.17
	Polk County Utilities - ERSA	0.44	0.00	0.44	0.58	0.00	0.58	0.67	0.00	0.67	0.76	0.00	0.76	0.82	0.00	0.82	0.85	0.00	0.85	93%	74	0.90	0.00	0.90
CHCIII Swift Village MHP	0.10	0.00	0.10	0.18	0.00	0.18	0.18	0.00	0.18	0.19	0.00	0.19	0.19	0.00	0.19	0.19	0.00	0.19	90%	193	0.20	0.00	0.20	

Table A-5b. Public supply water use by water source for 2015, 5-in-10 year water demand projections for 2020-2040, and 1-in-10 year water demand projections for 2040 by county and utility in the CFWI Planning Area (continued).

County/District	Utility	Water use			Demand Projections (5-in-10)															Percent Demand Change 2015-2040	2011-2015 Avg Gross GPCD	Demand Projections (1-in-10)		
		2015			2020			2025			2030			2035			2040					2040		
		GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total			GW	SW	Total
Polk – SWFWMD (continued)	City of Polk City	0.36	0.00	0.36	0.39	0.00	0.39	0.43	0.00	0.43	0.47	0.00	0.47	0.51	0.00	0.51	0.54	0.00	0.54	50%	47	0.57	0.00	0.57
	City of Haines City	4.35	0.00	4.35	5.05	0.00	5.05	5.75	0.00	5.75	6.37	0.00	6.37	7.02	0.00	7.02	7.62	0.00	7.62	75%	170	8.08	0.00	8.08
	Sweetwater Community LLC	0.12	0.00	0.12	0.13	0.00	0.13	0.13	0.00	0.13	0.13	0.00	0.13	0.13	0.00	0.13	0.13	0.00	0.13	8%	244	0.14	0.00	0.14
	Ovation Water Production Facility	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	89	0.00	0.00	0.00
	Alafia Preserve LLC; Eagle Ridge LLC; and Donaldson	0.00	0.00	0.00	0.10	0.00	0.10	0.19	0.00	0.19	0.27	0.00	0.27	0.36	0.00	0.36	0.43	0.00	0.43	N/A	135	0.46	0.00	0.46
	Utilities, Inc - Cypress Lakes Utilities Inc.	0.17	0.00	0.17	0.22	0.00	0.22	0.22	0.00	0.22	0.22	0.00	0.22	0.22	0.00	0.22	0.22	0.00	0.22	29%	76	0.23	0.00	0.23
	SWFWMD Polk Total	64.61	0.00	64.61	73.82	0.00	73.82	80.08	0.00	80.08	85.25	0.00	85.25	90.23	0.00	90.23	94.66	0.00	94.66	47%	N/A	100.35	0.00	100.35

Table A-5b. Public supply water use by water source for 2015, 5-in-10 year water demand projections for 2020-2040, and 1-in-10 year water demand projections for 2040 by county and utility in the CFWI Planning Area (continued).

County/District	Utility	Water use			Demand Projections (5-in-10)															Percent Change 2015-2040	2011-2015 Avg Gross GPCD	Demand Projections (1-in-10)		
		2015			2020			2025			2030			2035			2040					2040		
		GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total			GW	SW	Total
Seminole - SJRWMD	Sanlando Utilities Corp.	6.83	0.00	6.83	6.43	0.00	6.43	6.59	0.00	6.59	6.77	0.00	6.77	6.90	0.00	6.90	7.03	0.00	7.03	3%	179	7.45	0.00	7.45
	City of Sanford	6.57	0.00	6.57	7.17	0.00	7.17	7.87	0.00	7.87	8.54	0.00	8.54	9.24	0.00	9.24	9.88	0.00	9.88	50%	101	10.47	0.00	10.47
	Seminole County Environmental Services	16.27	0.00	16.27	17.83	0.00	17.83	19.33	0.00	19.33	19.09	1.50	20.59	19.38	2.50	21.88	19.50	3.50	23.00	41%	135	20.88	3.50	24.38
	City of Winter Springs	3.42	0.00	3.42	3.97	0.00	3.97	4.13	0.00	4.13	4.21	0.00	4.21	4.30	0.00	4.30	4.37	0.00	4.37	28%	104	4.63	0.00	4.63
	City of Oviedo	3.91	0.00	3.91	4.30	0.00	4.30	4.57	0.00	4.57	4.80	0.00	4.80	4.95	0.00	4.95	5.05	0.00	5.05	29%	111	5.35	0.00	5.35
	Palm Valley Manufactured Home Comm.	0.07	0.00	0.07	0.07	0.00	0.07	0.07	0.00	0.07	0.07	0.00	0.07	0.07	0.00	0.07	0.07	0.00	0.07	0%	34	0.07	0.00	0.07
	Mullet Lake Water Association Inc	0.05	0.00	0.05	0.06	0.00	0.06	0.06	0.00	0.06	0.06	0.00	0.06	0.07	0.00	0.07	0.07	0.00	0.07	40%	71	0.07	0.00	0.07
	City of Longwood	1.68	0.00	1.68	2.04	0.00	2.04	2.17	0.00	2.17	2.29	0.00	2.29	2.33	0.00	2.33	2.35	0.00	2.35	40%	138	2.49	0.00	2.49
	City of Lake Mary	3.12	0.00	3.12	3.57	0.00	3.57	3.72	0.00	3.72	3.80	0.00	3.80	3.82	0.00	3.82	3.82	0.00	3.82	22%	213	4.05	0.00	4.05
	City of Casselberry	4.64	0.00	4.64	4.50	0.00	4.50	4.57	0.00	4.57	4.61	0.00	4.61	4.62	0.00	4.62	4.63	0.00	4.63	0%	94	4.91	0.00	4.91
	Utilities Inc. of Florida	0.17	0.00	0.17	0.08	0.00	0.08	0.08	0.00	0.08	0.08	0.00	0.08	0.08	0.00	0.08	0.08	0.00	0.08	-53%	155	0.08	0.00	0.08
	Utilities Inc. of Florida	0.20	0.00	0.20	0.22	0.00	0.22	0.22	0.00	0.22	0.22	0.00	0.22	0.22	0.00	0.22	0.22	0.00	0.22	10%	83	0.23	0.00	0.23
	Utilities Inc. of Florida	0.10	0.00	0.10	0.08	0.00	0.08	0.08	0.00	0.08	0.08	0.00	0.08	0.08	0.00	0.08	0.08	0.00	0.08	-20%	83	0.08	0.00	0.08
FGUA	0.51	0.00	0.51	0.52	0.00	0.52	0.55	0.00	0.55	0.57	0.00	0.57	0.60	0.00	0.60	0.64	0.00	0.64	25%	96	0.68	0.00	0.68	

Table A-5b. Public supply water use by water source for 2015, 5-in-10 year water demand projections for 2020-2040, and 1-in-10 year water demand projections for 2040 by county and utility in the CFWI Planning Area (continued).

County/District	Utility	Water use			Demand Projections (5-in-10)															Percent Change 2015 - 2040	2011-2015 Avg Gross GPCD	Demand Projections (1-in-10)		
		2015			2020			2025			2030			2035			2040					2040		
		GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total			GW	SW	Total
Seminole – SJRWMD (continued)	City of Altamonte Springs	0.08	0.00	0.08	0.08	0.00	0.08	0.08	0.00	0.08	0.08	0.00	0.08	0.08	0.00	0.08	0.08	0.00	0.08	0%	154	0.08	0.00	0.08
	City of Altamonte Springs	0.04	0.00	0.04	0.04	0.00	0.04	0.04	0.00	0.04	0.04	0.00	0.04	0.04	0.00	0.04	0.04	0.00	0.04	0%	811	0.04	0.00	0.04
	City of Altamonte Springs	5.68	0.00	5.68	5.93	0.00	5.93	6.33	0.00	6.33	6.70	0.00	6.70	6.97	0.00	6.97	7.23	0.00	7.23	27%	111	7.66	0.00	7.66
	City of Altamonte Springs	0.32	0.00	0.32	0.40	0.00	0.40	0.41	0.00	0.41	0.41	0.00	0.41	0.41	0.00	0.41	0.41	0.00	0.41	28%	79	0.43	0.00	0.43
	City of Altamonte Springs - Total	6.12	0.00	6.12	6.45	0.00	6.45	6.86	0.00	6.86	7.23	0.00	7.23	6.45	0.00	6.45	7.76	0.00	7.76	55%	N/A	8.21	8.21	8.21
	SJRWMD Seminole Total	53.66	0.00	53.66	57.29	0.00	57.29	60.87	0.00	60.87	62.42	1.50	63.92	53.66	0.00	53.66	65.55	3.50	69.05	29%	N/A	69.69	3.50	73.19
SFWMD Total		74.54	0.00	74.54	130.75	0.13	130.88	147.43	1.09	148.52	162.40	2.16	164.56	178.56	3.06	181.62	191.54	3.75	195.29	162%	N/A	74.54	0.00	74.54
SJRWMD Total		246.82	0.00	246.82	229.90	8.87	238.77	254.96	8.87	263.83	269.68	10.37	280.05	280.59	11.37	291.96	289.96	12.37	302.33	22%	N/A	308.10	12.37	320.47
SWFWMD Total		64.61	0.00	64.61	73.82	0.00	73.82	80.08	0.00	80.08	85.25	0.00	85.25	90.23	0.00	90.23	94.66	0.00	94.66	47%	N/A	100.34	0.00	100.34
CFWI Total		385.97	0.00	385.97	434.47	9.00	443.47	482.47	9.96	492.43	517.33	12.53	529.86	549.38	14.43	563.81	576.16	16.12	592.28	53%	N/A	611.70	16.12	627.82

Notes: Water sources: GW – ground water; SW – surface water; Total – GW + SW.

Table A-5c. 2011-2015 Public Supply water use, population served, and 5-year gross per capita averages by county and utility in the CFWI Planning Area.

Cup Number	Utility	County	Water Use					Population					2011-2015 Average Gross GPCD
			2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	
50245	City of Cocoa	Brevard	23.217	23.028	25.112	21.699	22.943	174,397	173,812	174,687	175,762	178,704	132
2392	Southlake Utilities Inc.	Lake - CFWI	1.373	1.760	1.396	1.448	1.651	6,522	6,499	6,516	6,746	7,044	229
2453	City of Mascotte	Lake - CFWI	0.367	0.347	0.349	0.360	0.358	4,575	4,653	4,682	4,764	4,825	76
2478	City of Clermont	Lake - CFWI	5.780	5.848	5.552	5.260	5.443	31,171	31,623	32,715	33,137	33,914	172
2531	Thousand Trails	Lake - CFWI	0.147	0.134	0.153	0.194	0.208	1,416	1,411	1,412	1,414	1,420	118
2671	Town of Monteverde	Lake - CFWI	0.189	0.194	0.191	0.180	0.192	2,253	2,242	2,249	2,266	2,275	84
2700	Lake Utility Services Inc.	Lake - CFWI	5.354	4.465	3.998	3.595	4.382	20,244	20,623	21,237	22,026	23,150	203
2796, 2913	City of Groveland	Lake - CFWI	1.450	1.612	1.561	1.601	2.337	12,892	13,170	13,658	14,712	16,315	121
2840	Woodlands Church Lake LLC	Lake - CFWI	0.148	0.142	0.119	0.072	0.060	667	665	665	666	669	162
2886	City of Minneola	Lake - CFWI	1.552	1.536	1.497	1.510	1.649	12,383	12,463	12,652	13,011	13,453	121
2900	Ginn-LA Pine Island LTD LLLP	Lake - CFWI	0.086	0.059	0.074	0.127	0.121	9	9	9	9	17	8,811
6398	Clerbrook Golf and RV Resort	Lake - CFWI	0.099	0.137	0.095	0.102	0.084	2,739	2,730	2,731	2,735	2,747	38
50115	Ginn-LA Pine Island II LLLP	Lake - CFWI	0.085	0.065	0.065	0.097	0.214	85	84	85	91	96	1,193
103822	Colina Bay Water Company	Lake - CFWI	0.001	0.001	0.082	0.162	0.166	0	0	69	132	133	1,234
SJRWMD Lake (CFWI) Total			16.631	16.300	15.132	14.708	16.865	94,956	96,172	98,680	101,709	106,058	160
3159	Orlando Utilities Commission	Orange	0.000	0.000	0.000	0.000	0.000	173,725	177,353	182,139	187,329	191,040	N/A
48-00134-W, 48-00059-W	Orange County Public Utilities	Orange	17.137	17.419	17.173	17.557	18.080	107,895	110,668	114,970	119,456	124,287	N/A
48-00009-W	Reedy Creek Improvement District	Orange	13.715	14.157	14.464	14.689	16.309	0	0	0	0	0	N/A
48-00995-W	Taft Water Association	Orange	0.250	0.250	0.230	0.240	0.335	2,623	2,651	2,699	2,722	2,723	97
SFWMD Orange Total			31.102	31.826	31.867	32.486	34.724	284,243	290,672	299,808	309,507	318,050	108

Table A-5c. 2011-2015 Public Supply water use, population served, and 5-year gross per capita averages by county and utility in the CFWI Planning Area (continued).

Cup Number	Utility	County	Water Use					Population					2011-2015 Average Gross GPCD
			2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	
3159	Orlando Utilities Commission	Orange	76.636	75.973	74.706	76.399	81.225	224,055	227,427	229,641	231,967	234,860	N/A
3203	Clarcona Resorts Condominium Association	Orange	0.074	0.082	0.113	0.110	0.077	1,399	1,417	1,435	1,448	1,454	64
3216	City of Ocoee	Orange	3.603	3.364	3.413	3.286	3.568	29,183	29,777	30,298	31,399	31,725	113
3217	City of Apopka	Orange	10.132	9.916	8.759	8.155	9.067	62,977	63,930	65,564	67,335	68,695	140
3301	Zellwood Water Users Inc.	Orange	0.089	0.091	0.077	0.079	0.080	778	788	802	819	819	104
3302	Wedgfield Utilities Inc.	Orange	0.347	0.358	0.303	0.280	0.321	4,132	4,202	4,264	4,337	4,346	76
3317	Orange County Public Utilities	Orange	40.665	40.552	39.344	38.473	38.157	317,590	322,737	330,468	334,942	339,622	N/A
3347	Town of Oakland	Orange	0.499	0.465	0.447	0.408	0.423	3,363	3,361	3,411	3,459	3,477	131
3368	City of Winter Garden	Orange	5.982	5.604	5.006	5.052	6.704	38,675	39,501	40,663	41,961	43,397	139
3383	Rock Springs Palm Isles MHC	Orange	0.248	0.294	0.250	0.238	0.193	1,896	1,916	1,941	1,955	1,956	127
3407	Town of Eatonville	Orange	0.299	0.304	0.283	0.283	0.332	2,272	2,309	2,308	2,311	2,324	130
7624	City of Winter Park	Orange	10.031	10.257	10.287	9.554	9.974	63,153	63,544	64,484	65,653	65,594	155
50258	City of Maitland	Orange	2.831	2.842	2.671	2.601	2.708	11,139	11,201	11,325	11,610	11,990	238
51073	Aqua Utilities of Florida, Inc.	Orange	0.075	0.077	0.070	0.075	0.070	2,317	2,344	2,384	2,420	2,449	31
86536	Hometown America	Orange	0.055	0.094	0.071	0.071	0.110	316	319	323	326	326	249
92244	Sun Communities Inc	Orange	0.101	0.097	0.070	0.209	0.222	1,185	1,197	1,212	1,221	1,222	116
SJRWMD Orange Total			151.667	150.370	145.870	145.273	153.231	764,430	775,970	790,523	803,163	814,256	189
3159	Orlando Utilities Commission	Orange	76.636	75.973	74.706	76.399	81.225	397,780	404,780	411,780	419,296	425,900	187
3317	Orange County Public Utilities	Orange	57.802	57.971	56.517	56.030	56.237	425,485	433,405	445,438	454,398	463,909	128

Table A-5c. 2011-2015 Public Supply water use, population served, and 5-year gross per capita averages by county and utility in the CFWI Planning Area (continued).

Cup Number	Utility	County	Water Use					Population					2011-2015 Average Gross GPCD
			2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	
	East Central FL Services Inc.	Osceola	0.000	0.000	0.000	0.000	0.000	0	0	0	0	0	N/A
49-00084-W	St. Cloud Utility	Osceola	4.845	4.963	4.960	5.420	5.296	57,991	60,163	61,780	63,274	66,231	82
49-00103-W	Toho Water Authority	Osceola	29.265	27.199	29.227	28.531	28.513	206,182	210,880	216,608	222,223	231,865	131
49-00812-W	Pleasant Hill	Osceola	0.105	0.105	0.105	0.105	0.105	600	600	600	600	600	175
49-01207-W	Pleasant Hill Lakes	Osceola	0.000	0.087	0.151	0.000	0.655	5,590	5,693	5,859	6,152	6,542	30
49-01268-W	Tropical Palms Resort	Osceola	0.019	0.028	0.032	0.017	0.024	137	139	141	143	146	170
49-01945-W	The Floridan RV Resort	Osceola	0.076	0.099	0.084	0.069	0.082	331	335	340	344	351	241
SFWMD Osceola Total			34.310	32.481	34.559	34.142	34.675	270,831	277,810	285,328	292,736	305,735	120
	East Central FL Services Inc.	Osceola	0.028	0.025	0.027	0.030	0.127	214	216	219	221	225	216
	Toho Water Authority	Osceola	0.000	0.000	0.000	0.000	0.000	0	0	0	0	0	N/A
SJRWMD Osceola Total			0.028	0.025	0.027	0.030	0.127	214	216	219	221	225	126
49-00103-W	Toho Water Authority (Poinciana)	Polk	3.535	5.508	6.011	5.632	4.731	23,481	23,555	23,888	24,323	24,890	212
53-00026-W	River Ranch	Polk	0.181	0.160	0.180	0.170	0.170	638	639	644	648	652	267
53-00030-W	Lake Wales Utility Company	Polk	0.097	0.095	0.072	0.075	0.085	1,490	1,486	1,491	1,499	1,510	57
53-00126-W	Polk County Utilities (Oak Hills)	Polk	0.000	0.101	0.000	0.000	0.140	259	228	261	264	265	189
SFWMD Polk Total			3.813	5.864	6.263	5.877	5.126	25,868	25,908	26,284	26,734	27,317	204

Table A-5c. 2011-2015 Public Supply water use, population served, and 5-year gross per capita averages by county and utility in the CFWI Planning Area (continued).

Cup Number	Utility	County	Water Use					Population					2011-2015 Average Gross GPCD
			2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	
341	City of Bartow	Polk	2.976	2.942	2.784	2.832	2.435	23,692	23,701	23,889	24,266	24,706	116
587	Lelynn RV Resort	Polk	0.017	0.013	0.014	0.019	0.016	313	312	313	315	317	50
645	City of Fort Meade	Polk	0.544	0.513	0.551	0.531	0.496	7,645	7,631	7,781	8,018	7,818	68
1616	Lake Region Mobile Home Owners	Polk	0.095	0.086	0.082	0.070	0.074	891	896	898	906	916	90
1625	Four Lakes Golf Club	Polk	0.420	0.422	0.370	0.333	0.298	1,156	1,153	1,156	1,162	1,170	318
2332	Lake Hamilton	Polk	0.220	0.255	0.231	0.239	0.345	1,234	1,244	1,253	1,266	1,262	206
3415	Orchid Springs Development Corp	Polk	0.071	0.070	0.071	0.073	0.067	931	929	931	936	943	75
4005	Park Water Company	Polk	0.211	0.113	0.251	0.247	0.215	3,391	3,386	3,396	3,414	3,439	61
4607	City of Winter Haven	Polk	8.267	9.086	8.960	8.389	9.001	69,033	69,267	71,227	72,188	73,604	123
4658	City of Lake Wales	Polk	2.550	2.465	2.393	2.392	2.410	22,641	22,692	22,929	23,293	23,542	106
4912	City of Lakeland Electric and Water	Polk	21.394	21.044	20.141	19.938	20.147	159,079	159,739	160,764	163,475	165,037	127
5251	Grenelefe Resort Utility, Inc.	Polk	0.994	0.876	1.147	0.994	1.123	2,542	2,536	2,545	2,560	2,580	402
5750	City of Davenport	Polk	0.450	0.543	0.659	0.569	0.814	5,313	5,319	5,406	5,661	6,218	109
5870	City of Frostproof	Polk	0.327	0.262	0.311	0.361	0.372	3,852	3,808	3,805	3,810	3,861	85
5893	Town of Dundee	Polk	0.296	0.566	0.442	0.516	0.542	4,622	4,673	4,684	4,758	4,862	100
6023	North Pointe HOA	Polk	0.017	0.013	0.018	0.024	0.018	142	142	142	143	144	126
6124	City of Mulberry	Polk	0.455	0.482	0.472	0.470	0.389	4,280	4,274	4,271	4,252	4,290	106
6174	Saddlebag Lake Resort	Polk	0.084	0.106	0.091	0.116	0.086	658	657	665	673	684	145
6505	Polk County Utilities - NWRSA	Polk	2.996	2.861	2.551	2.492	2.491	41,263	41,290	41,590	42,082	42,656	64

Table A-5c. 2011-2015 Public Supply water use, population served, and 5-year gross per capita averages by county and utility in the CFWI Planning Area (continued).

Cup Number	Utility	County	Water Use					Population					2011-2015 Average Gross GPCD
			2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	
6506	Polk County Utilities - SWRSA	Polk	3.406	3.153	3.058	2.903	3.113	40,490	40,756	41,357	41,908	42,610	75
6507	Polk County Utilities - CRSA	Polk	0.981	1.020	0.988	0.903	1.003	15,210	15,210	15,269	15,416	15,593	64
6508	Polk County Utilities - SERSA	Polk	0.508	0.555	0.518	0.521	0.542	6,048	6,039	6,063	6,096	6,143	87
6509	Polk County Utilities - NERSA	Polk	7.193	6.886	6.680	6.911	6.696	33,491	33,696	34,149	34,885	35,936	200
6624	City of Lake Alfred	Polk	0.972	1.023	0.959	0.932	1.023	8,312	8,299	8,358	8,441	8,663	117
6920	City of Eagle Lake	Polk	0.361	0.393	0.364	0.339	0.316	4,307	4,304	4,333	4,378	4,447	81
7119	City of Auburndale	Polk	4.468	4.602	4.202	4.292	4.556	31,717	31,930	32,264	32,718	33,529	136
7187	CHCVII Lake Henry MHP	Polk	0.386	0.434	0.366	0.236	0.225	1,234	1,231	1,234	1,241	1,249	266
7328	Carefree RV Country Club	Polk	0.130	0.146	0.092	0.079	0.079	828	835	846	861	876	124
7878	Aqua Utilities Florida, Inc. - Lake Gibson	Polk	0.155	0.150	0.146	0.150	0.151	1,873	1,868	1,873	1,883	1,898	80
8054	Polk County Utilities - ERSA	Polk	0.527	0.494	0.482	0.436	0.435	6,416	6,406	6,430	6,468	6,525	74
8344	CHCIII Swift Village MHP	Polk	0.200	0.199	0.195	0.167	0.104	865	867	904	914	923	193
8468	City of Polk City	Polk	0.338	0.341	0.361	0.356	0.357	7,395	7,404	7,455	7,562	7,614	47
8522	City of Haines City	Polk	3.728	3.964	4.393	4.663	4.350	23,879	24,077	24,672	25,284	26,020	170
8967	Sweetwater Community LLC	Polk	0.138	0.130	0.123	0.123	0.121	519	517	519	522	525	244
10141	Ovation Water Production Facility	Polk	0.179	0.000	0.000	0.000	0.000	1	1	1	1	1	35,800
12964	Alafia Preserve LLC; Eagle Ridge LLC; and Donaldson	Polk	0.000	0.000	0.000	0.000	0.000	75	78	78	78	79	0
13043	Utilities, Inc - Cypress Lakes Utilities Inc.	Polk	0.201	0.205	0.219	0.241	0.174	2,736	2,729	2,737	2,757	2,778	76
SWFWMD Polk Total			66.255	66.413	64.685	63.857	64.584	538,074	539,896	546,187	554,591	563,458	119

Table A-5c. 2011-2015 Public Supply water use, population served, and 5-year gross per capita averages by county and utility in the CFWI Planning Area (continued).

Cup Number	Utility	County	Water Use					Population					2011-2015 Average Gross GPCD
			2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	
160	Sanlando Utilities Corp.	Seminole	6.779	6.231	5.830	5.999	6.830	35,134	35,261	35,318	35,476	35,640	179
162	City of Sanford	Seminole	6.181	7.034	6.109	6.463	6.572	62,578	63,295	63,093	64,761	66,191	101
3766	Druid Hills	Seminole	0.083	0.081	0.078	0.076	0.081	518	519	518	520	521	154
3769	Dol Rey Manor	Seminole	0.043	0.043	0.043	0.043	0.043	53	53	53	53	53	811
8213, 8356, 8359, 8361, 95581	Seminole County Environmental Services	Seminole	16.639	15.474	15.969	14.985	16.269	115,309	116,173	117,095	118,244	119,950	135
8238	City of Winter Springs	Seminole	3.797	3.662	3.560	3.229	3.416	33,332	33,464	34,131	34,629	34,910	104
8252	City of Oviedo	Seminole	4.034	3.911	3.762	3.814	3.913	33,706	34,460	34,852	36,135	36,704	111
8266	Hometown America	Seminole	0.082	0.078	0.075	0.070	0.070	2,184	2,188	2,184	2,189	2,196	34
8271	Mullet Lake Water System	Seminole	0.060	0.055	0.050	0.054	0.054	759	766	769	774	784	71
8274	City of Longwood	Seminole	1.959	1.864	1.758	1.674	1.678	12,843	12,842	12,893	13,006	13,192	138
8282	City of Lake Mary	Seminole	3.124	3.113	2.992	2.764	3.123	13,850	13,919	14,002	14,292	14,848	213
8284	City of Casselberry	Seminole	4.557	4.332	4.143	3.987	4.644	45,396	45,540	46,192	46,695	46,915	94
8345	Utilities Inc. of Florida	Seminole	0.059	0.062	0.065	0.048	0.168	518	519	519	520	522	155
8346	Utilities Inc. of Florida	Seminole	0.233	0.230	0.211	0.206	0.198	2,595	2,601	2,596	2,604	2,612	83
8352	Utilities Inc. of Florida	Seminole	0.075	0.073	0.072	0.064	0.095	913	915	914	916	919	83
8362	FGUA	Seminole	0.480	0.469	0.492	0.406	0.505	4,790	4,880	4,943	4,964	4,984	96
8372	City of Altamonte Springs	Seminole	5.197	5.180	5.005	5.142	5.680	46,485	47,060	47,393	47,633	48,255	111
50281	Apple Valley	Seminole	0.426	0.422	0.417	0.385	0.321	4,952	4,975	4,973	4,989	5,019	79
SJRWMD Seminole Total			53.808	52.314	50.631	49.409	53.660	415,915	419,430	422,438	428,400	434,215	123

Table A-5c. 2011-2015 Public Supply water use, population served, and 5-year gross per capita averages by county and utility in the CFWI Planning Area (continued).

	Water Use					Population					2011-2015 Average Gross GPCD
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	
SFWMD Total	69.225	70.171	72.689	72.505	74.525	580,942	594,390	611,420	628,977	651,102	117
SJRWMD Total	245.351	242.037	236.772	231.119	246.826	1,449,912	1,465,600	1,486,547	1,509,255	1,533,458	161
SWFWMD Total	66.255	66.413	64.685	63.857	64.584	538,074	539,896	546,187	554,591	563,458	119
CFWI Total	380.831	378.621	374.146	367.481	385.935	2,568,928	2,599,886	2,644,154	2,692,823	2,748,018	142

Notes:

- 1.) All water use is shown in million gallons per day.
- 2.) Rounding errors account for nominal discrepancies.
- 3.) Osceola County East Central Florida Services totals only include the wells and pumpage for houses, hunt camps, visitor centers, etc.
- 4.) 2011-2015 water use obtained from ECFTX model, SJRWMD EN-50, AWUS, DEP MOR, and USGS data.
- 5.) 2011-2015 population obtained from BEBR estimates of population for CFWI RWSP.

Table A-6a. Domestic self-supply (DSS) and small public supply systems population for 2015, 5-in-10 year population projections for 2020-2040, and percent population change for 2015-2040 by District and county in the CFWI Planning Area.

County/ District	Population	Population Projections					Percent Population Change 2015-2040
	2015	2020	2025	2030	2035	2040	
Lake (CFWI) - SJRWMD	11,407	7,645	8,305	8,903	9,501	10,087	-12%
Lake (CFWI) - SWFWMD	1,059	1,296	1,579	1,853	2,122	2,383	125%
Lake – CFWI Total	12,466	8,941	9,884	10,756	11,623	12,470	0%
Orange – SFWMD	45,936	46,781	48,000	50,304	52,301	53,848	17%
Orange - SJRWMD	68,926	66,482	64,621	63,047	61,260	59,147	-14%
Orange Total	114,862	113,263	112,621	113,351	113,561	112,995	-2%
Osceola - SFWMD	4,904	5,999	9,177	12,675	14,712	16,355	234%
Osceola - SJRWMD	1,190	1,878	2,554	3,171	3,709	4,375	268%
Osceola Total	6,094	7,877	11,731	15,846	18,421	20,730	240%
Polk – SFWMD	7,754	9,544	11,066	12,490	13,696	14,667	89%
Polk – SWFWMD	34,523	37,839	41,022	43,631	46,127	48,538	41%
Polk Total	42,277	47,383	52,088	56,121	59,823	63,205	50%
Seminole – SJRWMD	10,198	9,458	9,320	8,484	8,223	7,871	-23%
SFWMD Total	22,434	24,289	27,211	29,671	32,054	34,353	53%
SJRWMD Total	28,681	32,310	36,748	40,624	44,206	47,470	66%
SWFWMD Total	10,198	9,458	9,320	8,484	8,223	7,871	-23%
CFWI Total	422,909	430,443	455,247	479,411	499,562	516,365	22%

Notes:

- 1.) All water use is shown in million gallons per day (mgd).
- 2.) Rounding errors account for nominal discrepancies.
- 3.) Public water supply utility service areas often include residences that derive their water supply from privately owned (domestic self-supply: DSS) wells. Typically, these domestic self-supply water uses existed prior to their locations becoming part of public water supply service areas. For public water supply service areas, the Districts do not have sufficient information to separate the populations served by public supply systems from those served by domestic self-supply.
- 4.) 1-in-10 rainfall year demand for 2040 calculated as an additional 6 percent of 2040 average demand.
- 5.) DSS population in Lake County in SJRWMD decreases from 2015 to 2020 then increases through 2040 due to changes associated with Mascotte; 2015 DSS not served, then planned conversion to PS system.
- 6.) DSS population in Orange County in SJRWMD is expected to decrease through 2040 due to a planned DSS conversion to PS system by OCU of 1% per year.

Table A-6b. Domestic self-supply (DSS) and small public supply systems water use for 2015, 5-in-10 year water demand projections for 2020-2040, and 1-in-10 year water demand projections for 2040 by water source, district, and county in the CFWI Planning Area.

County/ District	Water Use			Demand Projections (5-in-10)															Percent Demand Change 2015 - 2040	Demand Projections (1-in-10)		
	2015			2020			2025			2030			2035			2040				2040		
	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total		GW	SW	Total
Lake (CFWI) SJRWMD	1.44	0.00	1.44	0.90	0.00	0.90	0.99	0.00	0.99	1.06	0.00	1.06	1.14	0.00	1.14	1.20	0.00	1.20	-17%	1.26	0.00	1.26
Lake (CFWI) SWFWMD	0.14	0.00	0.14	0.17	0.00	0.17	0.20	0.00	0.20	0.24	0.00	0.24	0.27	0.00	0.27	0.31	0.00	0.31	121%	0.33	0.00	0.33
Lake - Total CFWI	1.58	0.00	1.58	1.07	0.00	1.07	1.19	0.00	1.19	1.30	0.00	1.30	1.41	0.00	1.41	1.51	0.00	1.51	-4%	1.59	0.00	1.59
Orange - SFWMMD	5.76	0.00	5.76	5.87	0.00	5.87	6.02	0.00	6.02	6.32	0.00	6.32	6.57	0.00	6.57	6.76	0.00	6.76	17%	7.16	0.00	7.16
Orange - SJRWMD	8.64	0.00	8.64	8.29	0.00	8.29	8.06	0.00	8.06	7.86	0.00	7.86	7.64	0.00	7.64	7.37	0.00	7.37	-15%	7.80	0.00	7.80
Orange - Total	14.40	0.00	14.40	14.16	0.00	14.16	14.08	0.00	14.08	14.18	0.00	14.18	14.21	0.00	14.21	14.13	0.00	14.13	-2%	14.96	0.00	14.96
Osceola - SFWMMD	0.74	0.00	0.74	0.86	0.00	0.86	1.23	0.00	1.23	1.65	0.00	1.65	1.89	0.00	1.89	2.09	0.00	2.09	182%	2.20	0.00	2.20
Osceola - SJRWMD	0.14	0.00	0.14	0.22	0.00	0.22	0.30	0.00	0.30	0.38	0.00	0.38	0.44	0.00	0.44	0.52	0.00	0.52	N/A	0.55	0.00	0.55
Osceola - Total	0.88	0.00	0.88	1.08	0.00	1.08	1.53	0.00	1.53	2.03	0.00	2.03	2.33	0.00	2.33	2.61	0.00	2.61	197%	2.75	0.00	2.75
Polk - SFWMMD	0.84	0.00	0.84	1.00	0.00	1.00	1.13	0.00	1.13	1.26	0.00	1.26	1.36	0.00	1.36	1.44	0.00	1.44	71%	1.51	0.00	1.51
Polk - SWFWMD	2.90	0.00	2.90	3.24	0.00	3.24	3.51	0.00	3.51	3.73	0.00	3.73	3.94	0.00	3.94	4.15	0.00	4.15	43%	4.31	0.00	4.31
Polk - Total	3.74	0.00	3.74	4.24	0.00	4.24	4.64	0.00	4.64	4.99	0.00	4.99	5.30	0.00	5.30	5.59	0.00	5.59	49%	5.82	0.00	5.82
Seminole SJRWMD	0.96	0.00	0.96	0.89	0.00	0.89	0.88	0.00	0.88	0.80	0.00	0.80	0.79	0.00	0.79	0.75	0.00	0.75	-22%	0.78	0.00	0.78

Table A-6b. Domestic self-supply (DSS) and small public supply systems water use for 2015, 5-in-10 year water demand projections for 2020-2040, and 1-in-10 year water demand projections for 2040 by water source, district, and county in the CFWI Planning Area (continued).

County/ District	Water Use			Demand Projections (5-in-10)															Percent Demand Change 2015- 2040	Demand Projections (1-in-10)		
	2015			2020			2025			2030			2035			2040				2040		
	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total		GW	SW	Total
SFWMD Total	7.34	0.00	7.34	7.73	0.00	7.73	8.38	0.00	8.38	9.23	0.00	9.23	9.82	0.00	9.82	10.29	0.00	10.29	40%	10.87	0.00	10.87
SJRWMD Total	11.18	0.00	11.18	10.30	0.00	10.30	10.23	0.00	10.23	10.10	0.00	10.10	10.01	0.00	10.01	9.84	0.00	9.84	-12%	10.39	0.00	10.39
SWFWMD Total	3.04	0.00	3.04	3.41	0.00	3.41	3.71	0.00	3.71	3.97	0.00	3.97	4.21	0.00	4.21	4.46	0.00	4.46	47%	4.64	0.00	4.64
CFWI Total	21.56	0.00	21.56	21.44	0.00	21.44	22.32	0.00	22.32	23.30	0.00	23.30	24.04	0.00	24.04	24.59	0.00	24.59	14%	25.90	0.00	25.90

Notes:

- 1.) All water use is shown in million gallons per day (mgd).
- 2.) Rounding errors account for nominal discrepancies.
- 3.) Public water supply utility service areas often include residences that derive their water supply from privately owned (domestic self-supply: DSS) wells. Typically, these domestic self-supply water uses existed prior to their locations becoming part of public water supply service areas. For public water supply service areas, the Districts do not have sufficient information to separate the populations served by public supply systems from those served by domestic self-supply wells. Therefore, public water supply populations estimated often include some domestic self-supply population.
- 4.) 1-in-10 rainfall year demand for 2040 calculated as an additional 6 percent of 2040 average demand.
- 5.) DSS population in Lake County in SJRWMD decreases from 2015 to 2020 then increases through 2040 due to changes associated with Mascotte; 2015 DSS not served, then planned conversion to PS system.
- 6.) DSS population in Orange County in SJRWMD is expected to decrease through 2040 due to a planned DSS conversion to PS system by OCU of 1% per year.
- 7.) Water sources: GW – ground water; SW – surface water; Total – GW + SW.

Table A-6c-1. Domestic self-supply (DSS) 2015 population, population projections for 2020-2040, and percent population change 2015-2040 by district and county in the CFWI Planning Area.

County/ District	Population	Population Projections					Percent Population Change 2015-2040
	2015	2020	2025	2030	2035	2040	
Lake (CFWI) -SJRWMD	8,384	4,568	5,137	5,691	6,241	6,775	-19%
Lake (CFWI) SWFWMD	1,059	1,296	1,579	1,853	2,122	2,383	125%
Lake – CFWI Total	9,443	5,864	6,716	7,544	8,363	9,158	-3%
Orange -SFWMD	45,135	45,977	47,196	49,498	51,493	53,039	18%
Orange - SJRWMD	67,253	64,794	62,930	61,355	59,568	57,454	-15%
Orange -Total	112,388	110,771	110,126	110,853	111,061	110,493	-2%
Osceola - SFWMD	3,406	4,502	7,680	11,178	13,215	14,858	336%
Osceola - SJRWMD	1,190	1,878	2,554	3,171	3,709	4,375	268%
Osceola Total	4,596	6,380	10,234	14,349	16,924	19,233	318%
Polk - SFWMD	7,048	8,825	10,341	11,759	12,960	13,926	98%
Polk - SWFWMD	21,633	23,485	26,407	28,865	31,246	33,544	55%
Polk - Total	28,681	32,310	36,748	40,624	44,206	47,470	66%
Seminole - SJRWMD	5,863	4,881	4,650	3,741	3,413	3,000	-49%
SFWMD Total	55,589	59,304	65,217	72,435	77,668	81,823	47%
SJRWMD Total	82,690	76,121	75,271	73,958	72,931	71,604	-13%
SWFWMD Total	22,692	24,781	27,986	30,718	33,368	35,927	58%
CFWI Total	160,971	160,206	168,474	177,111	183,967	189,354	18%

Notes for Table A-6c-1:

- 1.) All water use is shown in million gallons per day (mgd).
- 2.) Rounding errors account for nominal discrepancies.
- 3.) 2015 to 2040 county population projections were obtained from BEBR estimates of population for CFWI RWSP (using county-wide projections from BEBR Population Projections: Volume 50, Bulletin 177, Smith 2017).
- 4.) Population projections shown here are permanent population projections only and do not include any factors such as seasonal residents, tourist population, or net commuter population.
- 5.) Per capita used to calculate demand projections is an average from 2011-2015 and is calculated as (Total County-wide Residential Water Use / Total Estimated Population). This per capita is commonly referred to as a residential per capita, as it only includes the indoor and outdoor residential uses.
- 6.) 1-in-10 rainfall year demand for 2040 calculated as an additional 6 percent of 2040 average demand.
- 7.) All demands are expected to come from groundwater; thus surface water projections are zero.
- 8.) 2015 water use varies from water management district's published reports of water use to account for population method used for the CFWI RWSP.
- 9.) Domestic self-supply (DSS) population in Lake County in SJRWMD decreases from 2015 to 2020 then increases through 2040 due to changes associated with Mascotte; 2015 DSS not served, then planned conversion to PS system.
- 10.) DSS population in Orange County in SJRWMD is expected to decrease through 2040 due to a planned DSS conversion to PS system by OCU of 1% per year.

Table A-6c-2. Domestic self-supply (DSS) water use for 2015, 5-in-10 year water demand projections for 2020-2040, percent demand change 2015-2040, and 2011-2015 average gpcd by water source, district, and county in the CFWI Planning Area.

County/ District	Water Use			Demand Projections (5-in-10)															Percent Demand Change 2015- 2040	2011 - 2015 Avg GPCD	Demand Projections (1-in-10)		
	2015			2020			2025			2030			2035			2040					2040		
	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total			GW	SW	Total
Lake (CFWI) SJRWMD	1.08	0.00	1.08	0.59	0.00	0.59	0.66	0.00	0.66	0.73	0.00	0.73	0.81	0.00	0.81	0.87	0.00	0.87	-19%	N/A	0.92	0.00	0.92
Lake (CFWI) SFWWMD	0.14	0.00	0.14	0.17	0.00	0.17	0.20	0.00	0.20	0.24	0.00	0.24	0.27	0.00	0.27	0.31	0.00	0.31	121%	N/A	0.33	0.00	0.33
Lake – CFWI Total	1.22	0.00	1.22	0.76	0.00	0.76	0.86	0.00	0.86	0.97	0.00	0.97	1.08	0.00	1.08	1.18	0.00	1.18	-3%	129	1.25	0.00	1.25
Orange - SFWWMD	5.64	0.00	5.64	5.75	0.00	5.75	5.90	0.00	5.90	6.19	0.00	6.19	6.44	0.00	6.44	6.63	0.00	6.63	18%	N/A	7.03	0.00	7.03
Orange - SJRWMD	8.41	0.00	8.41	8.10	0.00	8.10	7.87	0.00	7.87	7.67	0.00	7.67	7.45	0.00	7.45	7.18	0.00	7.18	-15%	N/A	7.61	0.00	7.61
Orange - Total	14.05	0.00	14.05	13.85	0.00	13.85	13.77	0.00	13.77	13.86	0.00	13.86	13.89	0.00	13.89	13.81	0.00	13.81	-2%	125	14.64	0.00	14.64
Osceola - SFWWMD	0.41	0.00	0.41	0.54	0.00	0.54	0.91	0.00	0.91	1.33	0.00	1.33	1.57	0.00	1.57	1.77	0.00	1.77	332%	N/A	1.88	0.00	1.88
Osceola - SJRWMD	0.14	0.00	0.14	0.22	0.00	0.22	0.30	0.00	0.30	0.38	0.00	0.38	0.44	0.00	0.44	0.52	0.00	0.52	N/A	N/A	0.55	0.00	0.55
Osceola - Total	0.55	0.00	0.55	0.76	0.00	0.76	1.21	0.00	1.21	1.71	0.00	1.71	2.01	0.00	2.01	2.29	0.00	2.29	316%	119	2.43	0.00	2.43
Polk - SFWWMD	0.60	0.00	0.60	0.75	0.00	0.75	0.88	0.00	0.88	1.00	0.00	1.00	1.10	0.00	1.10	1.18	0.00	1.18	97%	N/A	1.25	0.00	1.25
Polk - SFWWMD	1.84	0.00	1.84	2.00	0.00	2.00	2.24	0.00	2.24	2.45	0.00	2.45	2.66	0.00	2.66	2.85	0.00	2.85	55%	N/A	3.02	0.00	3.02
Polk Total	2.44	0.00	2.44	2.75	0.00	2.75	3.12	0.00	3.12	3.45	0.00	3.45	3.76	0.00	3.76	4.03	0.00	4.03	65%	85	4.27	0.00	4.27
Seminole - SJRWMD	0.52	0.00	0.52	0.43	0.00	0.43	0.41	0.00	0.41	0.33	0.00	0.33	0.30	0.00	0.30	0.26	0.00	0.26	-50%	88	0.28	0.00	0.28
SFWWMD Total	6.65	0.00	6.65	7.04	0.00	7.04	7.69	0.00	7.69	8.52	0.00	8.52	9.11	0.00	9.11	9.58	0.00	9.58	44%	N/A	10.16	0.00	10.16
SJRWMD Total	10.15	0.00	10.15	9.34	0.00	9.34	9.24	0.00	9.24	9.11	0.00	9.11	9.00	0.00	9.00	8.83	0.00	8.83	-13%	N/A	9.36	0.00	9.36
SFWWMD Total	1.98	0.00	1.98	2.17	0.00	2.17	2.44	0.00	2.44	2.69	0.00	2.69	2.93	0.00	2.93	3.16	0.00	3.16	60%	N/A	3.35	0.00	3.35
CFWI Total	18.78	0.00	18.78	18.55	0.00	18.55	19.37	0.00	19.37	20.32	0.00	20.32	21.04	0.00	21.04	21.57	0.00	21.57	15%	N/A	22.87	0.00	22.87

Notes for Table A-6c-2:

- 1.) All water use is shown in million gallons per day (mgd). Average water use is shown in gallons per consumer per day (gpcd).
- 2.) Rounding errors account for nominal discrepancies.
- 3.) 2015 to 2040 county population projections were obtained from BEBR estimates of population for CFWI RWSP (using county-wide projections from BEBR Population Projections: Volume 50, Bulletin 177, Smith, 2017).
- 4.) Population projections shown here are permanent population projections only and do not include any factors such as seasonal residents, tourist population or net commuter population.
- 5.) Per capita used to calculate demand projections is an average from 2011-2015 and is calculated as (Total County-wide Residential Water Use / Total Estimated Population). This per capita is commonly referred to as a residential per capita, as it only includes the indoor and outdoor residential uses.
- 6.) 1-in-10 rainfall year demand for 2040 calculated as an additional 6 percent of 2040 average demand.
- 7.) All demands are expected to come from groundwater; thus surface water projections are zero.
- 8.) 2015 water use varies from water management district's published reports of water use to account for population method used for the CFWI RWSP.
- 9.) DSS population in Lake County in SJRWMD decreases from 2015 to 2020 then increases through 2040 due to changes associated with Mascotte; 2015 DSS not served, then planned conversion to PS system.
- 10.) DSS population in Orange County in SJRWMD is expected to decrease through 2040 due to a planned DSS conversion to PS system by OCU of 1% per year.
- 11.) Water sources: GW – ground water; SW – surface water; Total – GW + SW.

Table A-6d-1a. 2011-2012 residential water use per capita averages for all Lake County public supply permittees in the CFWI Planning Area.

CUP Number	Owner	Utility Category	County/ District	2011 Water Use	2011 % Household	2011 Household Use	2011 Population	2011 Residential GPCD	2012 Water Use	2012 % Household	2012 Household Use	2012 Population	2012 Residential GPCD
2392	Cagan Management Corp	Large	Lake – CFWI SJRWMD	1.373	99.0%	1.359	6,522	208	1.760	99.0%	1.742	6,499	268
2453	City of Mascotte	Large	Lake - CFWI SJRWMD	0.367	94.6%	0.347	4,575	76	0.347	94.6%	0.328	4,653	70
2478	City of Clermont	Large	Lake - CFWI SJRWMD	5.780	89.7%	5.185	31,171	166	5.848	89.7%	5.246	31,623	166
2531	Thousand Trails Inc	Large	Lake - CFWI SJRWMD	0.147	65.0%	0.096	1,416	68	0.134	65.0%	0.087	1,411	62
2671	Town of Monteverde	Large	Lake - CFWI SJRWMD	0.189	56.3%	0.106	2,253	47	0.194	56.3%	0.109	2,242	49
2700	Lake Utility Services Inc.	Large	Lake - CFWI SJRWMD	5.354	58.2%	3.116	20,244	154	4.465	58.2%	2.599	20,623	126
2796, 2913	City of Groveland	Large	Lake - CFWI SJRWMD	1.450	75.4%	1.093	12,892	85	1.612	75.4%	1.215	13,170	92
2840	Woodlands Church Lake LLC	Large	Lake - CFWI SJRWMD	0.148	87.2%	0.129	667	193	0.142	87.2%	0.124	665	186
2886	City of Minneola	Large	Lake - CFWI SJRWMD	1.552	74.0%	1.148	12,383	93	1.536	74.0%	1.137	12,463	91
2900	Ginn-LA Pine Island LTD LLLP	Large	Lake - CFWI SJRWMD	0.086	23.9%	0.021	9	2,333	0.059	23.9%	0.014	9	1,556
6398	Clerbrook Golf and RV Resort	Large	Lake - CFWI SJRWMD	0.099	50.0%	0.050	2,739	18	0.137	50.0%	0.069	2,730	25
50115	Ginn-LA Pine Island II LLLP	Large	Lake - CFWI SJRWMD	0.085	28.3%	0.024	85	282	0.065	28.3%	0.018	84	214
103822	Colina Bay Water Company	Large	Lake - CFWI SJRWMD	0.001	79.0%	0.001	0	N/A	0.001	79.0%	0.001	0	N/A
	Timber Village Mobile Home Pk	Small	Lake - CFWI SJRWMD	0.021	100.0%	0.021	217	97	0.020	100.0%	0.020	216	93
2565	MHC OL Utility System LLC	Small	Lake - CFWI SJRWMD	0.068	88.0%	0.060	592	101	0.046	88.0%	0.040	590	68
2847	Vacation Village Condominium Assn	Small	Lake - CFWI SJRWMD	0.024	75.0%	0.018	443	41	0.031	75.0%	0.023	442	52
2890	Monteverde Mobile Home Subd Assn Inc	Small	Lake - CFWI SJRWMD	0.031	100.0%	0.031	641	48	0.030	100.0%	0.030	639	47
2893	Torch Lite MHP LLC	Small	Lake - CFWI SJRWMD	0.011	94.2%	0.010	214	47	0.013	94.2%	0.012	213	56
2927	Four Winds Ecclesia	Small	Lake - CFWI SJRWMD	0.000	100.0%	0.000	N/A	N/A	0.100	100.0%	0.100	N/A	N/A

Table A-6d-1a. 2011-2012 residential water use per capita averages for all Lake County public supply permittees in the CFWI Planning Area (continued).

CUP Number	Owner	Utility Category	County/District	2011 Water Use	2011 % Household	2011 Household Use	2011 Population	2011 Residential GPCD	2012 Water Use	2012 % Household	2012 Household Use	2012 Population	2012 Residential GPCD
2989	Citrus Cove Homeowners Assoc	Small	Lake - CFWI SJRWMD	0.022	90.0%	0.020	116	172	0.023	90.0%	0.021	116	181
4487	Edgewater Beach Homeowners Assoc	Small	Lake - CFWI SJRWMD	0.005	90.2%	0.005	85	59	0.005	90.2%	0.005	84	60
10846	Presco Associates LLC	Small	Lake - CFWI SJRWMD	0.144	100.0%	0.144	2	72,000	0.144	100.0%	0.144	2	72,000
50218	Highlands MHP and Sales Inc	Small	Lake - CFWI SJRWMD	0.018	100.0%	0.018	148	122	0.016	100.0%	0.016	147	109
50307	Lake-Ulmerton Corporation	Small	Lake - CFWI SJRWMD	0.021	80.6%	0.017	543	31	0.025	80.6%	0.020	541	37
Lake (CFWI) Total				16.996	76.6%	13.019	97,957	133	16.753	78.3%	13.120	99,162	132

Table A-6d-1b. 2011-2012 residential water use per capita averages for all Orange County public supply permittees in the CFWI Planning Area.

CUP Number	Owner	Utility Category	County/District	2011 Water Use	2011 % Household	2011 Household Use	2011 Population	2011 Residential GPCD	2012 Water Use	2012 % Household	2012 Household Use	2012 Population	2012 Residential GPCD
48-00009-W	Reedy Creek Improvement District	Large	Orange SFWMD	13.715	100.0%	13.715	0	N/A	14.157	100.0%	14.157	0	N/A
48-00995-W	Taft Water Association	Large	Orange SFWMD	0.250	100.0%	0.250	2,623	95	0.250	100.0%	0.250	2,651	94
3203	Clarcona Resorts Condominium Association	Large	Orange SFWMD	0.074	89.4%	0.066	1,399	47	0.082	89.4%	0.073	1,417	52
3216	City of Ocoee	Large	Orange SFWMD	3.603	75.0%	2.702	29,183	93	3.364	75.0%	2.523	29,777	85
3217	City of Apopka	Large	Orange SFWMD	10.132	75.5%	7.650	62,977	121	9.916	75.5%	7.487	63,930	117
3301	Zellwood Water Users Inc.	Large	Orange SFWMD	0.089	84.3%	0.075	778	96	0.091	84.3%	0.077	788	98
3302	Wedgfield Utilities Inc.	Large	Orange SFWMD	0.347	83.7%	0.290	4,132	70	0.358	83.7%	0.300	4,202	71
3347	Town of Oakland	Large	Orange SFWMD	0.499	74.4%	0.371	3,363	110	0.465	74.4%	0.346	3,361	103
3368	City of Winter Garden	Large	Orange SFWMD	5.982	80.0%	4.786	38,675	124	5.604	80.0%	4.483	39,501	113
3383	Rock Springs Palm Isles MHC LLC	Large	Orange SFWMD	0.248	86.8%	0.215	1,896	113	0.294	86.8%	0.255	1,916	133
3407	Town of Eatonville	Large	Orange SFWMD	0.299	51.0%	0.152	2,272	67	0.304	51.0%	0.155	2,309	67
7624	City of Winter Park	Large	Orange SFWMD	10.031	66.5%	6.671	63,153	106	10.257	66.5%	6.821	63,544	107
50258	City of Maitland	Large	Orange SFWMD	2.831	52.0%	1.472	11,139	132	2.842	52.0%	1.478	11,201	132
51073	Aqua Utilities of Florida, Inc.	Large	Orange	0.075	100.0%	0.075	2,317	32	0.077	100.0%	0.077	2,344	33
86536	MHC SR Utility Systems LLC	Large	Orange SFWMD	0.055	100.0%	0.055	316	174	0.094	100.0%	0.094	319	295
92244	Sun Communities Inc	Large	Orange SFWMD	0.101	93.3%	0.094	1,185	79	0.097	93.3%	0.091	1,197	76
3159	Orlando Utilities Commission	Large	Orange SFWMD / SJRWMD	76.636	52.8%	40.464	397,780	102	75.973	52.8%	40.114	404,780	99
3317, 48-00134-W, 48-00059-W	Orange County Public Utilities	Large	Orange SFWMD SJRWMD	57.802	100.0%	57.802	425,485	136	57.971	100.0%	57.971	433,405	134

Table A-6d-1b. 2011-2012 residential water use per capita averages for all Orange County public supply permittees in the CFWI Planning Area (continued).

CUP Number	Owner	Utility Category	County/District	2011 Water Use	2011 % Household	2011 Household Use	2011 Population	2011 Residential GPCD	2012 Water Use	2012 % Household	2012 Household Use	2012 Population	2012 Residential GPCD
48-00332-W	Hidden Valley	Small	Orange SFWMD	0.061	100.0%	0.061	670	91	0.061	100.0%	0.061	677	90
48-00827-W	Orlando Lake Whippoorwill KOA	Small	Orange SFWMD	0.035	100.0%	0.035	N/A	N/A	0.035	100.0%	0.035	N/A	N/A
48-00979-W	Barton Lake Mobile Home Park	Small	Orange SFWMD	0.004	100.0%	0.004	8	500	0.004	100.0%	0.004	8	500
48-00981-W	Lake Whippoorwill Mobile Home Park	Small	Orange SFWMD	0.004	100.0%	0.004	99	40	0.004	100.0%	0.004	100	40
48-01035-W	Raccoon Lake Camp Resort	Small	Orange SFWMD	0.001	100.0%	0.001	N/A	N/A	0.001	100.0%	0.001	N/A	N/A
3236	Ola Beach Improvement Assoc.	Small	Orange SJRWMD	0.029	86.6%	0.025	208	120	0.036	86.6%	0.031	210	148
3299	Trimble Park	Small	Orange SJRWMD	0.002	100.0%	0.002	N/A	N/A	0.005	100.0%	0.005	N/A	N/A
3322	Forty Acres Holding Co	Small	Orange SJRWMD	0.003	100.0%	0.003	0	N/A	0.003	100.0%	0.003	0	N/A
3370	Orange Blossom RV Resort LLC	Small	Orange SJRWMD	0.003	100.0%	0.003	145	21	0.004	100.0%	0.004	147	27
4611	Valencia Estates Apopka LLC	Small	Orange SJRWMD	0.014	89.1%	0.012	306	39	0.013	89.1%	0.012	309	39
7673	The Valley Mobile Home Park	Small	Orange SJRWMD	0.057	99.0%	0.056	315	178	0.063	99.0%	0.062	318	195
148768	Brightwood Manor MHP	Small	Orange SJRWMD	0.059	100.0%	0.059	644	92	0.059	100.0%	0.059	649	91
Orange County Total				183.041	74.9%	137.170	1,051,068	131	182.484	75.1%	137.033	1,069,060	128

Table A-6d-1c. 2011-2012 residential water use per capita averages for all Osceola County public supply permittees in the CFWI Planning Area.

CUP Number	Owner	Utility Category	County/District	2011 Water Use	2011 % Household	2011 Household Use	2011 Population	2011 Residential GPCD	2012 Water Use	2012 % Household	2012 Household Use	2012 Population	2012 Residential GPCD
49-00103-W	East Central Florida Services Inc.	Large	Osceola SFWMD	0.000	100.0%	0.000	0	N/A	0.000	100.0%	0.000	0	N/A
49-00084-W	St. Cloud Utility	Large	Osceola SFWMD	4.845	100.0%	4.845	57,991	84	4.963	100.0%	4.963	60,163	82
49-00103-W	Toho Water Authority	Large	Osceola SFWMD	29.265	100.0%	29.265	206,182	142	27.199	100.0%	27.199	210,880	129
49-00812-W	Pleasant Hill	Large	Osceola SFWMD	0.105	100.0%	0.105	600	175	0.105	100.0%	0.105	600	175
49-01207-W	Pleasant Hill Lakes	Large	Osceola SFWMD	0.000	100.0%	0.000	5,590	0	0.087	100.0%	0.087	5,693	15
49-01268-W	Tropical Palms Resort	Large	Osceola SFWMD	0.019	100.0%	0.019	137	139	0.028	100.0%	0.028	139	201
49-01945-W	The Floridan RV Resort	Large	Osceola SFWMD	0.076	100.0%	0.076	331	230	0.099	100.0%	0.099	335	296
3426	East Central Florida Services Inc.	Large	Osceola SJRWMD	0.028	100.0%	0.028	214	131	0.025	100.0%	0.025	216	116
49-00103-W	Toho Water Authority	Large	Osceola SJRWMD	0.000	100.0%	0.000	0	N/A	0.000	100.0%	0.000	0	N/A
49-00450-W	Cypress Lake Fish Camp and RV Park	Small	Osceola SFWMD	0.016	100.0%	0.016	N/A	N/A	0.016	100.0%	0.016	N/A	N/A
49-00701-W	Merry D RV Sanctuary	Small	Osceola SFWMD	0.006	100.0%	0.006	N/A	N/A	0.006	100.0%	0.006	N/A	N/A
49-00914-W	Colonial Mobile Home Park	Small	Osceola SFWMD	0.014	100.0%	0.014	165	85	0.014	100.0%	0.014	167	84
49-00937-W	Orange Grove Campground	Small	Osceola SFWMD	0.013	100.0%	0.013	N/A	N/A	0.013	100.0%	0.013	N/A	N/A
49-00941-W	Lake Runnymede Mobile Home Park	Small	Osceola SFWMD	0.039	100.0%	0.039	196	199	0.037	100.0%	0.037	199	186
49-00961-W	Cypress Cove	Small	Osceola SFWMD	0.062	100.0%	0.062	584	106	0.062	100.0%	0.062	590	105
49-01205-W	Sharp's Mobile Home Park	Small	Osceola SFWMD	0.010	100.0%	0.010	214	47	0.010	100.0%	0.010	217	46
49-01780-W	Lake Marian Shores	Small	Osceola SFWMD	0.018	100.0%	0.018	5	3,600	0.018	100.0%	0.018	5	3,600
49-01992-W	Canoe Creek Campground	Small	Osceola SFWMD	0.032	100.0%	0.032	178	180	0.032	100.0%	0.032	178	180

Table A-6d-1c. 2011-2012 residential water use per capita averages for all Osceola County public supply permittees in the CFWI Planning Area (continued).

CUP Number	Owner	Utility Category	County/District	2011 Water Use	2011 % Household	2011 Household Use	2011 Population	2011 Residential GPCD	2012 Water Use	2012 % Household	2012 Household Use	2012 Population	2012 Residential GPCD
49-01995-W	Boggy Creek Resort and RV Park	Small	Osceola SFWMD	0.038	100.0%	0.038	N/A	N/A	0.038	100.0%	0.038	N/A	N/A
49-01996-W	Lake Toho Resort	Small	Osceola SFWMD	0.066	100.0%	0.066	27	2,444	0.066	100.0%	0.066	28	2,357
49-02045-W	Kings Mobile Home Park	Small	Osceola SFWMD	0.008	100.0%	0.008	41	195	0.008	100.0%	0.008	42	190
53-00185-W	Camp Mary Mobile Home Park	Small	Osceola SFWMD	0.000	100.0%	0.000	11	N/A	0.000	100.0%	0.000	11	N/A
Osceola County Total				34.660	100.0%	34.660	272,466	127	32.826	100.0%	32.826	279,463	117

Table A-6d-1d. 2011-2012 residential water use per capita averages for all Polk County public supply permittees in the CFWI Planning Area.

CUP Number	Owner	Utility Category	County/District	2011 Water Use	2011 % Household	2011 Household Use	2011 Population	2011 Residential GPCD	2012 Water Use	2012 % Household	2012 Household Use	2012 Population	2012 Residential GPCD
49-00103-W	Toho Water Authority (Poinciana)	Large	Polk SFWMD	3.535	100.0%	3.535	23,481	151	5.508	100.0%	5.508	23,555	234
53-0026-W	River Ranch	Large	Polk SFWMD	0.181	100.0%	0.181	638	284	0.160	100.0%	0.160	639	250
53-00030-W	Lake Wales Utility Company	Large	Polk SFWMD	0.097	100.0%	0.097	1,490	65	0.095	100.0%	0.095	1,486	64
53-00126-W	Polk County Utilities (Oak Hills)	Large	Polk SFWMD	0.000	100.0%	0.000	259	0	0.101	100.0%	0.101	228	443
341	City of Bartow	Large	Polk SWFWMD	2.976	49.1%	1.460	23,692	62	2.942	51.0%	1.500	23,701	63
587	Lelynn RV Resort	Large	Polk SWFWMD	0.017	100.0%	0.017	313	54	0.013	100.0%	0.013	312	42
645	City of Fort Meade	Large	Polk SWFWMD	0.544	68.0%	0.370	7,645	48	0.513	78.0%	0.400	7,631	52
1616	Lake Region Mobile Home Owners	Large	Polk SWFWMD	0.095	94.7%	0.090	891	101	0.086	100.0%	0.086	896	96
1625	Four Lakes Golf Club	Large	Polk SWFWMD	0.420	61.9%	0.260	1,156	225	0.422	47.4%	0.200	1,153	173
2332	Lake Hamilton	Large	Polk SWFWMD	0.220	86.4%	0.190	1,234	154	0.255	78.4%	0.200	1,244	161
3415	Orchid Springs Development Corp	Large	Polk SWFWMD	0.071	97.2%	0.069	931	74	0.070	92.9%	0.065	929	70
4005	Park Water Company	Large	Polk SWFWMD	0.211	71.1%	0.150	3,391	44	0.113	88.5%	0.100	3,386	30
4607	City of Winter Haven	Large	Polk SWFWMD	8.267	62.4%	5.160	69,033	75	9.086	66.0%	6.000	69,267	87
4658	City of Lake Wales	Large	Polk SWFWMD	2.550	68.2%	1.740	22,641	77	2.465	69.0%	1.700	22,692	75
4912	City of Lakeland Electric and Water	Large	Polk SWFWMD	21.394	66.2%	14.160	159,079	89	21.044	65.1%	13.700	159,739	86
5251	Grenelefe Resort Utility, Inc.	Large	Polk SWFWMD	0.994	12.1%	0.120	2,542	47	0.876	11.4%	0.100	2,536	39
5750	City of Davenport	Large	Polk SWFWMD	0.450	84.4%	0.380	5,313	72	0.543	92.1%	0.500	5,319	94

Table A-6d-1d. 2011-2012 residential water use per capita averages for all Polk County public supply permittees in the CFWI Planning Area (continued).

CUP Number	Owner	Utility Category	County/District	2011 Water Use	2011 % Household	2011 Household Use	2011 Population	2011 Residential GPCD	2012 Water Use	2012 % Household	2012 Household Use	2012 Population	2012 Residential GPCD
5870	City of Frostproof	Large	Polk SWFWMD	0.327	52.0%	0.170	3,852	44	0.262	38.2%	0.100	3,808	26
5893	Town of Dundee	Large	Polk SWFWMD	0.296	98.0%	0.290	4,622	63	0.566	53.0%	0.300	4,673	64
6023	North Pointe HOA	Large	Polk SWFWMD	0.017	100.0%	0.017	142	120	0.013	100.0%	0.013	142	92
6124	City of Mulberry	Large	Polk SWFWMD	0.455	85.7%	0.390	4,280	91	0.482	83.0%	0.400	4,274	94
6174	Saddlebag Lake Resort	Large	Polk SWFWMD	0.084	83.3%	0.070	658	106	0.106	94.3%	0.100	657	152
6505	Polk County Utilities - NWRSA	Large	Polk SWFWMD	2.996	82.1%	2.460	41,263	60	2.861	80.4%	2.300	41,290	56
6506	Polk County Utilities - SWRSA	Large	Polk SWFWMD	3.406	91.3%	3.110	40,490	77	3.153	92.0%	2.900	40,756	71
6507	Polk County Utilities - CRSA	Large	Polk SWFWMD	0.981	81.5%	0.800	15,210	53	1.020	78.4%	0.800	15,210	53
6508	Polk County Utilities - SERSA	Large	Polk SWFWMD	0.508	49.2%	0.250	6,048	41	0.555	90.1%	0.500	6,039	83
6509	Polk County Utilities - NERSA	Large	Polk SWFWMD	7.193	62.4%	4.485	33,491	134	6.886	67.1%	4.619	33,696	137
6624	City of Lake Alfred	Large	Polk SWFWMD	0.972	92.6%	0.900	8,312	108	1.023	100.0%	1.023	8,299	123
6920	City of Eagle Lake	Large	Polk SWFWMD	0.361	94.2%	0.340	4,307	79	0.393	50.9%	0.200	4,304	46
7119	City of Auburndale	Large	Polk SWFWMD	4.468	47.7%	2.130	31,717	67	4.602	54.3%	2.500	31,930	78
7187	CHCVII Lake Henry MHP	Large	Polk SWFWMD	0.386	54.4%	0.210	1,234	170	0.434	46.1%	0.200	1,231	162
7328	Carefree RV Country Club	Large	Polk SWFWMD	0.130	53.8%	0.070	828	85	0.146	68.5%	0.100	835	120
7878	Aqua Utilities Florida, Inc. - Lake Gibson	Large	Polk SWFWMD	0.155	83.9%	0.130	1,873	69	0.150	100.0%	0.150	1,868	80
8054	Polk County Utilities - ERSA	Large	Polk SWFWMD	0.527	62.6%	0.330	6,416	51	0.494	40.5%	0.200	6,406	31
8344	CHCIII Swift Village MHP	Large	Polk SWFWMD	0.200	100.0%	0.200	865	231	0.199	100.0%	0.199	867	230
8468	City of Polk City	Large	Polk SWFWMD	0.338	94.7%	0.320	7,395	43	0.341	88.0%	0.300	7,404	41
8522	City of Haines City	Large	Polk SWFWMD	3.728	85.0%	3.170	23,879	133	3.964	80.7%	3.200	24,077	133

Table A-6d-1d. 2011-2012 residential water use per capita averages for all Polk County public supply permittees in the CFWI Planning Area (continued).

CUP Number	Owner	Utility Category	County/District	2011 Water Use	2011 % Household	2011 Household Use	2011 Population	2011 Residential GPCD	2012 Water Use	2012 % Household	2012 Household Use	2012 Population	2012 Residential GPCD
8967	Sweetwater Community LLC	Large	Polk SWFWMD	0.138	79.7%	0.110	519	212	0.130	76.9%	0.100	517	193
10141	Ovation Water Production Facility	Large	Polk SWFWMD	0.179	0.0%	0.000	1	0	0.000	N/A	0.000	1	0
12964	Alafia Preserve LLC; Eagle Ridge LLC; and Donaldson	Large	Polk SWFWMD	0.000	0.0%	0.000	75	0	0.000	N/A	0.100	78	1,282
13043	Utilities, Inc - Cypress Lakes Utilities Inc.	Large	Polk SWFWMD	0.201	64.7%	0.130	2,736	48	0.205	100.0%	0.205	2,729	75
53-00088-W	Camp Mack	Small	Polk SFWMD	0.064	100.0%	0.064	N/A	N/A	0.064	100.0%	0.064	N/A	N/A
53-00150-W	Indian Lake Utilities	Small	Polk SFWMD	0.063	100.0%	0.063	371	170	0.098	100.0%	0.098	370	265
53-00152-W	Lake Kissimmee Mobile Home Park	Small	Polk SFWMD	0.050	100.0%	0.050	86	581	0.050	100.0%	0.050	86	581
53-00172-W	Breeze Hill Utilities	Small	Polk SFWMD	0.010	100.0%	0.010	142	70	0.010	100.0%	0.010	142	70
53-00185-W	Camp Mary Mobile Home Park	Small	Polk SFWMD	0.002	100.0%	0.002	N/A	N/A	0.002	100.0%	0.002	N/A	N/A
53-00247-W	Bannon Fishing Resort	Small	Polk SFWMD	0.000	100.0%	0.000	N/A	N/A	0.000	100.0%	0.000	N/A	N/A
53-00254-W	The Harbor RV Resort and Marina	Small	Polk SFWMD	0.033	100.0%	0.033	40	825	0.033	100.0%	0.033	40	825
53-00266-W	Camp Rosalie	Small	Polk SFWMD	0.009	100.0%	0.009	N/A	N/A	0.009	100.0%	0.009	N/A	N/A
53-00271-W	Shady Oaks Limited Use WTF	Small	Polk SFWMD	0.000	100.0%	0.000	4	0	0.000	100.0%	0.000	4	0
53-00286-W	Wounded Veterans Hunt Camp	Small	Polk SFWMD	0.001	100.0%	0.001	N/A	N/A	0.001	100.0%	0.001	N/A	N/A
53-00294-W	Coleman Landings	Small	Polk SFWMD	0.006	100.0%	0.006	N/A	N/A	0.006	100.0%	0.006	N/A	N/A
002083	Alturas Utilities LLC	Small	Polk SFWMD	0.024	100.0%	0.024	234	103	0.019	100.0%	0.019	234	81

Table A-6d-1d. 2011-2012 residential water use per capita averages for all Polk County public supply permittees in the CFWI Planning Area (continued).

CUP Number	Owner	Utility Category	County/District	2011 Water Use	2011 % Household	2011 Household Use	2011 Population	2011 Residential GPCD	2012 Water Use	2012 % Household	2012 Household Use	2012 Population	2012 Residential GPCD
002410	Scenic View Mobile Home Park	Small	Polk SFWMD	0.009	100.0%	0.009	75	120	0.007	100.0%	0.007	74	95
002449	Lake Henry Estates	Small	Polk SFWMD	0.059	100.0%	0.059	419	141	0.014	100.0%	0.014	418	33
003214	Sunrise Water Company	Small	Polk SFWMD	0.037	100.0%	0.037	642	58	0.037	100.0%	0.037	640	58
004175	Rainbow Chase RV Resort	Small	Polk SFWMD	0.027	100.0%	0.027	129	209	0.021	100.0%	0.021	129	163
004441	Spring Hill Estates Mobile Home Park	Small	Polk SFWMD	0.052	100.0%	0.052	577	90	0.008	100.0%	0.008	576	14
004479	Valhalla HOA Inc	Small	Polk SFWMD	0.025	100.0%	0.025	106	236	0.019	100.0%	0.019	106	179
005868	Rainbow Resort	Small	Polk SFWMD	0.048	100.0%	0.048	129	372	0.048	100.0%	0.048	128	375
006105	United Mc LLC	Small	Polk SFWMD	0.006	100.0%	0.006	70	86	0.005	100.0%	0.005	70	71
006119	Lucerne Lakeside MHP	Small	Polk SFWMD	0.017	100.0%	0.017	257	66	0.013	100.0%	0.013	258	50
006152	Lakeside Ranch Investment Corp	Small	Polk SFWMD	0.021	100.0%	0.021	319	66	0.016	100.0%	0.016	318	50
006156	Kathleen Oak Mobile Home Park	Small	Polk SFWMD	0.002	100.0%	0.002	15	133	0.002	100.0%	0.002	15	133
006208	Whispering Pines of Frostproof LLC	Small	Polk SFWMD	0.014	100.0%	0.014	69	203	0.013	100.0%	0.013	69	188
006308	La Casa De Lake Wales	Small	Polk SFWMD	0.009	100.0%	0.009	150	60	0.007	100.0%	0.007	150	47
006314	Twin Fountains	Small	Polk SFWMD	0.029	100.0%	0.029	378	77	0.022	100.0%	0.022	377	58
006495	Christmas Tree Trailer Park	Small	Polk SFWMD	0.013	100.0%	0.013	149	87	0.010	100.0%	0.010	149	67
006597	Towerwood Mobile Home Park	Small	Polk SFWMD	0.062	100.0%	0.062	620	100	0.022	100.0%	0.022	618	36
006679	Keen Sales Rentals & Utilities	Small	Polk SFWMD	0.012	100.0%	0.012	271	44	0.009	100.0%	0.009	270	33
006893	Hidden Cove Ltd	Small	Polk SFWMD	0.018	100.0%	0.018	183	98	0.014	100.0%	0.014	183	77
007172	McLeod Gardens	Small	Polk SFWMD	0.020	100.0%	0.020	230	87	0.016	100.0%	0.016	230	70
007315	Camp Inn Resort	Small	Polk SFWMD	0.027	100.0%	0.027	1,317	21	0.027	100.0%	0.027	1,317	21
007333	Sunlake Terrace Estates	Small	Polk SFWMD	0.065	100.0%	0.065	216	301	0.002	100.0%	0.002	216	9

Table A-6d-1d. 2011-2012 residential water use per capita averages for all Polk County public supply permittees in the CFWI Planning Area (continued).

CUP Number	Owner	Utility Category	County/District	2011 Water Use	2011 % Household	2011 Household Use	2011 Population	2011 Residential GPCD	2012 Water Use	2012 % Household	2012 Household Use	2012 Population	2012 Residential GPCD
007557	Lakemont Ridge Home & RV Park	Small	Polk SFWMD	0.019	100.0%	0.019	316	60	0.001	100.0%	0.001	315	3
007653	Orange Hill-Sugar Creek Service Area	Small	Polk SFWMD	0.050	100.0%	0.050	549	91	0.048	100.0%	0.048	548	88
007703	Orange Acres Ranch	Small	Polk SFWMD	0.031	100.0%	0.031	151	205	0.024	100.0%	0.024	150	160
008285	Mouse Mountain Inc	Small	Polk SFWMD	0.017	100.0%	0.017	252	67	0.013	100.0%	0.013	251	52
008370	Doans Mobile Home Park	Small	Polk SFWMD	0.006	100.0%	0.006	51	118	0.005	100.0%	0.005	51	98
008399	Three Worlds Resort	Small	Polk SFWMD	0.015	100.0%	0.015	462	32	0.017	100.0%	0.017	461	37
008536	Woodland Lakes Creative	Small	Polk SFWMD	0.036	100.0%	0.036	237	152	0.028	100.0%	0.028	237	118
008684	Good Life Resort Inc	Small	Polk SFWMD	0.021	100.0%	0.021	669	31	0.020	100.0%	0.020	667	30
008753	Plantation Landings	Small	Polk SFWMD	0.066	100.0%	0.066	590	112	0.063	100.0%	0.063	589	107
009128	Pinecrest	Small	Polk SFWMD	0.043	100.0%	0.043	342	126	0.042	100.0%	0.042	341	123
009336	Gibsonia Estates	Small	Polk SFWMD	0.026	100.0%	0.026	411	63	0.041	100.0%	0.041	411	100
009341	Sunshine Foundation Dream Village	Small	Polk SFWMD	0.011	100.0%	0.011	20	550	0.008	100.0%	0.008	20	400
009557	Southern Pines RV & MHP Resort	Small	Polk SFWMD	0.046	100.0%	0.046	343	134	0.045	100.0%	0.045	342	132
009569	Keen Sales & Rentals Inc.	Small	Polk SFWMD	0.007	100.0%	0.007	183	38	0.005	100.0%	0.005	184	27
009807	Village of Highland Park	Small	Polk SFWMD	0.022	100.0%	0.022	207	106	0.021	100.0%	0.021	209	100
009835	Van Lakes HOA	Small	Polk SFWMD	0.023	100.0%	0.023	205	112	0.018	100.0%	0.018	205	88
012655	Florida Camp Inn	Small	Polk SFWMD	0.047	100.0%	0.047	454	104	0.036	100.0%	0.036	453	79
012655	Florida Camp Inn	Small	Polk SFWMD	0.047	100.0%	0.047	454	104	0.036	100.0%	0.036	453	79
012800	Jordan's Grove Development	Small	Polk SFWMD	0.064	100.0%	0.064	0	N/A	0.062	100.0%	0.062	0	N/A
012899	Athena Cypress; LLC d/b/a Cypress Campground & RV	Small	Polk SFWMD	0.000	100.0%	0.000	140	0	0.000	100.0%	0.000	140	0

Table A-6d-1d. 2011-2012 residential water use per capita averages for all Polk County public supply permittees in the CFWI Planning Area (continued).

CUP Number	Owner	Utility Category	County/District	2011 Water Use	2011 % Household	2011 Household Use	2011 Population	2011 Residential GPCD	2012 Water Use	2012 % Household	2012 Household Use	2012 Population	2012 Residential GPCD
013167	The Preserve	Small	Polk SFWMD	0.000	100.0%	0.000	0	N/A	0.000	100.0%	0.000	0	N/A
020598	Porridge Investments	Small	Polk SFWMD	0.016	100.0%	0.016	255	63	0.017	100.0%	0.017	254	67
Polk County Total				71.468	69.2%	49.461	576,977	86	73.415	70.9%	52.075	578,819	90

Table A-6d-1e. 2011-2012 residential water use per capita averages for all Seminole County public supply permittees in the CFWI Planning Area.

CUP Number	Owner	Utility Category	County/District	2011 Water Use	2011 % Household	2011 Household Use	2011 Population	2011 Residential GPCD	2012 Water Use	2012 % Household	2012 Household Use	2012 Population	2012 Residential GPCD
160	Sanlando Utilities Corp.	Large	Seminole SJRWMD	6.779	76.0%	5.152	35,134	147	6.231	76.0%	4.736	35,261	134
162	City of Sanford	Large	Seminole SJRWMD	6.181	57.7%	3.566	62,578	57	7.034	57.7%	4.059	63,295	64
3766	City of Altamonte Springs	Large	Seminole SJRWMD	0.083	67.8%	0.056	518	108	0.081	67.8%	0.055	519	106
3769	City of Altamonte Springs	Small	Seminole SJRWMD	0.043	100.0%	0.043	53	811	0.043	100.0%	0.043	53	811
8213, 8356, 8359, 8361, 95581	Seminole County Environmental Services	Large	Seminole SJRWMD	16.639	78.0%	12.978	115,309	113	15.474	67.8%	10.491	116,173	90
8238	City of Winter Springs	Large	Seminole SJRWMD	3.797	87.2%	3.311	33,332	99	3.662	87.2%	3.193	33,464	95
8252	City of Oviedo	Large	Seminole SJRWMD	4.034	4.034	4.034	4,034	4.034	3.911	78.0%	3.051	34,460	89
8266	Palm Valley MH Community	Large	Seminole SJRWMD	0.082	83.0%	0.068	2,184	31	0.078	83.0%	0.065	2,188	30
8271	Mullet Lake Water Association Inc	Large	Seminole SJRWMD	0.060	95.0%	0.057	759	75	0.055	95.0%	0.052	766	68
8274	City of Longwood	Large	Seminole SJRWMD	1.959	78.9%	1.546	12,843	120	1.864	78.9%	1.471	12,842	115
8282	City of Lake Mary	Large	Seminole SJRWMD	3.124	42.0%	1.312	13,850	95	3.113	42.0%	1.307	13,919	94
8284	City of Casselberry	Large	Seminole SJRWMD	4.557	88.3%	4.024	45,396	89	4.332	88.3%	3.825	45,540	84
8345	Utilities Inc. of Florida	Large	Seminole SJRWMD	0.059	88.8%	0.052	518	100	0.062	88.8%	0.055	519	106
8346	Utilities Inc. of Florida	Large	Seminole SJRWMD	0.233	88.8%	0.207	2,595	80	0.230	88.8%	0.204	2,601	78
8352	Utilities Inc. of Florida	Large	Seminole SJRWMD	0.075	81.5%	0.061	913	67	0.073	81.5%	0.059	915	64
8362	FGUA	Large	Seminole SJRWMD	0.480	80.0%	0.384	4,790	80	0.469	80.0%	0.375	4,880	77
8372	City of Altamonte Springs	Large	Seminole SJRWMD	5.197	71.0%	3.690	46,485	79	5.180	71.0%	3.678	47,060	78
SJ_S-TCRV_FA33	Town and Country RV Resort	Small	Seminole SJRWMD	0.017	100.0%	0.017	14	1,214	0.015	100.0%	0.015	14	1,071
SJ_S-SHP_FA32	Spring Hammock MHP	Small	Seminole SJRWMD	0.005	100.0%	0.005	157	32	0.005	100.0%	0.005	158	32
8229	Lake Harney Water Assoc Inc	Small	Seminole SJRWMD	0.052	93.1%	0.048	497	97	0.032	93.1%	0.030	498	60

Table A-6d-1e. 2011-2012 residential water use per capita averages for all Seminole County public supply permittees in the CFWI Planning Area (continued).

CUP Number	Owner	Utility Category	County/District	2011 Water Use	2011 % Household	2011 Household Use	2011 Population	2011 Residential GPCD	2012 Water Use	2012 % Household	2012 Household Use	2012 Population	2012 Residential GPCD
8347	Utilities Inc. of Florida	Small	Seminole SJRWMD	0.062	93.0%	0.058	698	83	0.065	93.0%	0.060	699	86
8348	Utilities Inc. of Florida	Small	Seminole SJRWMD	0.029	88.0%	0.026	566	46	0.053	88.0%	0.047	567	83
8349	Utilities Inc. of Florida	Small	Seminole SJRWMD	0.012	86.0%	0.010	103	97	0.014	86.0%	0.012	103	117
8350, 8351	Utilities Inc. of Florida	Small	Seminole SJRWMD	0.054	84.1%	0.045	663	68	0.050	84.1%	0.042	665	63
8353	Utilities Inc. of Florida	Small	Seminole SJRWMD	0.018	88.0%	0.016	297	54	0.022	88.0%	0.019	297	64
8357	Aqua Utilities Florida Inc	Small	Seminole SJRWMD	0.010	89.0%	0.009	137	66	0.010	89.0%	0.009	137	66
8462	Seminole Woods Assoc	Small	Seminole SJRWMD	0.085	69.6%	0.059	546	108	0.055	69.6%	0.038	552	69
50281	City of Altamonte Springs	Large	Seminole SJRWMD	0.426	93.0%	0.396	4,952	80	0.422	93.0%	0.392	4,975	79
50932	Twelve Oaks - Thomas Vellanti	Small	Seminole SJRWMD	0.026	78.0%	0.020	612	33	0.021	78.0%	0.016	613	26
Seminole County Total				54.178	74.5%	40.363	420,205	96	52.656	71.0%	37.404	423,733	88

Notes for Tables A-6d-1a through A-6d-1e:

- 1.) All water use is shown in million gallons per day (mgd)
- 2.) Average water use is shown in gallons per consumer per day (gpcd).
- 3.) Rounding errors account for nominal discrepancies.
- 4.) 2011-2015 water use obtained from ECFTX model, SJRWMD EN-50, AWUS, DEP MOR, and USGS data.
- 5.) 2011-2015 population obtained from BEBR estimates of population for CFWI RWSP.
- 6.) Percent household use obtained from consumptive use permits, published water use reports and utility data where available.

Table A-6d-2a. 2013-2014 residential water use per capita averages for all Lake County public supply permittees in the CFWI Planning Area.

CUP Number	Owner	Utility Category	County/ District	2013 Water Use	2013 % Household	2013 Household Use	2013 Population	2013 Residential GPCD	2014 Water Use	2014 % Household	2014 Household Use	2014 Population	2014 Residential GPCD
2392	Cagan Management Corp	Large	Lake - CFWI SJRWMD	1.396	99.0%	1.382	6,516	212	1.448	99.0%	1.434	6,746	213
2453	City of Mascotte	Large	Lake - CFWI SJRWMD	0.349	94.6%	0.330	4,682	70	0.360	93.0%	0.335	4,764	70
2478	City of Clermont	Large	Lake - CFWI SJRWMD	5.552	89.7%	4.980	32,715	152	5.260	89.7%	4.718	33,137	142
2531	Thousand Trails Inc	Large	Lake - CFWI SJRWMD	0.153	65.0%	0.099	1,412	70	0.194	65.0%	0.126	1,414	89
2671	Town of Monteverde	Large	Lake - CFWI SJRWMD	0.191	56.3%	0.108	2,249	48	0.180	75.9%	0.137	2,266	60
2700	Lake Utility Services Inc.	Large	Lake - CFWI SJRWMD	3.998	58.2%	2.327	21,237	110	3.595	88.0%	3.164	22,026	144
2796, 2913	City of Groveland	Large	Lake - CFWI SJRWMD	1.561	75.4%	1.177	13,658	86	1.601	75.4%	1.207	14,712	82
2840	Woodlands Church Lake LLC	Large	Lake - CFWI SJRWMD	0.119	87.2%	0.104	665	156	0.072	87.2%	0.063	666	95
2886	City of Minneola	Large	Lake - CFWI SJRWMD	1.497	74.0%	1.108	12,652	88	1.510	74.0%	1.117	13,011	86
2900	Ginn-LA Pine Island LTD LLLP	Large	Lake - CFWI SJRWMD	0.074	23.9%	0.018	9	2,000	0.127	23.9%	0.030	9	3,333
6398	Clerbrook Golf and RV Resort	Large	Lake - CFWI SJRWMD	0.095	50.0%	0.048	2,731	18	0.102	50.0%	0.051	2,735	19
50115	Ginn-LA Pine Island II LLLP	Large	Lake - CFWI SJRWMD	0.065	28.3%	0.018	85	212	0.097	28.3%	0.027	91	297
103822	Colina Bay Water Company	Large	Lake - CFWI SJRWMD	0.082	79.0%	0.065	69	942	0.162	79.0%	0.128	132	970
	Timber Village Mobile Home Pk	Small	Lake - CFWI SJRWMD	0.020	100.0%	0.020	216	93	0.020	100.0%	0.020	216	93
2565	MHC OL Utility System LLC	Small	Lake - CFWI SJRWMD	0.142	81.7%	0.116	590	197	0.146	79.2%	0.116	591	196
2847	Vacation Village Condominium Assn	Small	Lake - CFWI SJRWMD	0.029	75.0%	0.022	442	50	0.030	75.0%	0.023	442	52
2890	Monteverde Mobile Home Subd Assn Inc	Small	Lake - CFWI SJRWMD	0.032	100.0%	0.032	639	50	0.033	100.0%	0.033	643	51
2893	Torch Lite MHP LLC	Small	Lake - CFWI SJRWMD	0.014	94.2%	0.013	213	61	0.011	94.2%	0.010	213	47
2927	Four Winds Ecclesia	Small	Lake - CFWI SJRWMD	0.100	100.0%	0.100	N/A	N/A	0.100	100.0%	0.100	N/A	N/A
2989	Citrus Cove Homeowners Assoc	Small	Lake - CFWI SJRWMD	0.017	90.0%	0.015	116	129	0.019	90.0%	0.017	116	147

Table A-6d-2a. 2013-2014 residential water use per capita averages for all Lake County public supply permittees in the CFWI Planning Area (continued).

CUP Number	Owner	Utility Category	County/District	2013 Water Use	2013 % Household	2013 Household Use	2013 Population	2013 Residential GPCD	2014 Water Use	2014 % Household	2014 Household Use	2014 Population	2014 Residential GPCD
4487	Edgewater Beach Homeowners Assoc	Small	Lake - CFWI SJRWMD	0.005	90.2%	0.005	85	59	0.005	90.2%	0.005	91	55
10846	Presco Associates LLC	Small	Lake - CFWI SJRWMD	0.144	100.0%	0.144	2	72,000	0.144	100.0%	0.144	2	72,000
50218	Highlands MHP and Sales Inc	Small	Lake - CFWI SJRWMD	0.020	100.0%	0.020	147	136	0.018	100.0%	0.018	147	122
50307	Lake-Ulmerton Corporation	Small	Lake - CFWI SJRWMD	0.028	80.6%	0.023	541	43	0.031	80.6%	0.025	542	46
Lake (CFWI) Total				15.683	78.3%	12.274	101,671	121	15.265	85.5%	13.048	104,712	125

Table A-6d-2b. 2013-2014 residential water use per capita averages for all Orange County public supply permittees in the CFWI Planning Area.

CUP Number	Owner	Utility Category	County/District	2013 Water Use	2013 % Household	2013 Household Use	2013 Population	2013 Residential GPCD	2014 Water Use	2014 % Household	2014 Household Use	2014 Population	2014 Residential GPCD
48-00009-W	Reedy Creek Improvement District	Large	Orange SFWMD	14.464	100.0%	14.464	0	N/A	14.689	100.0%	14.689	0	N/A
48-00995-W	Taft Water Association	Large	Orange SFWMD	0.230	100.0%	0.230	2,699	85	0.240	100.0%	0.240	2,722	88
3203	Clarcona Resorts Condominium Assn	Large	Orange SFWMD	0.113	89.4%	0.101	1,435	70	0.110	89.4%	0.098	1,448	68
3216	City of Ocoee	Large	Orange SFWMD	3.413	75.0%	2.560	30,298	84	3.286	75.0%	2.465	31,399	79
3217	City of Apopka	Large	Orange SFWMD	8.759	75.5%	6.613	65,564	101	8.155	75.5%	6.157	67,335	91
3301	Zellwood Water Users Inc.	Large	Orange SFWMD	0.077	84.7%	0.065	802	81	0.079	84.7%	0.067	819	82
3302	Wedgfield Utilities Inc.	Large	Orange SFWMD	0.303	79.3%	0.240	4,264	56	0.280	78.6%	0.220	4,337	51
3347	Town of Oakland	Large	Orange SFWMD	0.447	74.4%	0.333	3,411	98	0.408	74.4%	0.304	3,459	88
3368	City of Winter Garden	Large	Orange SFWMD	5.006	80.0%	4.005	40,663	98	5.052	80.0%	4.042	41,961	96
3383	Rock Springs Palm Isles MHC LLC	Large	Orange SFWMD	0.250	86.8%	0.217	1,941	112	0.238	86.8%	0.207	1,955	106
3407	Town of Eatonville	Large	Orange SFWMD	0.283	51.0%	0.144	2,308	62	0.283	51.0%	0.144	2,311	62
7624	City of Winter Park	Large	Orange SFWMD	10.287	66.5%	6.841	64,484	106	9.554	66.5%	6.353	65,653	97
50258	City of Maitland	Large	Orange SFWMD	2.671	52.0%	1.389	11,325	123	2.601	52.0%	1.353	11,610	117
51073	Aqua Utilities of Florida, Inc.	Large	Orange SFWMD	0.070	100.0%	0.070	2,384	29	0.075	100.0%	0.075	2,420	31
86536	MHC SR Utility Systems LLC	Large	Orange SFWMD	0.071	100.0%	0.071	323	220	0.071	100.0%	0.071	326	218
92244	Sun Communities Inc.	Large	Orange SFWMD	0.070	93.3%	0.065	1,212	54	0.209	93.3%	0.195	1,221	160
3159	Orlando Utilities Commission	Large	Orange SFWMD / SJRWMD	0.283	52.8%	39.445	411,780	96	76.399	52.8%	40.339	419,296	96
3317, 48-00134-W, 48-00059-W	Orange County Public Utilities	Large	Orange SFWMD SJRWMD	10.287	100.0%	56.517	445,438	127	56.030	100.0%	56.030	454,398	123

Table A-6d-2b. 2013-2014 residential water use per capita averages for all Orange County public supply permittees in the CFWI Planning Area (continued).

CUP Number	Owner	Utility Category	County/District	2013 Water Use	2013 % Household	2013 Household Use	2013 Population	2013 Residential GPCD	2014 Water Use	2014 % Household	2014 Household Use	2014 Population	2014 Residential GPCD
48-00332-W	Hidden Valley	Small	Orange SFWMD	2.671	100.0%	0.061	686	89	0.061	100.0%	0.061	691	88
48-00827-W	Orlando Lake Whippoorwill KOA	Small	Orange SFWMD	0.070	100.0%	0.035	N/A	N/A	0.035	100.0%	0.035	N/A	N/A
48-00979-W	Barton Lake Mobile Home Park	Small	Orange SFWMD	0.071	100.0%	0.004	8	500	0.004	100.0%	0.004	8	500
48-00981-W	Lake Whippoorwill Mobile Home Park	Small	Orange SFWMD	0.070	100.0%	0.004	101	40	0.004	100.0%	0.004	101	40
48-01035-W	Raccoon Lake Camp Resort	Small	Orange SFWMD	74.706	100.0%	0.001	N/A	N/A	0.001	100.0%	0.001	N/A	N/A
3236	Ola Beach Improvement Assn.	Small	Orange SJRWMD	56.517	86.6%	0.035	212	165	0.023	86.6%	0.020	214	93
3299	Trimble Park	Small	Orange SJRWMD	0.061	100.0%	0.005	N/A	N/A	0.005	100.0%	0.005	N/A	N/A
3322	Forty Acres Holding Co	Small	Orange SJRWMD	0.035	100.0%	0.000	0	N/A	0.000	100.0%	0.000	0	N/A
3370	Orange Blossom RV Resort LLC	Small	Orange SJRWMD	0.004	100.0%	0.005	148	34	0.004	100.0%	0.004	150	27
4611	Valencia Estates Apopka LLC	Small	Orange SJRWMD	0.004	85.0%	0.011	313	35	0.015	85.0%	0.013	315	41
7673	The Valley Mobile Home Park	Small	Orange SJRWMD	0.001	99.0%	0.053	322	165	0.056	99.0%	0.055	325	169
148768	Brightwood Manor MHP	Small	Orange SJRWMD	0.040	100.0%	0.059	656	90	0.059	100.0%	0.059	669	88
Orange County Total				178.018	75.1%	133.643	1,092,777	122	178.026	74.9%	133.310	1,115,143	120

Table A-6d-2c. 2013-2014 residential water use and per capita averages for all Osceola County public supply permittees in the CFWI Planning Area.

CUP Number	Owner	Utility Category	County/District	2013 Water Use	2013 % Household	2013 Household Use	2013 Population	2013 Residential GPCD	2014 Water Use	2014 % Household	2014 Household Use	2014 Population	2014 Residential GPCD
49-00103-W	East Central Florida Services Inc.	Large	Osceola SFWMD	0.000	100.0%	0.00	0	N/A	0.00	100.0%	0.00	0	N/A
49-00084-W	St. Cloud Utility	Large	Osceola SFWMD	4.845	100.0%	4.845	57,991	84	4.963	100.0%	4.963	60,163	82
49-00103-W	Toho Water Authority	Large	Osceola SFWMD	29.265	100.0%	29.265	206,182	142	27.199	100.0%	27.199	210,880	129
49-00812-W	Pleasant Hill	Large	Osceola SFWMD	0.105	100.0%	0.105	600	175	0.105	100.0%	0.105	600	175
49-01207-W	Pleasant Hill Lakes	Large	Osceola SFWMD	0.028	100.0%	0.028	5,590	0	0.087	100.0%	0.087	5,693	15
49-01268-W	Tropical Palms Resort	Large	Osceola SFWMD	0.019	100.0%	0.019	137	139	0.028	100.0%	0.028	139	201
0.76	The Floridan RV Resort	Large	Osceola SFWMD	0.076	100.0%	0.076	331	230	0.099	100.0%	0.099	335	296
3426	East Central Florida Services Inc.	Large	Osceola SJRWMD	0.028	100.0%	0.028	214	131	0.025	100.0%	0.025	216	116
49-00450-W	Cypress Lake Fish Camp and RV Park	Small	Osceola SFWMD	0.016	100.0%	0.016	N/A	N/A	0.016	100.0%	0.016	N/A	N/A
49-00701-W	Merry D RV Sanctuary	Small	Osceola SFWMD	0.006	100.0%	0.006	N/A	N/A	0.006	100.0%	0.006	N/A	N/A
49-00914-W	Colonial Mobile Home Park	Small	Osceola SFWMD	0.014	100.0%	0.014	165	85	0.014	100.0%	0.014	167	84
49-00937-W	Orange Grove Campground	Small	Osceola SFWMD	0.013	100.0%	0.013	N/A	N/A	0.013	100.0%	0.013	N/A	N/A
49-00941-W	Lake Runnymede Mobile Home Park	Small	Osceola SFWMD	0.039	100.0%	0.039	196	199	0.037	100.0%	0.037	186	199
49-00961-W	Cypress Cove	Small	Osceola SFWMD	0.062	100.0%	0.062	584	106	0.062	100.0%	0.062	590	105
49-01205-W	Sharp's Mobile Home Park	Small	Osceola SFWMD	0.010	100.0%	0.010	214	47	0.010	100.0%	0.010	217	46

Table A-6d-2c. 2013-2014 residential water use and per capita averages for all Osceola County public supply permittees in the CFWI Planning Area (continued).

CUP Number	Owner	Utility Category	County/District	2013 Water Use	2013 % Household	2013 Household Use	2013 Population	2013 Residential GPCD	2014 Water Use	2014 % Household	2014 Household Use	2014 Population	2014 Residential GPCD
49-01780-W	Lake Marian Shores	Small	Osceola SFWMD	0.018	100.0%	0.018	5	3,600	0.018	100.0%	0.018	5	3,600
49-01992-W	Canoe Creek Campground	Small	Osceola SFWMD	0.032	100.0%	0.032	178	180	0.032	100.0%	0.032	178	180
49-01995-W	Boggy Creek Resort and RV Park	Small	Osceola SFWMD	0.038	100.0%	0.038	N/A	N/A	0.038	100.0%	0.038	N/A	N/A
49-01996-W	Lake Toho Resort	Small	Osceola SFWMD	0.066	100.0%	0.066	27	2,444	0.066	100.0%	0.066	28	2,357
49-02045-W	Kings Mobile Home Park	Small	Osceola SFWMD	0.008	100.0%	0.008	41	195	0.008	100.0%	0.008	42	190
53-00185-W	Camp Mary Mobile Home Park	Small	Osceola SFWMD	0.000	100.0%	0.000	11	N/A	0.000	100.0%	0.000	11	N/A
Osceola County Total				34.892	100.0%	34.892	287,001	122	34.486	100.0%	34.486	294,427	117

Table A-6d-2d. 2013-2014 residential water use per capita averages for all Polk County public supply permittees in the CFWI Planning Area.

CUP Number	Owner	Utility Category	County/District	2013 Water Use	2013 % Household	2013 Household Use	2013 Population	2013 Residential GPCD	2014 Water Use	2014 % Household	2014 Household Use	2014 Population	2014 Residential GPCD
49-00103-W	Toho Water Authority (Poinciana)	Large	Polk SFWMD	6.011	100.0%	6.011	23,888	252	5.632	100.0%	5.632	24,323	232
53-0026-W	River Ranch	Large	Polk SFWMD	0.180	100.0%	0.180	644	280	0.170	100.0%	0.170	648	262
53-00030-W	Lake Wales Utility Company	Large	Polk SFWMD	0.072	100.0%	0.072	1,491	48	0.075	100.0%	0.075	1,499	50
53-00126-W	Polk County Utilities (Oak Hills)	Large	Polk SFWMD	0.000	100.0%	0.000	261	0	0.000	100.0%	0.000	264	0
341	City of Bartow	Large	Polk SFWMD	2.784	50.3%	1.400	23,889	59	2.832	49.4%	1.400	24,266	58
587	Lelynn RV Resort	Large	Polk SFWMD	0.014	100.0%	0.014	313	45	0.019	100.0%	0.019	315	60
645	City of Fort Meade	Large	Polk SFWMD	0.551	72.6%	0.400	7,781	51	0.531	75.3%	0.400	8,018	50
1616	Lake Region Mobile Home Owners	Large	Polk SFWMD	0.082	122.0%	0.100	898	111	0.070	100.0%	0.070	906	77
1625	Four Lakes Golf Club	Large	Polk SFWMD	0.370	54.1%	0.200	1,156	173	0.333	60.1%	0.200	1,162	172
2332	Lake Hamilton	Large	Polk SFWMD	0.231	86.6%	0.200	1,253	160	0.239	41.8%	0.100	1,266	79
3415	Orchid Springs Development Corp	Large	Polk SFWMD	0.071	97.2%	0.069	931	74	0.073	95.9%	0.070	936	75
4005	Park Water Company	Large	Polk SFWMD	0.251	79.7%	0.200	3,396	59	0.247	40.5%	0.100	3,414	29
4607	City of Winter Haven	Large	Polk SFWMD	8.960	69.2%	6.200	71,227	87	8.389	62.0%	5.200	72,188	72
4658	City of Lake Wales	Large	Polk SFWMD	2.393	66.9%	1.600	22,929	70	2.392	66.9%	1.600	23,293	69
4912	City of Lakeland Electric and Water	Large	Polk SFWMD	20.141	64.0%	12.900	160,764	80	19.938	63.2%	12.600	163,475	77
5251	Grenelefe Resort Utility, Inc.	Large	Polk SFWMD	1.147	17.4%	0.200	2,545	79	0.994	50.3%	0.500	2,560	195
5750	City of Davenport	Large	Polk SFWMD	0.659	75.9%	0.500	5,406	92	0.569	100.0%	0.569	5,661	101
5870	City of Frostproof	Large	Polk SFWMD	0.311	64.3%	0.200	3,805	53	0.361	55.4%	0.200	3,810	52
5893	Town of Dundee	Large	Polk SFWMD	0.442	67.9%	0.300	4,684	64	0.516	77.5%	0.400	4,758	84
6023	North Pointe HOA	Large	Polk SFWMD	0.018	100.0%	0.018	142	127	0.024	100.0%	0.024	143	168
6124	City of Mulberry	Large	Polk SFWMD	0.472	84.7%	0.400	4,271	94	0.470	85.1%	0.400	4,252	94

Table A-6d-2d. 2013-2014 residential water use per capita averages for all Polk County public supply permittees in the CFWI Planning Area (continued).

CUP Number	Owner	Utility Category	County/District	2013 Water Use	2013 % Household	2013 Household Use	2013 Population	2013 Residential GPCD	2014 Water Use	2014 % Household	2014 Household Use	2014 Population	2014 Residential GPCD
6174	Saddlebag Lake Resort	Large	Polk SWFWMD	0.091	100%	0.091	665	137	0.116	86.2%	0.100	673	149
6505	Polk County Utilities - NWRSA	Large	Polk SWFWMD	2.551	86.2%	2.200	41,590	53	2.492	62.5%	1.557	42,082	37
6506	Polk County Utilities - SWRSA	Large	Polk SWFWMD	3.058	88.3%	2.700	41,357	65	2.903	96.5%	2.800	41,908	67
6507	Polk County Utilities - CRSA	Large	Polk SWFWMD	0.988	81.0%	0.800	15,269	52	0.903	88.6%	0.800	15,416	52
6508	Polk County Utilities - SERSA	Large	Polk SWFWMD	0.518	38.6%	0.200	6,063	33	0.521	38.4%	0.200	6,096	33
6509	Polk County Utilities - NERSA	Large	Polk SWFWMD	6.680	65.2%	4.353	34,149	127	6.911	59.0%	4.076	34,885	117
6624	City of Lake Alfred	Large	Polk SWFWMD	0.959	73.0%	0.700	8,358	84	0.932	75.1%	0.700	8,441	83
6920	City of Eagle Lake	Large	Polk SWFWMD	0.364	54.9%	0.200	4,333	46	0.339	59.0%	0.200	4,378	46
7119	City of Auburndale	Large	Polk SWFWMD	4.202	52.4%	2.200	32,264	68	4.292	51.3%	2.200	32,718	67
7187	CHCVII Lake Henry MHP	Large	Polk SWFWMD	0.366	54.6%	0.200	1,234	162	0.236	42.4%	0.100	1,241	81
7328	Carefree RV Country Club	Large	Polk SWFWMD	0.092	100.0%	0.092	846	109	0.079	100.0%	0.079	861	92
7878	Aqua Utilities Florida, Inc. - Lake Gibson	Large	Polk SWFWMD	0.146	68.5%	0.100	1,873	53	0.150	66.7%	0.100	1,883	53
8054	Polk County Utilities - ERSAs	Large	Polk SWFWMD	0.482	62.2%	0.300	6,430	47	0.436	68.8%	0.300	6,468	46
8344	CHCIII Swift Village MHP	Large	Polk SWFWMD	0.195	100.0%	0.195	904	216	0.167	59.9%	0.100	914	109
8468	City of Polk City	Large	Polk SWFWMD	0.361	83.1%	0.300	7,455	40	0.356	56.2%	0.200	7,562	26
8522	City of Haines City	Large	Polk SWFWMD	4.393	68.3%	3.000	24,672	122	4.663	70.8%	3.300	25,284	131
8967	Sweetwater Community LLC	Large	Polk SWFWMD	0.123	81.3%	0.100	519	193	0.123	81.3%	0.100	522	192
10141	Ovation Water Production Facility	Large	Polk SWFWMD	0.000	N/A	0.000	1	0	0.000	N/A	0.000	1	0
12964	Alafia Preserve LLC; Eagle Ridge LLC; and Donaldso	Large	Polk SWFWMD	0.000	N/A	0.000	78	0	0.000	N/A	0.000	78	0
13043	Utilities, Inc - Cypress Lakes Utilities Inc.	Large	Polk SWFWMD	0.219	91.3%	0.200	2,737	73	0.241	41.5%	0.100	2,757	36

Table A-6d-2d. 2013-2014 residential water use per capita averages for all Polk County public supply permittees in the CFWI Planning Area (continued).

CUP Number	Owner	Utility Category	County/District	2013 Water Use	2013 % Household	2013 Household Use	2013 Population	2013 Residential GPCD	2014 Water Use	2014 % Household	2014 Household Use	2014 Population	2014 Residential GPCD
53-00088-W	Camp Mack	Small	Polk SFWMD	0.064	100.0%	0.064	N/A	N/A	0.064	100.0%	0.064	N/A	N/A
53-00150-W	Indian Lake Utilities	Small	Polk SFWMD	0.058	100.0%	0.058	371	156	0.065	100.0%	0.065	373	174
53-00152-W	Lake Kissimmee Mobile Home Park	Small	Polk SFWMD	0.050	100.0%	0.050	86	581	0.050	100.0%	0.050	86	581
53-00172-W	Breeze Hill Utilities	Small	Polk SFWMD	0.010	100.0%	0.010	142	70	0.010	100.0%	0.010	143	70
53-00185-W	Camp Mary Mobile Home Park	Small	Polk SFWMD	0.002	100.0%	0.002	N/A	N/A	0.002	100.0%	0.002	N/A	N/A
53-00247-W	Bannon Fishing Resort	Small	Polk SFWMD	0.000	100.0%	0.000	N/A	N/A	0.000	100.0%	0.000	N/A	N/A
53-00254-W	The Harbor RV Resort and Marina	Small	Polk SFWMD	0.033	100.0%	0.033	94	351	0.033	100.0%	0.033	94	351
53-00266-W	Camp Rosalie	Small	Polk SFWMD	0.009	100.0%	0.009	N/A	N/A	0.009	100.0%	0.009	N/A	N/A
53-00271-W	Shady Oaks Limited Use WTF	Small	Polk SFWMD	0.000	100.0%	0.000	4	0	0.000	100.0%	0.000	4	0
53-00286-W	Wounded Veterans Hunt Camp	Small	Polk SFWMD	0.001	100.0%	0.001	N/A	N/A	0.001	100.0%	0.001	N/A	N/A
53-00294-W	Coleman Landings	Small	Polk SFWMD	0.006	100.0%	0.006	N/A	N/A	0.006	100.0%	0.006	N/A	N/A
002083	Alturas Utilities LLC	Small	Polk SFWMD	0.021	100.0%	0.021	234	90	0.028	100.0%	0.028	236	119
002410	Scenic View Mobile Home Park	Small	Polk SFWMD	0.008	100.0%	0.008	75	107	0.010	100.0%	0.010	75	133
002449	Lake Henry Estates	Small	Polk SFWMD	0.054	100.0%	0.054	419	129	0.060	100.0%	0.060	421	143
003214	Sunrise Water Company	Small	Polk SFWMD	0.036	100.0%	0.036	642	56	0.037	100.0%	0.037	646	57
004175	Rainbow Chase RV Resort	Small	Polk SFWMD	0.023	100.0%	0.023	129	178	0.031	100.0%	0.031	129	240
004441	Spring Hill Estates Mobile Home Park	Small	Polk SFWMD	0.049	100.0%	0.049	577	85	0.054	100.0%	0.054	580	93
004479	Valhalla HOA Inc	Small	Polk SFWMD	0.021	100.0%	0.021	106	198	0.029	100.0%	0.029	107	271
005868	Rainbow Resort	Small	Polk SFWMD	0.046	100.0%	0.046	129	357	0.047	100.0%	0.047	129	364
006105	United Mc LLC	Small	Polk SFWMD	0.005	100.0%	0.005	70	71	0.007	100.0%	0.007	70	100
006119	Lucerne Lakeside MHP	Small	Polk SFWMD	0.015	100.0%	0.015	271	55	0.020	100.0%	0.020	274	73

Table A-6d-2d. 2013-2014 residential water use per capita averages for all Polk County public supply permittees in the CFWI Planning Area (continued).

CUP Number	Owner	Utility Category	County/District	2013 Water Use	2013 % Household	2013 Household Use	2013 Population	2013 Residential GPCD	2014 Water Use	2014 % Household	2014 Household Use	2014 Population	2014 Residential GPCD
006152	Lakeside Ranch Investment Corp	Small	Polk SFWMD	0.018	100.0%	0.018	320	56	0.024	100.0%	0.024	322	75
006156	Kathleen Oak Mobile Home Park	Small	Polk SFWMD	0.002	100.0%	0.002	15	133	0.003	100.0%	0.003	15	200
006208	Whispering Pines of Frostproof LLC	Small	Polk SFWMD	0.014	100.0%	0.014	152	92	0.019	100.0%	0.019	153	124
006308	La Casa De Lake Wales	Small	Polk SFWMD	0.008	100.0%	0.008	151	53	0.010	100.0%	0.010	151	66
006314	Twin Fountains	Small	Polk SFWMD	0.025	100.0%	0.025	379	66	0.034	100.0%	0.034	383	89
006495	Christmas Tree Trailer Park	Small	Polk SFWMD	0.011	100.0%	0.011	150	73	0.014	100.0%	0.014	150	93
006597	Towerwood Mobile Home Park	Small	Polk SFWMD	0.057	100.0%	0.057	620	92	0.066	100.0%	0.066	623	106
006679	Keen Sales Rentals & Utilities	Small	Polk SFWMD	0.010	100.0%	0.010	271	37	0.014	100.0%	0.014	272	51
006893	Hidden Cove Ltd	Small	Polk SFWMD	0.015	100.0%	0.015	183	82	0.020	100.0%	0.020	184	109
007172	McLeod Gardens	Small	Polk SFWMD	0.017	100.0%	0.017	233	73	0.023	100.0%	0.023	234	98
007315	Camp Inn Resort	Small	Polk SFWMD	0.026	100.0%	0.026	1,317	20	0.027	100.0%	0.027	1,317	21
007333	Sunlake Terrace Estates	Small	Polk SFWMD	0.062	100.0%	0.062	216	287	0.064	100.0%	0.064	218	294
007557	Lakemont Ridge Home & RV Park	Small	Polk SFWMD	0.019	100.0%	0.019	316	60	0.019	100.0%	0.019	318	60
007653	Orange Hill-Sugar Creek Service Area	Small	Polk SFWMD	0.047	100.0%	0.047	550	85	0.049	100.0%	0.049	553	89
007703	Orange Acres Ranch	Small	Polk SFWMD	0.027	100.0%	0.027	151	179	0.036	100.0%	0.036	151	238
008285	Mouse Mountain Inc	Small	Polk SFWMD	0.015	100.0%	0.015	252	60	0.020	100.0%	0.020	253	79
008370	Doans Mobile Home Park	Small	Polk SFWMD	0.005	100.0%	0.005	51	98	0.007	100.0%	0.007	51	137
008399	Three Worlds Resort	Small	Polk SFWMD	0.021	100.0%	0.021	462	45	0.022	100.0%	0.022	465	47
008536	Woodland Lakes Creative	Small	Polk SFWMD	0.031	100.0%	0.031	237	131	0.042	100.0%	0.042	239	176
008684	Good Life Resort Inc	Small	Polk SFWMD	0.020	100.0%	0.020	669	30	0.020	100.0%	0.020	673	30
008753	Plantation Landings	Small	Polk SFWMD	0.056	100.0%	0.056	590	95	0.056	100.0%	0.056	593	94

Table A-6d-2d. 2013-2014 residential water use per capita averages for all Polk County public supply permittees in the CFWI Planning Area (continued).

CUP Number	Owner	Utility Category	County/District	2013 Water Use	2013% Household	2013 Household Use	2013 Population	2013 Residential GPCD	2014 Water Use	2014 % Household	2014 Household Use	2014 Population	2014 Residential GPCD
009128	Pinecrest	Small	Polk SFWMD	0.041	100.0%	0.041	345	119	0.043	100.0%	0.043	346	124
009336	Gibsonia Estates	Small	Polk SFWMD	0.046	100.0%	0.046	412	112	0.062	100.0%	0.062	416	149
009341	Sunshine Foundation Dream Village	Small	Polk SFWMD	0.009	100.0%	0.009	20	450	0.012	100.0%	0.012	20	600
009557	Southern Pines RV & MHP Resort	Small	Polk SFWMD	0.044	100.0%	0.044	343	128	0.045	100.0%	0.045	345	130
009569	Keen Sales & Rentals Inc.	Small	Polk SFWMD	0.006	100.0%	0.006	187	32	0.008	100.0%	0.008	192	42
009807	Village of Highland Park	Small	Polk SFWMD	0.021	100.0%	0.021	210	100	0.021	100.0%	0.021	213	99
009835	Van Lakes HOA	Small	Polk SFWMD	0.020	100.0%	0.020	205	98	0.027	100.0%	0.027	207	130
012655	Florida Camp Inn	Small	Polk SFWMD	0.040	100.0%	0.040	454	88	0.054	100.0%	0.054	457	118
012800	Jordan's Grove Development	Small	Polk SFWMD	0.061	100.0%	0.061	0	N/A	0.063	100.0%	0.063	0	N/A
012899	Athena Cypress; LLC d/b/a Cypress Campground & RV	Small	Polk SFWMD	0.000	100.0%	0.000	140	0	0.000	100.0%	0.000	141	0
013167	The Preserve	Small	Polk SFWMD	0.000	100.0%	0.000	0	N/A	0.000	100.0%	0.000	0	N/A
020598	Porridge Investments	Small	Polk SFWMD	0.017	100.0%	0.017	255	67	0.017	100.0%	0.017	256	66
Polk County Total				72.270	69.8%	50.417	585,676	86	71.238	67.7%	48.245	594,603	81

Table A-6d-2e. 2013-2014 residential water use and per capita averages for all Seminole County public supply permittees in the CFWI Planning Area.

CUP Number	Owner	Utility Category	County/District	2013 Water Use	2013 % Household	2013 Household Use	2013 Population	2013 Residential GPCD	2014 Water Use	2014 % Household	2014 Household Use	2014 Population	2014 Residential GPCD
160	Sanlando Utilities Corp.	Large	Seminole SJRWMD	5.830	76.0%	4.431	35,318	125	5.999	76.0%	4.559	35,476	129
162	City of Sanford	Large	Seminole SJRWMD	6.109	57.7%	3.525	63,093	56	6.463	57.7%	3.729	64,761	58
3766	City of Altamonte Springs	Large	Seminole SJRWMD	0.078	67.8%	0.053	518	102	0.076	67.8%	0.052	520	100
3769	City of Altamonte Springs	Small	Seminole SJRWMD	0.043	100.0%	0.043	53	811	0.043	100.0%	0.043	53	811
8213, 8356, 8359, 8361, 95581	Seminole County Environmental Svcs.	Large	Seminole SJRWMD	15.969	67.8%	10.827	117,095	92	14.985	67.8%	10.160	118,244	86
8238	City of Winter Springs	Large	Seminole SJRWMD	3.560	87.2%	3.104	34,131	91	3.229	87.2%	2.816	34,629	81
8252	City of Oviedo	Large	Seminole SJRWMD	3.762	78.0%	2.934	34,852	84	3.814	78.0%	2.975	36,135	82
8266	Palm Valley MH Community	Large	Seminole SJRWMD	0.075	83.0%	0.062	2,184	28	0.070	83.0%	0.058	2,189	26
8271	Mullet Lake Water Association Inc	Large	Seminole SJRWMD	0.050	95.0%	0.048	769	62	0.054	95.0%	0.051	774	66
8274	City of Longwood	Large	Seminole SJRWMD	1.758	78.9%	1.387	12,893	108	1.674	78.9%	1.321	13,006	102
8282	City of Lake Mary	Large	Seminole SJRWMD	2.992	42.0%	1.257	14,002	90	2.764	42.0%	1.161	14,292	81
8284	City of Casselberry	Large	Seminole SJRWMD	4.143	88.3%	3.658	46,192	79	3.987	88.3%	3.521	46,695	75
8345	Utilities Inc. of Florida	Large	Seminole SJRWMD	0.065	88.8%	0.058	519	112	0.048	88.8%	0.043	520	83
8346	Utilities Inc. of Florida	Large	Seminole SJRWMD	0.211	88.8%	0.187	2,596	72	0.206	88.8%	0.183	2,604	70
8352	Utilities Inc. of Florida	Large	Seminole SJRWMD	0.072	81.5%	0.059	914	65	0.064	81.5%	0.052	916	57
8362	FGUA	Large	Seminole SJRWMD	0.492	80.0%	0.394	4,943	80	0.406	80.0%	0.325	4,964	65
8372	City of Altamonte Springs	Large	Seminole SJRWMD	5.005	71.0%	3.554	47,393	75	5.142	71.0%	3.651	47,633	77
SJ_S-TCRV_FA33	Town and Country RV Resort	Small	Seminole SJRWMD	0.015	100.0%	0.015	14	1,071	0.015	100.0%	0.015	14	1,071
SJ_S-SHP_FA32	Spring Hammock MHP	Small	Seminole SJRWMD	0.005	100.0%	0.005	157	32	0.005	100.0%	0.005	158	32

Table A-6d-2e. 2013-2014 residential water use and per capita averages for all Seminole County public supply permittees in the CFWI Planning Area (continued).

CUP Number	Owner	Utility Category	County/District	2013 Water Use	2013 % Household	2013 Household Use	2013 Population	2013 Residential GPCD	2014 Water Use	2014 % Household	2014 Household Use	2014 Population	2014 Residential GPCD
8229	Lake Harney Water Assoc Inc	Small	Seminole SJRWMD	0.040	93.1%	0.037	500	74	0.039	93.1%	0.036	501	72
8347	Utilities Inc. of Florida	Small	Seminole SJRWMD	0.063	93.0%	0.059	700	84	0.058	93.0%	0.054	702	77
8348	Utilities Inc. of Florida	Small	Seminole SJRWMD	0.054	88.0%	0.048	566	85	0.046	88.0%	0.040	567	71
8349	Utilities Inc. of Florida	Small	Seminole SJRWMD	0.014	86.0%	0.012	103	117	0.014	86.0%	0.012	103	117
8350, 8351	Utilities Inc. of Florida	Small	Seminole SJRWMD	0.043	84.1%	0.036	663	54	0.013	84.1%	0.011	665	17
8353	Utilities Inc. of Florida	Small	Seminole SJRWMD	0.023	88.0%	0.020	297	67	0.016	88.0%	0.014	298	47
8357	Aqua Utilities Florida Inc	Small	Seminole SJRWMD	0.010	89.0%	0.009	137	66	0.009	89.0%	0.008	137	58
8462	Seminole Woods Assoc	Small	Seminole SJRWMD	0.267	69.6%	0.186	551	338	0.275	69.6%	0.191	555	344
50281	City of Altamonte Springs	Large	Seminole SJRWMD	0.417	93.0%	0.388	4,973	78	0.385	93.0%	0.358	4,989	72
50932	Twelve Oaks - Thomas Vellanti	Small	Seminole SJRWMD	0.020	78.0%	0.016	612	26	0.020	78.0%	0.016	614	26
Seminole County Total				51.185	71.1%	36.412	426,738	85	49.919	71.0%	35.460	432,714	82

Notes for Tables A-6d-2a through A-6d-2e:

- 1.) All water use is shown in million gallons per day (mgd)
- 2) Average water use is shown in gallons per consumer per day (gpcd).
- 3.) Rounding errors account for nominal discrepancies.
- 4.) 2011-2015 water use obtained from ECFTX model, SJRWMD EN-50, AWUS, DEP MOR, and USGS data.
- 5.) 2011-2015 population obtained from BEBR estimates of population for CFWI RWSP.
- 6.) Percent household use obtained from consumptive use permits, published water use reports, and utility data where available.

Table A-6d-3a 2015 residential water use and five-year residential per capita averages for all Lake County public supply permittees in the CFWI Planning Area.

CUP Number	Owner	Utility Category	County/District	2015 Water Use	2015 % Household	2015 Household Use	2015 Population	2015 Residential GPCD	2011-2015 Average Residential GPCD
2392	Cagan Management Corp	Large	Lake - CFWI SJRWMD	1.651	99.0%	1.634	7,044	232	227
2453	City of Mascotte	Large	Lake - CFWI SJRWMD	0.358	93.0%	0.333	4,825	69	71
2478	City of Clermont	Large	Lake - CFWI SJRWMD	5.443	89.7%	4.882	33,914	144	154
2531	Thousand Trails Inc	Large	Lake - CFWI SJRWMD	0.208	65.0%	0.135	1,420	95	77
2671	Town of Monteverde	Large	Lake - CFWI SJRWMD	0.192	75.9%	0.146	2,275	64	54
2700	Lake Utility Services Inc.	Large	Lake - CFWI SJRWMD	4.382	88.0%	3.856	23,150	167	140
2796, 2913	City of Groveland	Large	Lake - CFWI SJRWMD	2.337	75.4%	1.762	16,315	108	91
2840	Woodlands Church Lake LLC	Large	Lake - CFWI SJRWMD	0.060	87.2%	0.052	669	78	142
2886	City of Minneola	Large	Lake - CFWI SJRWMD	1.649	74.0%	1.220	13,453	91	90
2900	Ginn-LA Pine Island LTD LLLP	Large	Lake - CFWI SJRWMD	0.121	23.9%	0.029	17	1,706	2186
6398	Clerbrook Golf and RV Resort	Large	Lake - CFWI SJRWMD	0.084	50.0%	0.042	2,747	15	19
50115	Ginn-LA Pine Island II LLLP	Large	Lake - CFWI SJRWMD	0.214	28.3%	0.061	96	635	328
103822	Colina Bay Water Company	Large	Lake - CFWI SJRWMD	0.166	79.0%	0.131	133	985	966
	Timber Village Mobile Home Pk	Small	Lake - CFWI SJRWMD	0.013	100.0%	0.013	217	60	87
2565	MHC OL Utility System LLC	Small	Lake - CFWI SJRWMD	0.080	79.2%	0.063	593	106	134
2847	Vacation Village Condominium Association	Small	Lake - CFWI SJRWMD	0.055	75.0%	0.041	444	92	57
2890	Monteverde Mobile Home Subd Assn Inc	Small	Lake - CFWI SJRWMD	0.033	100.0%	0.033	648	51	49
2893	Torch Lite MHP LLC	Small	Lake - CFWI SJRWMD	0.019	94.2%	0.018	214	84	59
2927	Four Winds Ecclesia	Small	Lake - CFWI SJRWMD	0.040	100.0%	0.040	N/A	N/A	N/A
2989	Citrus Cove Homeowners Assoc	Small	Lake - CFWI SJRWMD	0.031	90.0%	0.028	117	239	174

Table A-6d-3a. 2015 residential water use and five-year residential per capita averages for all Lake County public supply permittees in the CFWI Planning Area (continued).

CUP Number	Owner	Utility Category	County/District	2015 Water Use	2015 % Household	2015 Household Use	2015 Population	2015 Residential GPCD	2011-2015 Average Residential GPCD
4487	Edgewater Beach Homeowners Assoc	Small	Lake - CFWI SJRWMD	0.005	90.2%	0.005	96	52	57
10846	Presco Associates LLC	Small	Lake - CFWI SJRWMD	0.000	100.0%	0.000	2	0	57600
50218	Highlands MHP and Sales Inc	Small	Lake - CFWI SJRWMD	0.030	100.0%	0.030	148	203	138
50307	Lake-Ulmerton Corporation	Small	Lake - CFWI SJRWMD	0.050	80.6%	0.040	544	74	46
Lake (CFWI) Total				17.221	84.7%	14.594	109,081	134	129

Table A-6d-3b. 2015 residential water use and five-year residential per capita averages for all Orange County public supply permittees in the CFWI Planning Area.

CUP Number	Owner	Utility Category	County/District	2015 Water Use	2015 % Household	2015 Household Use	2015 Population	2015 Residential GPCD	2011-2015 Average Residential GPCD
48-00009-W	Reedy Creek Improvement District	Large	Orange SFWMD	16.309	100.0%	16.309	0	N/A	N/A
48-00995-W	Taft Water Association	Large	Orange SFWMD	0.335	100.0%	0.335	2,723	123	97
3203	Clarcona Resorts Condominium Association	Large	Orange SFWMD	0.077	89.4%	0.069	1,454	47	57
3216	City of Ocoee	Large	Orange SFWMD	3.568	75.0%	2.676	31,725	84	85
3217	City of Apopka	Large	Orange SFWMD	9.067	75.5%	6.846	68,695	100	106
3301	Zellwood Water Users Inc.	Large	Orange SFWMD	0.080	84.7%	0.068	819	83	88
3302	Wedgfield Utilities Inc.	Large	Orange SFWMD	0.321	78.6%	0.252	4,346	58	61
3347	Town of Oakland	Large	Orange SFWMD	0.423	74.4%	0.315	3,477	91	98
3368	City of Winter Garden	Large	Orange SFWMD	6.704	80.0%	5.363	43,397	124	111
3383	Rock Springs Palm Isles MHC LLC	Large	Orange SFWMD	0.193	86.8%	0.168	1,956	86	110
3407	Town of Eatonville	Large	Orange SFWMD	0.332	51.0%	0.169	2,324	73	66
7624	City of Winter Park	Large	Orange SFWMD	9.974	66.5%	6.633	65,594	101	103
50258	City of Maitland	Large	Orange SFWMD	2.708	52.0%	1.408	11,990	117	124
51073	Aqua Utilities of Florida, Inc.	Large	Orange SFWMD	0.070	100.0%	0.070	2,449	29	31
86536	MHC SR Utility Systems LLC	Large	Orange SFWMD	0.110	100.0%	0.110	326	337	249
92244	Sun Communities Inc	Large	Orange SFWMD	0.222	93.3%	0.207	1,222	169	108
3159	Orlando Utilities Commission	Large	Orange SFWMD/SJRWMD	81.225	52.8%	42.887	425,900	101	99
3317, 48-00134-W, 48-00059-W	Orange County Public Utilities	Large	Orange SFWMD/SJRWMD	56.237	100.0%	56.237	463,909	121	128

Table A-6d-3b. 2015 residential water use and five-year residential per capita averages for all Orange County public supply permittees in the CFWI Planning Area (continued).

CUP Number	Owner	Utility Category	County/District	2015 Water Use	2015 % Household	2015 Household Use	2015 Population	2015 Residential GPCD	2011-2015 Average Residential GPCD
48-00332-W	Hidden Valley	Small	Orange SFWMD	0.061	100.0%	0.061	691	88	89
48-00827-W	Orlando Lake Whippoorwill KOA	Small	Orange SFWMD	0.035	100.0%	0.035	N/A	N/A	N/A
48-00979-W	Barton Lake Mobile Home Park	Small	Orange SFWMD	0.004	100.0%	0.004	8	500	500
48-00981-W	Lake Whippoorwill Mobile Home Park	Small	Orange SFWMD	0.004	100.0%	0.004	102	39	40
48-01035-W	Raccoon Lake Camp Resort	Small	Orange SFWMD	0.001	100.0%	0.001	N/A	N/A	N/A
3236	Ola Beach Improvement Assoc.	Small	Orange SJRWMD	0.030	86.6%	0.026	214	121	129
3299	Trimble Park	Small	Orange SJRWMD	0.005	100.0%	0.005	N/A	N/A	N/A
3322	Forty Acres Holding Co	Small	Orange SJRWMD	0.000	100.0%	0.000	0	N/A	N/A
3370	Orange Blossom RV Resort LLC	Small	Orange SJRWMD	0.011	100.0%	0.011	150	73	36
4611	Valencia Estates Apopka LLC	Small	Orange SJRWMD	0.036	85.0%	0.031	315	98	50
7673	The Valley Mobile Home Park	Small	Orange SJRWMD	0.080	99.0%	0.079	325	243	190
148768	Brightwood Manor MHP	Small	Orange SJRWMD	0.059	100.0%	0.059	669	88	90
Orange County Total				188.281	74.6%	140.438	1,134,780	124	125

Table A-6d-3c. 2015 residential water use and five-year residential per capita averages for all Osceola County public supply permittees in the CFWI Planning Area.

CUP Number	Owner	Utility Category	County/District	2015 Water Use	2015 % Household	2015 Household Use	2015 Population	2015 Residential GPCD	2011-2015 Average Residential GPCD
49-00103-W	East Central Florida Services Inc.	Large	Osceola SFWMD	0.000	100.0%	0.000	0	N/A	N/A
49-00084-W	St. Cloud Utility	Large	Osceola SFWMD	5.296	100.0%	5.296	66,231	80	82
49-00103-W	Toho Water Authority	Large	Osceola SFWMD	28.513	100.0%	28.513	231,865	123	131
49-00812-W	Pleasant Hill	Large	Osceola SFWMD	0.105	100.0%	0.105	600	175	175
49-01207-W	Pleasant Hill Lakes	Large	Osceola SFWMD	0.655	100.0%	0.655	6,542	100	28
49-01268-W	Tropical Palms Resort	Large	Osceola SFWMD	0.024	100.0%	0.024	146	164	170
49-01945-W	The Floridan RV Resort	Large	Osceola SFWMD	0.082	100.0%	0.082	351	234	242
3426	East Central Florida Services Inc.	Large	Osceola SJRWMD	0.127	100.0%	0.127	225	564	214
49-00103-W	Toho Water Authority	Large	Osceola SJRWMD	0.000	100.0%	0.000	0	N/A	N/A
49-00450-W	Cypress Lake Fish Camp and RV Park	Small	Osceola SFWMD	0.016	100.0%	0.016	N/A	N/A	N/A
49-00701-W	Merry D RV Sanctuary	Small	Osceola SFWMD	0.010	100.0%	0.010	N/A	N/A	N/A
49-00914-W	Colonial Mobile Home Park	Small	Osceola SFWMD	0.014	100.0%	0.014	175	80	83
49-00937-W	Orange Grove Campground	Small	Osceola SFWMD	0.013	100.0%	0.013	N/A	N/A	N/A
49-00941-W	Lake Runnymede Mobile Home Park	Small	Osceola SFWMD	0.038	100.0%	0.038	209	182	167
49-00961-W	Cypress Cove	Small	Osceola SFWMD	0.062	100.0%	0.062	620	100	103
49-01205-W	Sharp's Mobile Home Park	Small	Osceola SFWMD	0.009	100.0%	0.009	227	40	45
49-01780-W	Lake Marian Shores	Small	Osceola SFWMD	0.018	100.0%	0.018	5	3,600	3600
49-01992-W	Canoe Creek Campground	Small	Osceola SFWMD	0.032	100.0%	0.032	178	180	180
49-01995-W	Boggy Creek Resort and RV Park	Small	Osceola SFWMD	0.038	100.0%	0.038	N/A	N/A	N/A

Table A-6d-3c. 2015 residential water use and five-year residential per capita averages for all Osceola County public supply permittees in the CFWI Planning Area (continued).

CUP Number	Owner	Utility Category	County/District	2015 Water Use	2015 % Household	2015 Household Use	2015 Population	2015 Residential GPCD	2011-2015 Average Residential GPCD
49-01996-W	Lake Toho Resort	Small	Osceola SFWMD	0.066	100.0%	0.066	29	2,276	2358
49-02045-W	Kings Mobile Home Park	Small	Osceola SFWMD	0.008	100.0%	0.008	44	182	189
53-00185-W	Camp Mary Mobile Home Park	Small	Osceola SFWMD	0.000	100.0%	0.000	11	N/A	N/A
Osceola County Total				35.126	100.0%	35.126	307,458	114	119

Table A-6d-3d. 2015 residential water use and five-year residential per capita averages for all Polk County public supply permittees in the CFWI Planning Area.

CUP Number	Owner	Utility Category	County/ District	2015 Water Use	2015 % Household	2015 Household Use	2015 Population	2015 Residential GPCD	2011 – 2015 Average Residential GPCD
49-00103-W	Toho Water Authority (Poinciana)	Large	Polk SFWMD	4.731	100.0%	4.731	24,890	190	212
53-0026-W	River Ranch	Large	Polk SFWMD	0.170	100.0%	0.170	652	261	267
53-00030-W	Lake Wales Utility Company	Large	Polk SFWMD	0.085	100.0%	0.085	1,510	56	57
53-00126-W	Polk County Utilities (Oak Hills)	Large	Polk SFWMD	0.140	100.0%	0.140	265	528	194
341	City of Bartow	Large	Polk SFWMD	2.435	60.1%	1.464	24,706	59	60
587	Lelynn RV Resort	Large	Polk SFWMD	0.016	100.0%	0.016	317	50	50
645	City of Fort Meade	Large	Polk SFWMD	0.496	71.6%	0.355	7,818	45	49
1616	Lake Region Mobile Home Owners	Large	Polk SFWMD	0.074	100.0%	0.074	916	81	93
1625	Four Lakes Golf Club	Large	Polk SFWMD	0.298	60.4%	0.180	1,170	154	179
2332	Lake Hamilton	Large	Polk SFWMD	0.345	42.6%	0.147	1,262	116	134
3415	Orchid Springs Development Corp	Large	Polk SFWMD	0.067	92.5%	0.062	943	66	72
4005	Park Water Company	Large	Polk SFWMD	0.215	71.6%	0.154	3,439	45	41
4607	City of Winter Haven	Large	Polk SFWMD	9.001	59.2%	5.333	73,604	72	79
4658	City of Lake Wales	Large	Polk SFWMD	2.410	68.0%	1.638	23,542	70	72
4912	City of Lakeland Electric and Water	Large	Polk SFWMD	20.147	62.9%	12.676	165,037	77	82
5251	Grenelefe Resort Utility, Inc.	Large	Polk SFWMD	1.123	40.2%	0.452	2,580	175	107
5750	City of Davenport	Large	Polk SFWMD	0.814	84.0%	0.684	6,218	110	94
5870	City of Frostproof	Large	Polk SFWMD	0.372	42.5%	0.158	3,861	41	43
5893	Town of Dundee	Large	Polk SFWMD	0.542	72.1%	0.391	4,862	80	71

Table A-6d-3d. 2015 residential water use and five-year residential per capita averages for all Polk County public supply permittees in the CFWI Planning Area (continued).

CUP Number	Owner	Utility Category	County/ District	2015 Water Use	2015 % Household	2015 Household Use	2015 Population	2015 Residential GPCD	2011 – 2015 Average Residential GPCD
6023	North Pointe HOA	Large	Polk SWFWMD	0.018	100%	0.01	144	125	126
6124	City of Mulberry	Large	Polk SWFWMD	0.389	50.4%	0.196	4,290	46	84
6174	Saddlebag Lake Resort	Large	Polk SWFWMD	0.086	96.5%	0.083	684	121	133
6505	Polk County Utilities - NWRSA	Large	Polk SWFWMD	2.491	89.0%	2.216	42,656	52	52
6506	Polk County Utilities - SWRSA	Large	Polk SWFWMD	3.113	89.1%	2.774	42,610	65	69
6507	Polk County Utilities - CRSA	Large	Polk SWFWMD	1.003	78.7%	0.789	15,593	51	52
6508	Polk County Utilities - SERSA	Large	Polk SWFWMD	0.542	42.3%	0.229	6,143	37	45
6509	Polk County Utilities - NERSA	Large	Polk SWFWMD	6.696	86.6%	5.798	35,936	161	135
6624	City of Lake Alfred	Large	Polk SWFWMD	1.023	75.5%	0.772	8,663	89	97
6920	City of Eagle Lake	Large	Polk SWFWMD	0.316	49.4%	0.156	4,447	35	50
7119	City of Auburndale	Large	Polk SWFWMD	4.556	50.4%	2.294	33,529	68	70
7187	CHCVII Lake Henry MHP	Large	Polk SWFWMD	0.225	43.1%	0.097	1,249	78	131
7328	Carefree RV Country Club	Large	Polk SWFWMD	0.079	67.1%	0.053	876	61	93
7878	Aqua Utilities Florida, Inc. - Lake Gibson	Large	Polk SWFWMD	0.151	79.5%	0.120	1,898	63	64
8054	Polk County Utilities - ERSAs	Large	Polk SWFWMD	0.435	70.3%	0.306	6,525	47	44
8344	CHCIII Swift Village MHP	Large	Polk SWFWMD	0.104	78.8%	0.082	923	89	175
8468	City of Polk City	Large	Polk SWFWMD	0.357	68.9%	0.246	7,614	32	36
8522	City of Haines City	Large	Polk SWFWMD	4.350	66.8%	2.907	26,020	112	126

Table A-6d-3d. 2015 residential water use and five-year residential per capita averages for all Polk County public supply permittees in the CFWI Planning Area (continued).

CUP Number	Owner	Utility Category	County/ District	2015 Water Use	2015 % Household	2015 Household Use	2015 Population	2015 Residential GPCD	2011-2015 Average Residential GPCD
8967	Sweetwater Community LLC	Large	Polk SFWMD	0.121	30.6%	0.037	525	70	172
10141	Ovation Water Production Facility	Large	Polk SFWMD	0.000	N/A	0.000	1	0	0
12964	Alafia Preserve LLC; Eagle Ridge LLC; and Donaldson	Large	Polk SFWMD	0.000	N/A	0.000	79	0	256
13043	Utilities, Inc - Cypress Lakes Utilities Inc.	Large	Polk SFWMD	0.174	75.3%	0.131	2,778	47	56
53-00088-W	Camp Mack	Small	Polk SFWMD	0.058	100.0%	0.058	N/A	N/A	N/A
53-00150-W	Indian Lake Utilities	Small	Polk SFWMD	0.070	100.0%	0.070	376	186	190
53-00152-W	Lake Kissimmee Mobile Home Park	Small	Polk SFWMD	0.012	100.0%	0.012	87	138	492
53-00172-W	Breeze Hill Utilities	Small	Polk SFWMD	0.054	100.0%	0.054	144	375	131
53-00185-W	Camp Mary Mobile Home Park	Small	Polk SFWMD	0.002	100.0%	0.002	N/A	N/A	N/A
53-00247-W	Bannon Fishing Resort	Small	Polk SFWMD	0.001	100.0%	0.001	N/A	N/A	N/A
53-00254-W	The Harbor RV Resort and Marina	Small	Polk SFWMD	0.033	100.0%	0.033	95	347	540
53-00266-W	Camp Rosalie	Small	Polk SFWMD	0.009	100.0%	0.009	N/A	N/A	N/A
53-00271-W	Shady Oaks Limited Use WTF	Small	Polk SFWMD	0.000	100.0%	0.000	4	0	0
53-00286-W	Wounded Veterans Hunt Camp	Small	Polk SFWMD	0.001	100.0%	0.001	N/A	N/A	N/A
53-00294-W	Coleman Landings	Small	Polk SFWMD	0.006	100.0%	0.006	N/A	N/A	N/A
002083	Alturas Utilities LLC	Small	Polk SFWMD	0.023	100.0%	0.023	237	97	98
002410	Scenic View Mobile Home Park	Small	Polk SFWMD	0.009	100.0%	0.009	76	118	115
002449	Lake Henry Estates	Small	Polk SFWMD	0.047	100.0%	0.047	424	111	111
003214	Sunrise Water Company	Small	Polk SFWMD	0.028	100.0%	0.028	650	43	54

Table A-6d-3d. 2015 residential water use and five-year residential per capita averages for all Polk County public supply permittees in the CFWI Planning Area (continued).

CUP Number	Owner	Utility Category	County/District	2015 Water Use	2015 % Household	2015 Household Use	2015 Population	2015 Residential GPCD	2011-2015 Average Residential GPCD
004175	Rainbow Chase RV Resort	Small	Polk SFWMD	0.026	100.0%	0.026	130	200	198
004441	Spring Hill Estates Mobile Home Park	Small	Polk SFWMD	0.041	100.0%	0.041	584	70	70
004479	Valhalla HOA Inc	Small	Polk SFWMD	0.024	100.0%	0.024	108	222	221
005868	Rainbow Resort	Small	Polk SFWMD	0.035	100.0%	0.035	130	269	347
006105	United Mc LLC	Small	Polk SFWMD	0.006	100.0%	0.006	71	85	83
006119	Lucerne Lakeside MHP	Small	Polk SFWMD	0.016	100.0%	0.016	277	58	60
006152	Lakeside Ranch Investment Corp	Small	Polk SFWMD	0.020	100.0%	0.020	324	62	62
006156	Kathleen Oak Mobile Home Park	Small	Polk SFWMD	0.002	100.0%	0.002	15	133	146
006208	Whispering Pines of Frostproof LLC	Small	Polk SFWMD	0.015	100.0%	0.015	154	97	141
006308	La Casa De Lake Wales	Small	Polk SFWMD	0.009	100.0%	0.009	152	59	57
006314	Twin Fountains	Small	Polk SFWMD	0.028	100.0%	0.028	385	73	73
006495	Christmas Tree Trailer Park	Small	Polk SFWMD	0.012	100.0%	0.012	151	79	80
006597	Towerwood Mobile Home Park	Small	Polk SFWMD	0.052	100.0%	0.052	627	83	83
006679	Keen Sales Rentals & Utilities	Small	Polk SFWMD	0.011	100.0%	0.011	274	40	41
006893	Hidden Cove Ltd	Small	Polk SFWMD	0.017	100.0%	0.017	186	91	91
007172	McLeod Gardens	Small	Polk SFWMD	0.019	100.0%	0.019	236	81	82
007315	Camp Inn Resort	Small	Polk SFWMD	0.020	100.0%	0.020	1,317	15	20
007333	Sunlake Terrace Estates	Small	Polk SFWMD	0.048	100.0%	0.048	219	219	222
007557	Lakemont Ridge Home & RV Park	Small	Polk SFWMD	0.015	100.0%	0.015	320	47	46

Table A-6d-3d. 2015 residential water use and five-year residential per capita averages for all Polk County public supply permittees in the CFWI Planning Area (continued).

CUP Number	Owner	Utility Category	County/ District	2015 Water Use	2015 % Household	2015 Household Use	2015 Population	2015 Residential GPCD	2011-2015 Average Residential GPCD
007653	Orange Hill-Sugar Creek Service Area	Small	Polk SFWMD	0.037	100.0%	0.037	563	66	84
007703	Orange Acres Ranch	Small	Polk SFWMD	0.030	100.0%	0.030	152	197	196
008285	Mouse Mountain Inc	Small	Polk SFWMD	0.016	100.0%	0.016	255	63	64
008370	Doans Mobile Home Park	Small	Polk SFWMD	0.006	100.0%	0.006	51	118	114
008399	Three Worlds Resort	Small	Polk SFWMD	0.015	100.0%	0.015	468	32	39
008536	Woodland Lakes Creative	Small	Polk SFWMD	0.034	100.0%	0.034	240	142	144
008684	Good Life Resort Inc	Small	Polk SFWMD	0.015	100.0%	0.015	677	22	29
008753	Plantation Landings	Small	Polk SFWMD	0.060	100.0%	0.060	597	101	102
009128	Pinecrest	Small	Polk SFWMD	0.032	100.0%	0.032	349	92	117
009336	Gibsonia Estates	Small	Polk SFWMD	0.044	100.0%	0.044	418	105	106
009341	Sunshine Foundation Dream Village	Small	Polk SFWMD	0.010	100.0%	0.010	20	500	500
009557	Southern Pines RV & MHP Resort	Small	Polk SFWMD	0.034	100.0%	0.034	347	98	124
009569	Keen Sales & Rentals Inc.	Small	Polk SFWMD	0.007	100.0%	0.007	196	36	35
009807	Village of Highland Park	Small	Polk SFWMD	0.016	100.0%	0.016	210	76	96
009835	Van Lakes HOA	Small	Polk SFWMD	0.022	100.0%	0.022	208	106	107
012655	Florida Camp Inn	Small	Polk SFWMD	0.044	100.0%	0.044	460	96	97
012800	Jordan's Grove Development	Small	Polk SFWMD	0.047	100.0%	0.047	0	N/A	N/A
012899	Athena Cypress; LLC d/b/a Cypress Campground & RV	Small	Polk SFWMD	0.000	100.0%	0.000	142	0	0

Table A-6d-3d. 2015 residential water use and five-year residential per capita averages for all Polk County public supply permittees in the CFWI Planning Area (continued).

CUP Number	Owner	Utility Category	County/ District	2015 Water Use	2015% Household	2015 Household Use	2015 Population	2015 Residential GPCD	2011-2015 Average Residential GPCD
013167	The Preserve	Small	Polk SFWMD	0.000	100.0%	0.000	0	N/A	N/A
020598	Porridge Investments	Small	Polk SFWMD	0.017	100.0%	0.017	258	66	66
Polk County Total				70.965	69.7%	49.469	604,139	82	85

Table A-6d-3e. 2015 residential water use and five-year residential per capita averages for all Seminole County public supply permittees in the CFWI Planning Area.

CUP Number	Owner	Utility Category	County/ District	2015 Water Use	2015% Household	2015 Household Use	2015 Population	2015 Residential GPCD	2011-2015 Average Residential GPCD
160	Sanlando Utilities Corp.	Large	Seminole SJRWMD	6.830	76.0%	5.191	35,640	146	136
162	City of Sanford	Large	Seminole SJRWMD	6.572	57.7%	3.792	66,191	57	58
3766	City of Altamonte Springs	Large	Seminole SJRWMD	0.081	67.8%	0.055	521	106	104
3769	City of Altamonte Springs	Small	Seminole SJRWMD	0.043	100.0%	0.043	53	811	811
8213, 8356, 8359, 8361, 95581	Seminole County Environmental Services	Large	Seminole SJRWMD	16.269	67.8%	11.030	119,950	92	95
8238	City of Winter Springs	Large	Seminole SJRWMD	3.416	87.2%	2.979	34,910	85	90
8252	City of Oviedo	Large	Seminole SJRWMD	3.913	78.0%	3.052	36,704	83	86
8266	Palm Valley Manufactured Home Community	Large	Seminole SJRWMD	0.070	83.0%	0.058	2,196	26	28
8271	Mullet Lake Water Association Inc	Large	Seminole SJRWMD	0.054	95.0%	0.051	784	65	67
8274	City of Longwood	Large	Seminole SJRWMD	1.678	78.9%	1.324	13,192	100	109
8282	City of Lake Mary	Large	Seminole SJRWMD	3.123	42.0%	1.312	14,848	88	90
8284	City of Casselberry	Large	Seminole SJRWMD	4.644	88.3%	4.101	46,915	87	83
8345	Utilities Inc. of Florida	Large	Seminole SJRWMD	0.168	88.8%	0.149	522	285	137
8346	Utilities Inc. of Florida	Large	Seminole SJRWMD	0.198	88.8%	0.176	2,612	67	73
8352	Utilities Inc. of Florida	Large	Seminole SJRWMD	0.095	81.5%	0.077	919	84	67

Table A-6d-3e. 2015 residential water use and five-year residential per capita averages for all Seminole County public supply permittees in the CFWI Planning Area (continued).

CUP Number	Owner	Utility Category	County/ District	2015 Water Use	2015 % Household	2015 Household Use	2015 Population	2015 Residential GPCD	2011-2015 Average Residential GPCD
8362	FGUA	Large	Seminole SJRWMD	0.505	80.0%	0.404	4,984	81	77
8372	City of Altamonte Springs	Large	Seminole SJRWMD	5.680	71.0%	4.033	48,255	84	79
SJ_S- TCRV_FA33	Town and Country RV Resort	Small	Seminole SJRWMD	0.015	100.0%	0.015	14	1,071	1100
SJ_S- SHP_FA32	Spring Hammock MHP	Small	Seminole SJRWMD	0.001	100.0%	0.001	158	6	27
8229	Lake Harney Water Assoc Inc	Small	Seminole SJRWMD	0.046	87.9%	0.040	505	79	76
8347	Utilities Inc. of Florida	Small	Seminole SJRWMD	0.078	91.0%	0.071	704	101	86
8348	Utilities Inc. of Florida	Small	Seminole SJRWMD	0.070	88.0%	0.062	569	109	79
8349	Utilities Inc. of Florida	Small	Seminole SJRWMD	0.022	86.0%	0.019	104	183	126
8350, 8351	Utilities Inc. of Florida	Small	Seminole SJRWMD	0.040	84.1%	0.034	667	51	51
8353	Utilities Inc. of Florida	Small	Seminole SJRWMD	0.034	88.0%	0.030	298	101	67
8357	Aqua Utilities Florida Inc	Small	Seminole SJRWMD	0.013	89.0%	0.012	138	87	69
8462	Seminole Woods Assoc	Small	Seminole SJRWMD	0.107	69.6%	0.074	562	132	198
50281	City of Altamonte Springs	Large	Seminole SJRWMD	0.321	93.0%	0.299	5,019	60	74
50932	Twelve Oaks - Thomas Vellanti	Small	Seminole SJRWMD	0.014	78.0%	0.011	616	18	26
Seminole County Total				54.100	71.2%	38.495	438,550	88	88

Notes for Table A-6d-3a-3e:

- 1.) All water use is shown in million gallons per day (mgd).
- 2.) Rounding errors account for nominal discrepancies.
- 3.) 2011-2015 water use obtained from ECCTX model, SJRWMD EN-50, AWUS, DEP MOR, and USGS data.
- 4.) 2011-2015 population obtained from BEBR estimates of population for CFWI RWSP.
- 5.) Percent household use obtained from consumptive use permits, published water use reports, and utility data where available.

Table A-6e. 2011-2015 water use, population served, and 5-year gross per capita averages for small public supply systems (less than 0.10 mgd) in the CFWI Planning Area.

CUP Number	Utility	Water Use					Population					2011-2015 Avg GPCD
		2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	
SJ_TVMP1_FA29	Timber Village Mobile Home Pk	0.021	0.020	0.020	0.020	0.013	217	216	216	216	217	87
2565	Hometown America	0.068	0.046	0.142	0.146	0.080	592	590	590	591	593	163
2847	Vacation Village Condominium Association	0.024	0.031	0.029	0.030	0.055	443	442	442	442	444	76
2890	Monteverde Mobile Home Subd Assn Inc	0.031	0.030	0.032	0.033	0.033	641	639	639	643	648	50
2893	Torch Lite MHP LLC	0.011	0.013	0.014	0.011	0.019	214	213	213	213	214	64
2927	Four Winds Ecclesia	0.000	0.100	0.100	0.100	0.040	N/A	N/A	N/A	N/A	N/A	N/A
2989	Citrus Cove Homeowners Assoc	0.022	0.023	0.017	0.019	0.031	116	116	116	116	117	193
4487	Edgewater Beach	0.005	0.005	0.005	0.005	0.005	85	84	85	91	96	57
10846	Barrington Estates	0.144	0.144	0.144	0.144	0.000	2	2	2	2	2	57,600
50218	Highlands MHP and Sales Inc	0.018	0.016	0.020	0.018	0.030	148	147	147	147	148	138
50307	Lake-Ulmerton Corporation	0.021	0.025	0.028	0.031	0.050	543	541	541	542	544	57
SJRWMD Lake (CFWI) County Total		0.365	0.453	0.551	0.557	0.356	3,001	2,990	2,991	3,003	3,023	152
48-00332-W	Hidden Valley	0.061	0.061	0.061	0.061	0.061	670	677	686	691	691	89
48-00827-W	Orlando Lake Whippoorwill KOA	0.035	0.035	0.035	0.035	0.035	N/A	N/A	N/A	N/A	N/A	N/A
48-00914-W	Moss Park	0.020	0.020	0.020	0.020	0.020	N/A	N/A	N/A	N/A	N/A	N/A
48-00979-W	Barton Lake Mobile Home Park	0.004	0.004	0.004	0.004	0.004	8	8	8	8	8	500
48-00981-W	Lake Whippoorwill Mobile Home Park	0.004	0.004	0.004	0.004	0.004	99	100	101	101	102	40
48-01035-W	Raccoon Lake Camp Resort	0.001	0.001	0.001	0.001	0.001	N/A	N/A	N/A	N/A	N/A	N/A
SFWMD Orange County Total		0.125	0.125	0.125	0.125	0.125	777	785	795	800	801	158
3236	Ola Beach Improvement Assoc.	0.029	0.036	0.040	0.023	0.030	208	210	212	214	214	149
3299	Trimble Park	0.002	0.005	0.005	0.005	0.005	N/A	N/A	N/A	N/A	N/A	N/A
3322	Forty Acres Holding Co	0.003	0.003	0.000	0.000	0.000	0	0	0	0	0	N/A
3370	Orange Blossom RV Resort LLC	0.003	0.004	0.005	0.004	0.011	145	147	148	150	150	36
4611	Valencia Estates Apopka LLC	0.014	0.013	0.013	0.015	0.036	306	309	313	315	315	58
7673	The Valley Mobile Home Park	0.057	0.063	0.054	0.056	0.080	315	318	322	325	325	193
148768	Brightwood Manor MHP	0.059	0.059	0.059	0.059	0.059	644	649	656	669	669	90
SJRWMD Orange County Total		0.167	0.183	0.176	0.162	0.221	1,618	1,633	1,651	1,673	1,673	110
49-00450-W	Cypress Lake Fish Camp and RV Park	0.016	0.016	0.016	0.016	0.016	N/A	N/A	N/A	N/A	N/A	N/A
49-00701-W	Merry D RV Sanctuary	0.006	0.006	0.006	0.006	0.010	N/A	N/A	N/A	N/A	N/A	N/A
49-00914-W	Colonial Mobile Home Park	0.014	0.014	0.014	0.014	0.014	165	167	169	171	175	83
49-00937-W	Orange Grove Campground	0.013	0.013	0.013	0.013	0.013	N/A	N/A	N/A	N/A	N/A	N/A
49-00941-W	Lake Runnymede Mobile Home Park	0.039	0.037	0.023	0.031	0.038	196	199	202	204	209	166

Table A-6e. 2011-2015 water use, population served, and 5-year gross per capita averages for small public supply systems (less than 0.10 mgd) in the CFWI Planning Area (continued).

CUP Number	Utility	Water Use					Population					2011-2015 Avg GPCD
		2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	
49-00961-W	Cypress Cove	0.062	0.062	0.062	0.062	0.062	584	590	599	607	620	103
49-01205-W	Sharp's Mobile Home Park	0.010	0.010	0.010	0.010	0.009	214	217	220	223	227	45
49-01780-W	Lake Marian Shores	0.018	0.018	0.018	0.018	0.018	5	5	5	5	5	3,600
49-01992-W	Canoe Creek Campground	0.032	0.032	0.032	0.032	0.032	178	178	178	178	178	180
49-01995-W	Boggy Creek Resort and RV Park	0.038	0.038	0.038	0.038	0.038	N/A	N/A	N/A	N/A	N/A	N/A
49-01996-W	Lake Toho Resort	0.066	0.066	0.066	0.066	0.066	27	28	28	28	29	2,357
49-02045-W	Kings Mobile Home Park	0.008	0.008	0.008	0.008	0.008	41	42	42	43	44	189
53-00185-W	Camp Mary Mobile Home Park	0.000	0.000	0.000	0.000	0.000	11	11	11	11	11	N/A
SFWMDC Osceola County Total		0.322	0.320	0.306	0.314	0.324	1,421	1,437	1,454	1,470	1,498	218
53-00088-W	Camp Mack	0.064	0.064	0.064	0.064	0.058	N/A	N/A	N/A	N/A	N/A	N/A
53-00150-W	Indian Lake Utilities	0.063	0.098	0.058	0.065	0.070	371	370	371	373	376	190
53-00152-W	Lake Kissimmee Mobile Home Park	0.050	0.050	0.050	0.050	0.012	86	86	86	86	87	492
53-00172-W	Breeze Hill Utilities	0.010	0.010	0.010	0.010	0.054	142	142	142	143	144	132
53-00185-W	Camp Mary Mobile Home Park	0.002	0.002	0.002	0.002	0.002	N/A	N/A	N/A	N/A	N/A	N/A
53-00247-W	Bannon Fishing Resort	0.000	0.000	0.000	0.000	0.001	N/A	N/A	N/A	N/A	N/A	N/A
53-00254-W	The Harbor RV Resort and Marina	0.033	0.033	0.033	0.033	0.033	40	40	94	94	95	455
53-00266-W	Camp Rosalie	0.009	0.009	0.009	0.009	0.009	N/A	N/A	N/A	N/A	N/A	N/A
53-00271-W	Shady Oaks Limited Use WTF	0.000	0.000	0.000	0.000	0.000	4	4	4	4	4	0
53-00286-W	Wounded Veterans Hunt Camp	0.001	0.001	0.001	0.001	0.001	N/A	N/A	N/A	N/A	N/A	N/A
53-00294-W	Coleman Landings	0.006	0.006	0.006	0.006	0.006	N/A	N/A	N/A	N/A	N/A	N/A
SFWMDC Polk County Total		0.238	0.273	0.233	0.240	0.246	643	642	697	700	706	363
002083	Alturas Utilities LLC	0.024	0.019	0.021	0.028	0.023	234	234	234	236	237	98
002410	Scenic View Mobile Home Park	0.009	0.007	0.008	0.010	0.009	75	74	75	75	76	115
002449	Lake Henry Estates	0.059	0.014	0.054	0.060	0.047	419	418	419	421	424	111
002656	Circle B	0.001	0.001	0.001	0.002	0.002	N/A	N/A	N/A	N/A	N/A	N/A
003214	Sunrise Water Company	0.037	0.037	0.036	0.037	0.028	642	640	642	646	650	54
004175	Rainbow Chase RV Resort	0.027	0.021	0.023	0.031	0.026	129	129	129	129	130	198
004441	Spring Hill Estates Mobile Home Park	0.052	0.008	0.049	0.054	0.041	577	576	577	580	584	70
004479	Valhalla HOA Inc	0.025	0.019	0.021	0.029	0.024	106	106	106	107	108	221
005868	Rainbow Resort	0.048	0.048	0.046	0.047	0.035	129	128	129	129	130	347

Table A-6e. 2011-2015 water use, population served, and 5-year gross per capita averages for small public supply systems (less than 0.10 mgd) in the CFWI Planning Area (continued).

CUP Number	Utility	Water Use					Population					2011-2015 Avg GPCD
		2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	
006105	United Mc LLC	0.006	0.005	0.005	0.007	0.006	70	70	70	70	71	83
006119	Lucerne Lakeside MHP	0.017	0.013	0.015	0.020	0.016	257	258	271	274	277	61
006152	Lakeside Ranch Investment Corp	0.021	0.016	0.018	0.024	0.020	319	318	320	322	324	62
006156	Kathleen Oak Mobile Home Park	0.002	0.002	0.002	0.003	0.002	15	15	15	15	15	147
006208	Whispering Pines of Frostproof LLC	0.014	0.013	0.014	0.019	0.015	69	69	152	153	154	126
006308	La Casa De Lake Wales	0.009	0.007	0.008	0.010	0.009	150	150	151	151	152	57
006314	Twin Fountains	0.029	0.022	0.025	0.034	0.028	378	377	379	383	385	73
006495	Christmas Tree Trailer Park	0.013	0.010	0.011	0.014	0.012	149	149	150	150	151	80
006597	Towerwood Mobile Home Park	0.062	0.022	0.057	0.066	0.052	620	618	620	623	627	83
006679	Keen Sales Rentals & Utilities	0.012	0.009	0.010	0.014	0.011	271	270	271	272	274	41
006893	Hidden Cove Ltd	0.018	0.014	0.015	0.020	0.017	183	183	183	184	186	91
007172	McLeod Gardens	0.020	0.016	0.017	0.023	0.019	230	230	233	234	236	82
007315	Camp Inn Resort	0.027	0.027	0.026	0.027	0.020	1,317	1,317	1,317	1,317	1,317	19
007333	Sunlake Terrace Estates	0.065	0.002	0.062	0.064	0.048	216	216	216	218	219	222
007557	Lakemont Ridge Home & RV Park	0.019	0.001	0.019	0.019	0.015	316	315	316	318	320	46
007653	Orange Hill-Sugar Creek Service Area	0.050	0.048	0.047	0.049	0.037	549	548	550	553	563	84
007703	Orange Acres Ranch	0.031	0.024	0.027	0.036	0.030	151	150	151	151	152	196
007848	Oak Harbor	0.012	0.012	0.014	0.014	0.012	230	230	230	231	232	56
008285	Mouse Mountain Inc	0.017	0.013	0.015	0.020	0.016	252	251	252	253	255	64
008370	Doans Mobile Home Park	0.006	0.005	0.005	0.007	0.006	51	51	51	51	51	114
008399	Three Worlds Resort	0.015	0.017	0.021	0.022	0.015	462	461	462	465	468	39
008536	Woodland Lakes Creative	0.036	0.028	0.031	0.042	0.034	237	237	237	239	240	144
008684	Good Life Resort Inc	0.021	0.020	0.020	0.020	0.015	669	667	669	673	677	29
008753	Plantation Landings	0.066	0.063	0.056	0.056	0.060	590	589	590	593	597	102
009128	Pinecrest	0.043	0.042	0.041	0.043	0.032	342	341	345	346	349	117
009336	Gibsonia Estates	0.026	0.041	0.046	0.062	0.044	411	411	412	416	418	106
009341	Sunshine Foundation Dream Village	0.011	0.008	0.009	0.012	0.010	20	20	20	20	20	500
009557	Southern Pines RV & MHP Resort	0.046	0.045	0.044	0.045	0.034	343	342	343	345	347	124
009569	Keen Sales & Rentals Inc.	0.007	0.005	0.006	0.008	0.007	183	184	187	192	196	35
009807	Village of Highland Park	0.022	0.021	0.021	0.021	0.016	207	209	210	213	210	96

Table A-6e. 2011-2015 water use, population served, and 5-year gross per capita averages for small public supply systems (less than 0.10 mgd) in the CFWI Planning Area (continued).

CUP Number	Utility	Water Use					Population					2011-2015 Avg GPCD
		2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	
009835	Van Lakes HOA	0.023	0.018	0.020	0.027	0.022	205	205	205	207	208	107
012655	Florida Camp Inn	0.047	0.036	0.040	0.054	0.044	454	453	454	457	460	97
012800	Jordan's Grove Development	0.064	0.062	0.061	0.063	0.047	0	0	0	0	0	N/A
012899	Athena Cypress; LLC d/b/a Cypress Campground & RV	0.000	0.000	0.000	0.000	0.000	140	140	140	141	142	0
013167	The Preserve	0.000	0.000	0.000	0.000	0.000	0	0	0	0	0	N/A
020598	Porrige Investments LLC	0.016	0.017	0.017	0.017	0.017	255	254	255	256	258	66
SWFWMD Polk County Total		1.175	0.878	1.104	1.280	1.023	12,622	12,603	12,738	12,809	12,890	86
SJ_S-TCRV_FA33	Town and Country RV Resort	0.017	0.015	0.015	0.015	0.015	14	14	14	14	14	1,100
SJ_S-SHP_FA32	Spring Hammock MHP	0.005	0.005	0.005	0.005	0.001	157	158	157	158	158	27
8229	Lake Harney Water Assoc Inc	0.052	0.032	0.040	0.039	0.046	497	498	500	501	505	84
8347	Utilities Inc. of Florida	0.062	0.065	0.063	0.058	0.078	698	699	700	702	704	93
8348	Utilities Inc. of Florida	0.029	0.053	0.054	0.046	0.070	566	567	566	567	569	89
8349	Utilities Inc. of Florida	0.012	0.014	0.014	0.014	0.022	103	103	103	103	104	147
8350, 8351	Utilities Inc. of Florida	0.054	0.050	0.043	0.013	0.040	663	665	663	665	667	60
8353	Utilities Inc. of Florida	0.018	0.022	0.023	0.016	0.034	297	297	297	298	298	76
8357	Aqua Utilities Florida Inc	0.010	0.010	0.010	0.009	0.013	137	137	137	137	138	76
8462	Seminole Woods Assoc	0.085	0.055	0.267	0.275	0.107	546	552	551	555	562	285
50932	Twelve Oaks - Thomas Vellanti	0.026	0.021	0.020	0.020	0.014	612	613	612	614	616	33
SJRWMD Seminole County Total		0.370	0.342	0.554	0.510	0.440	4,290	4,303	4,300	4,314	4,335	103
SFWMD Total		0.685	0.718	0.664	0.679	0.695	2,841	2,864	2,946	2,970	3,005	235
SJRWMD Total		0.902	0.978	1.281	1.229	1.017	8,909	8,926	8,942	8,990	9,031	121
SWFWMD Total		1.175	0.878	1.104	1.280	1.023	12,622	12,603	12,738	12,809	12,890	86
CFWI Total		2.762	2.574	3.049	3.188	2.735	24,372	24,393	24,626	24,769	24,926	116

Notes for Table A-6e:

- 1.) All water use is shown in million gallons per day.
- 2.) Rounding errors account for nominal discrepancies.
- 3.) 2011-2015 water use obtained from ECCTX model, SJRWMD EN-50, AWUS, DEP MOR, and USGS data.
- 4.) 2011-2015 population obtained from BEBR estimates of population for CFWI RWSP.

Table A-7a-1. Agricultural irrigation self-supply water use, miscellaneous agricultural water use and acreage for 2015, 5-in-10 year water demand projections for 2020-2040, acreage projections for 2020-2040, 1-in-10 year water demand projections for 2040 by county in the CFWI Planning Area.

County/ District	Water Use			Demand Projections (5-in-10)															Percent Change (Demand) 2015 -2040
	2015			2020			2025			2030			2035			2040			
	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	
Lake - CFWI SJRWMD	12.46	0.56	13.02	11.50	0.52	12.02	10.92	0.49	11.41	10.28	0.46	10.74	9.62	0.43	10.05	8.74	0.39	9.13	-30%
Lake - CFWI SWFWMD	0.67	0.00	0.67	0.68	0.00	0.68	0.62	0.00	0.62	0.64	0.00	0.64	0.56	0.00	0.56	0.57	0.00	0.57	-15%
Lake - CFWI Total	13.13	0.56	13.69	12.18	0.52	12.70	11.54	0.49	12.03	10.92	0.46	11.38	10.18	0.43	10.61	9.31	0.39	9.70	-29%
Orange - SFWMD	0.99	0.10	1.09	0.99	0.10	1.09	1.00	0.10	1.10	1.04	0.10	1.14	1.05	0.11	1.16	1.08	0.11	1.19	9%
Orange - SJRWMD	7.08	0.21	7.29	7.11	0.21	7.32	7.26	0.22	7.48	7.42	0.22	7.64	7.59	0.23	7.82	7.79	0.23	8.02	10%
Orange - Total	8.07	0.31	8.38	8.10	0.31	8.41	8.26	0.32	8.58	8.46	0.32	8.78	8.64	0.34	8.98	8.87	0.34	9.21	10%
Osceola - SFWMD	17.86	2.22	20.08	18.16	2.26	20.42	18.65	2.32	20.97	19.29	2.40	21.69	20.10	2.50	22.60	21.01	2.61	23.62	18%
Osceola - SJRWMD	4.67	0.26	4.93	4.97	0.28	5.25	5.44	0.30	5.74	5.84	0.33	6.17	6.05	0.34	6.39	6.15	0.34	6.49	32%
Osceola - Total	22.53	2.48	25.01	23.13	2.54	25.67	24.09	2.62	26.71	25.13	2.73	27.86	26.15	2.84	28.99	27.16	2.95	30.11	20%
Polk - SFWMD	3.63	0.68	4.31	3.64	0.68	4.32	3.69	0.69	4.38	3.74	0.70	4.44	3.67	0.69	4.36	3.76	0.70	4.46	3%
Polk - SWFWMD	79.27	2.56	81.83	78.30	2.53	80.83	77.85	2.51	80.36	78.15	2.52	80.67	78.81	2.55	81.36	79.06	2.55	81.61	0%
Polk - Total	82.90	3.24	86.14	81.94	3.21	85.15	81.54	3.20	84.74	81.89	3.22	85.11	82.48	3.24	85.72	82.82	3.25	86.07	0%
Seminole - SJRWMD	3.16	0.00	3.16	2.85	0.00	2.85	2.36	0.00	2.36	2.12	0.00	2.12	1.86	0.00	1.86	1.59	0.00	1.59	-50%
SFWMD Total	22.48	3.00	25.48	22.79	3.04	25.83	23.34	3.11	26.45	24.07	3.20	27.27	24.82	3.30	28.12	25.85	3.42	29.27	15%
SJRWMD Total	27.37	1.03	28.40	26.43	1.01	27.44	25.98	1.01	26.99	25.66	1.01	26.67	25.12	1.00	26.12	24.27	0.96	25.23	-11%
SWFWMD Total	79.94	2.56	82.50	78.98	2.53	81.51	78.47	2.51	80.98	78.79	2.52	81.31	79.37	2.55	81.92	79.63	2.55	82.18	0%
CFWI Total	129.79	6.59	136.38	128.20	6.58	134.78	127.79	6.63	134.42	128.52	6.73	135.25	129.31	6.85	136.16	129.75	6.93	136.68	0%

Table A-7a-1. Agricultural irrigation self-supply water use, miscellaneous agricultural water use and acreage for 2015, 5-in-10 year water demand projections for 2020-2040, acreage projections for 2020-2040, 1-in-10 year water demand projections for 2040 by county in the CFWI Planning Area (continued).

County/ District	Water Use			Demand Projections (5-in-10)															Percent Change (Demand) 2015-2040
	2015			2020			2025			2030			2035			2040			
	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	
North Ranch Section Plan Updates																			
Osceola North Ranch Sector Plan Projections - SJRWMD	13.50	9.50	23.00	16.00	9.50	25.50	17.30	9.50	26.80	18.60	9.50	28.10	19.90	9.50	29.40	21.10	9.50	30.70	N/A
FSAID IV Projections - North Ranch Sector Plan Area - SJRWMD	0.00	0.00	0.00	3.09	0.00	3.09	3.33	0.00	3.33	3.69	0.00	3.69	3.84	0.00	3.84	3.89	0.00	3.89	N/A
Updated Osceola – SJRWMD Total	18.17	9.76	27.93	17.88	9.78	27.66	19.41	9.80	29.21	20.75	9.83	30.58	22.11	9.84	31.95	23.36	9.84	33.30	19%
Updated Osceola - Total	36.03	11.98	48.01	36.04	12.04	48.08	38.06	12.12	50.18	40.04	12.23	52.27	42.21	12.34	54.55	44.37	12.45	56.92	19%
Updated SJRWMD Total	40.87	10.53	51.40	39.34	10.51	49.85	39.95	10.51	50.46	40.57	10.51	51.08	41.18	10.50	51.68	41.48	10.46	52.04	1%
Updated CFWI Total	143.29	16.09	159.38	141.11	16.08	157.19	141.76	16.13	157.89	143.43	16.23	159.66	145.37	16.35	161.72	146.96	16.43	163.49	3%

Notes for Table A-7a-1.

- 1.) All water use is shown in million gallons per day (mgd).
- 2.) Rounding errors account for nominal discrepancies.
- 3.) 2015 estimated irrigated acres and water use derived from FSAID IV AG layer, deliverable dated July 2017 from The Balmoral Group as Florida Department of Agriculture and Consumer Services representative. 2015 water use for the SJRWMD portion of Osceola County was changed to reflect actual estimate of water use to account for FSAID IV under estimation.
- 4.) 2020-2040 acreage projections and 2020-2040 average and 1-in-10 water demand projections derived from FSAID IV AG layer, from The Balmoral Group as Florida Department of Agriculture and Consumer Services representative.
- 5.) 2020-2040 groundwater / surface water split estimated using 2015 ratios.
- 6.) FSAID IV Agricultural demands for SJRWMD portion of Osceola County updated to reflect requirements of approved North Ranch Sector Plan in Osceola County portion of SJRWMD.
- 7.) Water demand projections for the North Ranch Sector Plan are representative of 2-in-10 year demand conditions.
- 8.) Updated Osceola – SJRWMD values are calculated by subtracting the estimated water use from FSAID IV Projections within the NRSP Area from the FSAID IV Projections for Osceola County SJRWMD and adding the water use of the NRSP Projections.

Table A-7b-1. Agricultural irrigation self-supply water use (including miscellaneous water use) and acreage for 2015, 5-in-10 year water demand projections and acreage projections for 2020-2040, 1-in-10 year water demand projections for 2040 by crop category by county in the CFWI Planning Area.

County/ District	Crop Category	2015 Estimated Agriculture		2020 Projected Agriculture		2025 Projected Agriculture		2030 Projected Agriculture		2035 Projected Agriculture		2040 Projected Agriculture		Percent Change 2015-2040		2040 (1-in-10) Demand
		Acres	MGD	Acres	MGD	Acreage	MGD									
Lake – (CFWI) SJRWMD	Citrus	6,336	7.05	5,937	6.63	5,527	6.25	4,895	5.64	4,526	5.31	3,979	4.74	-37%	-33%	7.49
	Field Crops	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Fruit (Non-citrus)	202	0.38	202	0.38	202	0.39	202	0.40	202	0.41	202	0.42	0%	11%	0.61
	Greenhouse/Nursery	1,981	5.10	1,891	4.71	1,812	4.47	1,788	4.38	1,639	4.00	1,494	3.63	-25%	-29%	4.14
	Hay	58	0.01	58	0.02	58	0.02	58	0.02	58	0.02	58	0.02	0%	100%	0.03
	Potatoes	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Sod	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Sugarcane	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Vegetables (Fresh Market)	299	0.38	137	0.18	137	0.18	137	0.20	137	0.21	137	0.22	-54%	-42%	0.29
	Miscellaneous	0	0.10	0	0.10	0	0.10	0	0.10	0	0.10	0	0.10	N/A	0%	0.10
Total	8,876	13.02	8,225	12.02	7,736	11.41	7,080	10.74	6,562	10.05	5,870	9.13	-34%	-30%	12.66	
Lake – (CFWI) SWFWMD	Citrus	526	0.44	526	0.44	514	0.43	514	0.44	473	0.42	473	0.43	-10%	-2%	0.64
	Field Crops	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Fruit (Non-citrus)	11	0.02	11	0.02	0	0.00	0	0.00	0	0.00	0	0.00	-100%	-100%	0.00
	Greenhouse/Nursery	36	0.09	36	0.09	36	0.09	36	0.09	36	0.08	36	0.08	0%	-11%	0.09
	Hay	73	0.06	73	0.06	34	0.03	34	0.03	34	0.03	34	0.03	-53%	-50%	0.04
	Potatoes	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Sod	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Sugarcane	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Vegetables (Fresh Market)	82	0.05	82	0.06	82	0.06	82	0.07	22	0.02	22	0.02	-73%	-60%	0.03
	Miscellaneous	0	0.01	0	0.01	0	0.01	0	0.01	0	0.01	0	0.01	N/A	0%	0.01
Total	728	0.67	728	0.68	666	0.62	666	0.64	565	0.56	565	0.57	-22%	-15%	0.81	
Lake – (CFWI) Total	Citrus	6,862	7.49	6,463	7.07	6,041	6.68	5,409	6.08	4,999	5.73	4,452	5.17	-35%	-31%	8.13
	Field Crops	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Fruit (Non-citrus)	213	0.40	213	0.40	202	0.39	202	0.40	202	0.41	202	0.42	-5%	5%	0.61
	Greenhouse/Nursery	2,017	5.19	1,927	4.80	1,848	4.56	1,824	4.47	1,675	4.08	1,530	3.71	-24%	-29%	4.23
	Hay	131	0.07	131	0.08	92	0.05	92	0.05	92	0.05	92	0.05	-30%	-29%	0.07
	Potatoes	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Sod	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Sugarcane	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Vegetables (Fresh Market)	381	0.43	219	0.24	219	0.24	219	0.27	159	0.23	159	0.24	-58%	-44%	0.32
	Miscellaneous	0	0.11	0	0.11	0	0.11	0	0.11	0	0.11	0	0.11	N/A	0%	0.11
Total	9,604	13.69	8,953	12.70	8,402	12.03	7,746	11.38	7,127	10.61	6,435	9.70	-33%	-29%	13.47	

Table A-7b-1. Agricultural irrigation self-supply water use (including miscellaneous water use) and acreage for 2015, 5-in-10 year water demand projections and acreage projections for 2020-2040, 1-in-10 year water demand projections for 2040, by crop category by county in the CFWI Planning Area (continued).

County/ District	Crop Category	2015 Estimated Agriculture		2020 Projected Agriculture		2025 Projected Agriculture		2030 Projected Agriculture		2035 Projected Agriculture		2040 Projected Agriculture		Percent Change 2020-2040		2040 (1-in-10) Demand
		Acres	MGD	Acres	MGD	Acreage	MGD									
Orange SFWMD	Citrus	1,026	0.88	1,026	0.89	1,026	0.90	1,050	0.94	1,050	0.96	1,050	0.98	2%	11%	1.41
	Field Crops	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Fruit (Non-citrus)	27	0.04	27	0.04	27	0.04	27	0.04	27	0.04	27	0.05	0%	25%	0.05
	Greenhouse/Nursery	47	0.12	47	0.11	47	0.11	47	0.11	47	0.11	47	0.11	0%	-8%	0.12
	Hay	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Potatoes	0	0.00	1,026	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Sod	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Sugarcane	0	0.00	27	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Vegetables (Fresh Market)	0	0.00	47	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Miscellaneous	0	0.05	0	0.05	0	0.05	0	0.05	0	0.05	0	0.05	N/A	0%	0.05
Total	1,100	1.09	1,100	1.09	1,100	1.10	1,124	1.14	1,124	1.16	1,124	1.19	2%	9%	1.63	
Orange SJRWMD	Citrus	1,923	2.13	1,934	2.14	2,006	2.23	2,012	2.27	2,068	2.36	2,089	2.41	9%	13%	3.80
	Field Crops	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Fruit (Non-citrus)	114	0.22	114	0.22	114	0.22	114	0.23	114	0.23	114	0.24	0%	9%	0.35
	Greenhouse/Nursery	1,308	3.98	1,308	3.87	1,308	3.84	1,308	3.81	1,308	3.79	1,308	3.78	0%	-5%	4.31
	Hay	297	0.06	377	0.13	377	0.15	377	0.15	377	0.15	377	0.15	27%	150%	0.25
	Potatoes	0	0.00	0	0.00	0	0.00	6	0.01	6	0.01	6	0.01	N/A	N/A	0.01
	Sod	0	0.00	0	0.00	0	0.00	11	0.01	11	0.01	11	0.01	N/A	N/A	0.01
	Sugarcane	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Vegetables (Fresh Market)	429	0.68	463	0.74	497	0.82	560	0.94	613	1.05	700	1.20	63%	76%	1.61
	Miscellaneous	0	0.22	0	0.22	0	0.22	0	0.22	0	0.22	0	0.22	N/A	0%	0.22
Total	4,071	7.29	4,196	7.32	4,302	7.48	4,388	7.64	4,497	7.82	4,605	8.02	13%	10%	10.56	
Orange Total	Citrus	2,949	3.01	2,960	3.03	3,032	3.13	3,062	3.21	3,118	3.32	3,139	3.39	6%	13%	5.21
	Field Crops	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Fruit (Non-citrus)	141	0.26	141	0.26	141	0.26	141	0.27	141	0.27	141	0.29	0%	12%	0.40
	Greenhouse/Nursery	1,355	4.10	1,355	3.98	1,355	3.95	1,355	3.92	1,355	3.90	1,355	3.89	0%	-5%	4.43
	Hay	297	0.06	377	0.13	377	0.15	377	0.15	377	0.15	377	0.15	27%	150%	0.25
	Potatoes	0	0.00	0	0.00	0	0.00	6	0.01	6	0.01	6	0.01	N/A	N/A	0.01
	Sod	0	0.00	0	0.00	0	0.00	11	0.01	11	0.01	11	0.01	N/A	N/A	0.01
	Sugarcane	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Vegetables (Fresh Market)	429	0.68	463	0.74	497	0.82	560	0.94	613	1.05	700	1.20	63%	76%	1.61
	Miscellaneous	0	0.27	0	0.27	0	0.27	0	0.27	0	0.27	0	0.27	N/A	0%	0.27
Total	5,171	8.38	5,296	8.41	5,402	8.58	5,512	8.78	5,621	8.98	5,729	9.21	11%	10%	12.19	

Table A-7b-1. Agricultural irrigation self-supply water use (including miscellaneous water use) and acreage for 2015, 5-in-10 year water demand projections and acreage projections for 2020-2040, 1-in-10 year water demand projections for 2040, by crop category by county in the CFWI Planning Area (continued).

County/ District	Crop Category	2015 Estimated Agriculture		2020 Projected Agriculture		2025 Projected Agriculture		2030 Projected Agriculture		2035 Projected Agriculture		2040 Projected Agriculture		Percent Change 2020-2040		2040 (1-in-10) Demand
		Acres	MGD	Acres	MGD	Acreage	MGD									
Osceola SFWMD	Citrus	10,522	8.31	10,522	8.36	10,598	8.54	10,598	8.74	10,666	9.05	10,712	9.31	2%	12%	13.31
	Field Crops	141	0.03	141	0.03	141	0.03	141	0.03	141	0.03	141	0.03	0%	0%	0.04
	Fruit (Non-citrus)	80	0.13	80	0.13	80	0.14	80	0.14	80	0.14	80	0.15	0%	15%	0.17
	Greenhouse/Nursery	25	0.06	25	0.06	25	0.06	25	0.06	25	0.06	25	0.06	0%	0%	0.06
	Hay	3,292	2.14	3,332	2.21	3,364	2.32	3,364	2.36	3,364	2.35	3,364	2.35	2%	10%	3.19
	Potatoes	2,698	2.95	2,698	2.98	2,698	3.04	2,698	3.16	2,698	3.27	2,698	3.37	0%	14%	4.15
	Sod	6,349	4.65	6,349	4.57	6,349	4.57	6,349	4.59	6,349	4.61	6,349	4.63	0%	0%	5.46
	Sugarcane	0	0.00	33	0.05	101	0.16	273	0.44	447	0.73	606	0.98	N/A	N/A	1.36
	Vegetables (Fresh Market)	731	0.78	882	1.00	911	1.08	911	1.14	1,018	1.33	1,275	1.71	74%	119%	2.11
	Miscellaneous	0	1.03	0	1.03	0	1.03	0	1.03	0	1.03	0	1.03	N/A	0%	1.03
Total	23,838	20.08	24,062	20.42	24,267	20.97	24,439	21.69	24,788	22.60	25,250	23.62	6%	18%	30.88	
Osceola SJRWMD	Citrus	1,062	1.07	1,062	1.07	1,075	1.09	1,307	1.32	1,307	1.34	1,314	1.37	24%	28%	2.17
	Field Crops	642	0.50	743	0.59	743	0.60	743	0.60	743	0.59	743	0.59	16%	18%	0.87
	Fruit (Non-citrus)	68	0.12	68	0.12	68	0.12	68	0.12	68	0.12	68	0.13	0%	8%	0.19
	Greenhouse/Nursery	29	0.07	29	0.07	29	0.07	29	0.07	29	0.07	29	0.07	0%	0%	0.07
	Hay	1,498	1.17	1,554	1.25	1,567	1.35	1,567	1.38	1,567	1.38	1,567	1.37	5%	17%	2.25
	Potatoes	616	0.78	616	0.78	616	0.80	616	0.83	616	0.85	616	0.87	0%	12%	1.34
	Sod	883	0.95	883	0.94	883	0.94	883	0.94	883	0.95	883	0.95	0%	0%	1.24
	Sugarcane	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Vegetables (Fresh Market)	0	0.00	128	0.16	399	0.50	512	0.64	663	0.82	699	0.87	N/A	N/A	1.16
	Miscellaneous	0	0.27	0	0.27	0	0.27	0	0.27	0	0.27	0	0.27	N/A	0%	0.27
Total	4,798	4.93	5,083	5.25	5,380	5.74	5,725	6.17	5,876	6.39	5,919	6.49	23%	32%	9.56	
Osceola Total	Citrus	11,584	9.38	11,584	9.43	11,673	9.63	11,905	10.06	11,973	10.39	12,026	10.68	4%	14%	15.48
	Field Crops	783	0.53	884	0.62	884	0.63	884	0.63	884	0.62	884	0.62	13%	17%	0.91
	Fruit (Non-citrus)	148	0.25	148	0.25	148	0.26	148	0.26	148	0.26	148	0.28	0%	12%	0.36
	Greenhouse/Nursery	54	0.13	54	0.13	54	0.13	54	0.13	54	0.13	54	0.13	0%	0%	0.13
	Hay	4,790	3.31	4,886	3.46	4,931	3.67	4,931	3.74	4,931	3.73	4,931	3.72	3%	12%	5.44
	Potatoes	3,314	3.73	3,314	3.76	3,314	3.84	3,314	3.99	3,314	4.12	3,314	4.24	0%	14%	5.49
	Sod	7,232	5.60	7,232	5.51	7,232	5.51	7,232	5.53	7,232	5.56	7,232	5.58	0%	0%	6.70
	Sugarcane	0	0.00	33	0.05	101	0.16	273	0.44	447	0.73	606	0.98	N/A	N/A	1.36
	Vegetables (Fresh Market)	731	0.78	1,010	1.16	1,310	1.58	1,423	1.78	1,681	2.15	1,974	2.58	170%	231%	3.27
	Miscellaneous	0	1.30	0	1.30	0	1.30	0	1.30	0	1.30	0	1.30	N/A	0%	1.30
Total	28,636	25.01	29,145	25.67	29,647	26.71	30,164	27.86	30,664	28.99	31,169	30.11	9%	20%	40.44	

Table A-7b-1. Agricultural irrigation self-supply water use (including miscellaneous water use) and acreage for 2015, 5-in-10 year water demand projections and acreage projections for 2020-2040, 1-in-10 year water demand projections for 2040, by crop category by county in the CFWI Planning Area (continued).

County/ District	Crop Category	2015 Estimated Agriculture		2020 Projected Agriculture		2025 Projected Agriculture		2030 Projected Agriculture		2035 Projected Agriculture		2040 Projected Agriculture		Percent Change 2020-2040		2040 (1-in-10) Demand
		Acres	MGD	Acres	MGD	Acreage	MGD									
Polk SFWMMD	Citrus	1,791	1.50	1,791	1.51	1,751	1.49	1,708	1.49	1,509	1.35	1,509	1.38	-16%	-8%	1.98
	Field Crops	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Fruit (Non-citrus)	55	0.09	55	0.09	55	0.09	55	0.09	55	0.10	55	0.10	0%	11%	0.12
	Greenhouse/Nursery	109	0.25	109	0.24	109	0.24	109	0.24	109	0.23	109	0.23	0%	-8%	0.26
	Hay	301	0.18	301	0.18	301	0.20	287	0.20	287	0.20	287	0.20	-5%	11%	0.27
	Potatoes	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Sod	1,037	0.95	1,037	0.94	1,037	0.94	1,037	0.95	1,037	0.95	1,037	0.95	0%	0%	1.12
	Sugarcane	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Vegetables (Fresh Market)	734	0.47	734	0.49	734	0.55	734	0.60	734	0.66	734	0.73	0%	55%	0.89
	Miscellaneous	0	0.87	0	0.87	0	0.87	0	0.87	0	0.87	0	0.87	N/A	0%	0.87
Total	4,027	4.31	4,027	4.32	3,987	4.38	3,930	4.44	3,731	4.36	3,731	4.46	-7%	3%	5.51	
Polk SWFWMMD	Citrus	79,728	71.81	78,287	70.93	76,842	70.49	75,423	70.68	74,145	71.26	72,659	71.30	-9%	-1%	106.95
	Field Crops	242	0.19	242	0.19	242	0.19	242	0.19	242	0.19	242	0.19	0%	0%	0.24
	Fruit (Non-citrus)	2,500	4.46	2,490	4.44	2,458	4.38	2,429	4.41	2,429	4.52	2,404	4.63	-4%	4%	6.02
	Greenhouse/Nursery	592	1.35	592	1.30	592	1.28	586	1.26	558	1.19	558	1.18	-6%	-13%	1.30
	Hay	599	0.40	557	0.35	557	0.34	557	0.35	557	0.35	557	0.35	-7%	-13%	0.47
	Potatoes	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Sod	1,987	1.48	1,978	1.45	1,950	1.44	1,950	1.45	1,950	1.45	1,950	1.46	-2%	-1%	1.70
	Sugarcane	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Vegetables (Fresh Market)	907	1.14	907	1.17	907	1.24	907	1.33	907	1.40	907	1.50	0%	32%	1.94
	Miscellaneous	0	1.00	0	1.00	0	1.00	0	1.00	0	1.00	0	1.00	N/A	0%	1.00
Total	86,555	81.83	85,053	80.83	83,548	80.36	82,094	80.67	80,788	81.36	79,277	81.61	-8%	0%	119.62	
Polk Total	Citrus	81,519	73.31	80,078	72.44	78,593	71.98	77,131	72.17	75,654	72.61	74,168	72.68	-9%	-1%	108.93
	Field Crops	242	0.19	242	0.19	242	0.19	242	0.19	242	0.19	242	0.19	0%	0%	0.24
	Fruit (Non-citrus)	2,555	4.55	2,545	4.53	2,513	4.47	2,484	4.50	2,484	4.62	2,459	4.73	-4%	4%	6.14
	Greenhouse/Nursery	701	1.60	701	1.54	701	1.52	695	1.50	667	1.42	667	1.41	-5%	-12%	1.56
	Hay	900	0.58	858	0.53	858	0.54	844	0.55	844	0.55	844	0.55	-6%	-5%	0.74
	Potatoes	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Sod	3,024	2.43	3,015	2.39	2,987	2.38	2,987	2.40	2,987	2.40	2,987	2.41	-1%	-1%	2.82
	Sugarcane	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Vegetables (Fresh Market)	1,641	1.61	1,641	1.66	1,641	1.79	1,641	1.93	1,641	2.06	1,641	2.23	0%	39%	2.83
	Miscellaneous	0	1.87	0	1.87	0	1.87	0	1.87	0	1.87	0	1.87	N/A	0%	1.87
Total	90,582	86.14	89,080	85.15	87,535	84.74	86,024	85.11	84,519	85.72	83,008	86.07	-8%	0%	125.13	

Table A-7b-1. Agricultural irrigation self-supply water use (including miscellaneous water use) and acreage for 2015, 5-in-10 year water demand projections and acreage projections for 2020-2040, 1-in-10 year water demand projections for 2040, by crop category by county in the CFWI Planning Area (continued).

County/ District	Crop Category	2015 Estimated Agriculture		2020 Projected Agriculture		2025 Projected Agriculture		2030 Projected Agriculture		2035 Projected Agriculture		2040 Projected Agriculture		Percent Change 2020-2040		2040 (1-in-10) Demand
		Acres	MGD	Acres	MGD	Acreage	MGD									
Seminole SJRWMD Total	Citrus	586	0.67	443	0.51	434	0.50	389	0.46	335	0.40	254	0.31	-57%	-54%	0.49
	Field Crops	14	0.01	14	0.01	14	0.01	14	0.01	14	0.01	14	0.01	0%	0%	0.01
	Fruit (Non-citrus)	11	0.02	11	0.02	11	0.02	11	0.02	0	0.00	0	0.00	-100%	-100%	0.00
	Greenhouse/Nursery	843	2.07	803	1.91	706	1.67	645	1.52	564	1.34	489	1.16	-42%	-44%	1.32
	Hay	19	0.00	19	0.01	19	0.01	19	0.01	19	0.01	19	0.01	0%	N/A	0.01
	Potatoes	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Sod	252	0.29	252	0.29	39	0.05	0	0.00	0	0.00	0	0.00	-100%	-100%	0.00
	Sugarcane	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Vegetables (Fresh Market)	7	0.01	7	0.01	7	0.01	7	0.01	7	0.01	7	0.01	0%	0%	0.01
	Miscellaneous	0	0.09	0	0.09	0	0.09	0	0.09	0	0.09	0	0.09	N/A	0%	0.09
Total	1,732	3.16	1,549	2.85	1,230	2.36	1,085	2.12	939	1.86	783	1.59	-55%	-50%	1.93	
SFWMD Total	Citrus	13,339	10.69	13,339	10.76	13,375	10.93	13,356	11.17	13,225	11.36	13,271	11.67	-1%	9%	16.70
	Field Crops	141	0.03	141	0.03	141	0.03	141	0.03	141	0.03	141	0.03	0%	0%	0.04
	Fruit (Non-citrus)	162	0.26	162	0.26	162	0.27	162	0.27	162	0.28	162	0.30	0%	15%	0.34
	Greenhouse/Nursery	181	0.43	181	0.41	181	0.41	181	0.41	181	0.40	181	0.40	0%	-7%	0.44
	Hay	3,593	2.32	3,633	2.39	3,665	2.52	3,651	2.56	3,651	2.55	3,651	2.55	2%	10%	3.46
	Potatoes	2,698	2.95	2,698	2.98	2,698	3.04	2,698	3.16	2,698	3.27	2,698	3.37	0%	14%	4.15
	Sod	7,386	5.60	7,386	5.51	7,386	5.51	7,386	5.54	7,386	5.56	7,386	5.58	0%	0%	6.58
	Sugarcane	0	0.00	33	0.05	101	0.16	273	0.44	447	0.73	606	0.98	N/A	N/A	1.36
	Vegetables (Fresh Market)	1,465	1.25	1,616	1.49	1,645	1.63	1,645	1.74	1,752	1.99	2,009	2.44	37%	95%	3.00
	Miscellaneous	0	1.95	0	1.95	0	1.95	0	1.95	0	1.95	0	1.95	N/A	0%	1.95
Total	28,965	25.48	29,189	25.83	29,354	26.45	29,493	27.27	29,643	28.12	30,105	29.27	4%	15%	38.02	
SJRWMD Total	Citrus	9,907	10.92	9,376	10.35	9,042	10.07	8,603	9.69	8,236	9.41	7,636	8.83	-23%	-19%	13.95
	Field Crops	656	0.51	757	0.60	757	0.61	757	0.61	757	0.60	757	0.60	15%	18%	0.88
	Fruit (Non-citrus)	395	0.74	395	0.74	395	0.75	395	0.77	384	0.76	384	0.79	-3%	7%	1.15
	Greenhouse/Nursery	4,161	11.22	4,031	10.56	3,855	10.05	3,770	9.78	3,540	9.20	3,320	8.64	-20%	-23%	9.84
	Hay	1,872	1.24	2,008	1.41	2,021	1.53	2,021	1.56	2,021	1.56	2,021	1.55	8%	25%	2.54
	Potatoes	616	0.78	616	0.78	616	0.80	622	0.84	622	0.86	622	0.88	1%	13%	1.35
	Sod	1,135	1.24	1,135	1.23	922	0.99	894	0.95	894	0.96	894	0.96	-21%	-23%	1.25
	Sugarcane	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Vegetables (Fresh Market)	735	1.07	735	1.09	1,040	1.51	1,216	1.79	1,420	2.09	1,543	2.30	110%	115%	3.07
	Miscellaneous	0	0.68	0	0.68	0	0.68	0	0.68	0	0.68	0	0.68	N/A	0%	0.68
Total	19,477	28.4	19,053	27.44	18,648	26.99	18,278	26.67	17,874	26.12	17,177	25.23	-12%	-11%	34.71	

Table A-7b-1. Agricultural irrigation self-supply water use (including miscellaneous water use) and acreage for 2015, 5-in-10 year water demand projections and acreage projections for 2020-2040, 1-in-10 year water demand projections for 2040, by crop category by county in the CFWI Planning Area (continued).

District	Crop Category	2015 Estimated Agriculture		2020 Projected Agriculture		2025 Projected Agriculture		2030 Projected Agriculture		2035 Projected Agriculture		2040 Projected Agriculture		Percent Change 2020-2040		2040 (1-in-10) Demand
		Acres	MGD	Acres	MGD	Acreage	MGD									
SWFWMD Total	Citrus	80,254	72.25	78,813	71.37	77,356	70.92	75,937	71.12	74,618	71.68	73,132	71.73	-9%	-1%	107.59
	Field Crops	242	0.19	242	0.19	242	0.19	242	0.19	242	0.19	242	0.19	0%	0%	0.24
	Fruit (Non-citrus)	2,511	4.48	2,501	4.46	2,458	4.38	2,429	4.41	2,429	4.52	2,404	4.63	-4%	3%	6.02
	Greenhouse/Nursery	628	1.44	628	1.39	628	1.37	622	1.35	594	1.27	594	1.26	-5%	-13%	1.39
	Hay	672	0.46	630	0.41	591	0.37	591	0.38	591	0.38	591	0.38	-12%	-17%	0.51
	Potatoes	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Sod	1,987	1.48	1,978	1.45	1,950	1.44	1,950	1.45	1,950	1.45	1,950	1.46	-2%	-1%	1.70
	Sugarcane	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	N/A	N/A	0.00
	Vegetables (Fresh Market)	989	1.19	989	1.23	989	1.30	989	1.40	929	1.42	929	1.52	-6%	28%	1.97
	Miscellaneous	0	1.01	0	1.01	0	1.01	0	1.01	0	1.01	0	1.01	N/A	0%	1.01
Total	87,283	82.50	85,781	81.51	84,214	80.98	82,760	81.31	81,353	81.92	79,842	82.18	-9%	0%	120.43	
CFWI Total	Citrus	103,500	93.86	101,528	92.48	99,773	91.92	97,896	91.98	96,079	92.45	94,039	92.23	-9%	-2%	138.24
	Field Crops	1,039	0.73	1,140	0.82	1,140	0.83	1,140	0.83	1,140	0.82	1,140	0.82	10%	12%	1.16
	Fruit (Non-citrus)	3,068	5.48	3,058	5.46	3,015	5.40	2,986	5.45	2,975	5.56	2,950	5.72	-4%	4%	7.51
	Greenhouse/Nursery	4,970	13.09	4,840	12.36	4,664	11.83	4,573	11.54	4,315	10.87	4,095	10.30	-18%	-21%	11.67
	Hay	6,137	4.02	6,271	4.21	6,277	4.42	6,263	4.50	6,263	4.49	6,263	4.48	2%	11%	6.51
	Potatoes	3,314	3.73	3,314	3.76	3,314	3.84	3,320	4.00	3,320	4.13	3,320	4.25	0%	14%	5.50
	Sod	10,508	8.32	10,499	8.19	10,258	7.94	10,230	7.94	10,230	7.97	10,230	8.00	-3%	-4%	9.53
	Sugarcane	0	0.00	33	0.05	101	0.16	273	0.44	447	0.73	606	0.98	N/A	N/A	1.36
	Vegetables (Fresh Market)	3,189	3.51	3,340	3.81	3,674	4.44	3,850	4.93	4,101	5.50	4,481	6.26	41%	78%	8.04
	Miscellaneous	0	3.64	0	3.64	0	3.64	0	3.64	0	3.64	0	3.64	N/A	0%	3.64
Total	135,725	136.38	134,023	134.78	132,216	134.42	130,531	135.25	128,870	136.16	127,124	136.68	-6%	0%	193.16	

Notes:

1.) All water use is shown in million gallons per day (mgd).

2.) Rounding errors account for nominal discrepancies.

3.) 2015 estimated irrigated acres and water use derived from FSAID IV AG layer, deliverable dated July 2017 from The Balmoral Group as Florida Department of Agriculture and Consumer Services representative. 2015 values will not match published Annual Water Use Survey nor USGS data.

4.) 2020-2040 acreage projections and 2020-2040 average and 1-in-10 water demand projections derived from FSAID IV AG layer, from The Balmoral Group as Florida Department of Agriculture and Consumer Services representative.

Table A-7b. Miscellaneous agricultural self-supply water use projections for 2015 and water demand projections for 2020-2040 by county and district in the CFWI Planning Area.

County/ District	2015 Water Use				2020 – 2040 Water Demand Projections			
	Dairy	Livestock	Aquaculture	Total	Dairy	Livestock	Aquaculture	Total
Lake - CFWI SJRWMD	0.00	0.10	0.00	0.10	0.00	0.10	0.00	0.10
Lake - CFWI SWFWMD	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.01
Lake – CFWI Total	0.00	0.10	0.01	0.11	0.00	0.10	0.01	0.11
Orange - SFWMD	0.03	0.02	0.00	0.05	0.03	0.02	0.00	0.05
Orange - SJRWMD	0.00	0.16	0.06	0.22	0.00	0.16	0.06	0.22
Orange - Total	0.03	0.18	0.06	0.27	0.03	0.18	0.06	0.27
Osceola - SFWMD	0.00	0.97	0.06	1.03	0.00	0.97	0.06	1.03
Osceola - SJRWMD	0.00	0.24	0.03	0.27	0.00	0.24	0.03	0.27
Osceola - Total	0.00	1.21	0.09	1.30	0.00	1.21	0.09	1.30
Polk - SWFMD	0.00	0.56	0.31	0.87	0.00	0.56	0.31	0.87
Polk - SWFWMD	0.18	0.63	0.19	1.00	0.18	0.63	0.19	1.00
Polk - Total	0.18	1.19	0.50	1.87	0.18	1.19	0.50	1.87
Seminole - SJRWMD	0.02	0.07	0.00	0.09	0.02	0.07	0.00	0.09
SFWMD Total	0.03	1.55	0.37	1.95	0.03	1.55	0.37	1.95
SJRWMD Total	0.02	0.57	0.09	0.68	0.02	0.57	0.09	0.68
SWFWMD Total	0.18	0.63	0.20	1.01	0.18	0.63	0.20	1.01
CFWI Total	0.23	2.75	0.66	3.64	0.23	2.75	0.66	3.64

Notes:

- 1.) All water use is shown in million gallons per day (mgd).
- 2.) Rounding errors account for nominal discrepancies.
- 3.) 2015 estimated irrigated acres and water use derived from FSAID IV AG layer, deliverable dated July 2017 from The Balmoral Group as Florida Department of Agriculture and Consumer Services representative. 2015 values will not match published Annual Water Use Survey nor USGS data.
- 4.) 2020-2040 projected water demand derived from FSAID IV AG layer, from The Balmoral Group as Florida Department of Agriculture and Consumer Services representative.
- 5.) FSAID IV AG layer, from The Balmoral Group as Florida Department of Agriculture and Consumer Services representative assumes no increase for 1-in-10 year drought conditions.

Table A-8. Landscape/recreational (LR) self-supply water use for 2015 and 5-in-10 year demand projections for 2020-2040, 1-in 10 year demand projections for 2040 by county in the CFWI Planning Area.

County/ District	Water Use			Demand Projections (5-in-10)															Percent Demand Change 2015- 2040	Demand Projections (1-in-10)		
	2015			2020			2025			2030			2035			2040				2040		
	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total		GW	SW	Total
Lake (CFWI) SJRWMD	2.36	4.25	6.61	2.41	4.34	6.75	2.45	4.42	6.87	2.48	4.48	6.96	2.50	4.53	7.03	2.52	4.58	7.10	7%	2.94	5.30	8.24
Lake (CFWI) SWFWMD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00
Lake – CFWI Total	2.36	4.25	6.61	2.41	4.34	6.75	2.45	4.42	6.87	2.48	4.48	6.96	2.50	4.53	7.03	2.52	4.58	7.10	7%	2.94	5.30	8.24
Orange - SFWMD	5.91	3.56	9.47	6.24	3.76	10.00	6.56	3.96	10.52	6.90	4.16	11.06	7.31	4.41	11.72	7.73	4.67	12.40	31%	9.83	5.92	15.75
Orange - SJRWMD	1.00	1.69	2.69	1.04	1.75	2.79	1.08	1.81	2.89	1.11	1.86	2.97	1.13	1.89	3.02	1.14	1.92	3.06	14%	1.51	2.56	4.07
Orange - Total	6.91	5.25	12.16	7.28	5.51	12.79	7.64	5.77	13.41	8.01	6.02	14.03	8.44	6.30	14.74	8.87	6.59	15.46	27%	11.34	8.48	19.82
Osceola - SFWMD	4.55	2.27	6.82	4.92	2.45	7.37	5.29	2.64	7.93	5.65	2.82	8.47	5.93	2.96	8.89	6.16	3.08	9.24	35%	7.65	3.81	11.46
Osceola - SJRWMD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00
Osceola - Total	4.55	2.27	6.82	4.92	2.45	7.37	5.29	2.64	7.93	5.65	2.82	8.47	5.93	2.96	8.89	6.16	3.08	9.24	35%	7.65	3.81	11.46
Polk - SFWMD	2.56	0.92	3.48	2.64	0.95	3.59	2.70	0.97	3.67	2.76	0.99	3.75	2.81	1.01	3.82	2.85	1.03	3.88	11%	3.20	1.15	4.35
Polk - SWFWMD	5.93	1.28	7.21	6.28	1.35	7.63	6.60	1.42	8.02	6.86	1.48	8.34	7.11	1.54	8.65	7.34	1.59	8.93	24%	9.92	2.14	12.06
Polk Total	8.49	2.20	10.69	8.92	2.30	11.22	9.30	2.39	11.69	9.62	2.47	12.09	9.92	2.55	12.47	10.19	2.62	12.81	20%	13.12	3.29	16.41
Seminole - SJRWMD	0.57	1.39	1.96	0.60	1.46	2.06	0.63	1.52	2.15	0.65	1.57	2.22	0.67	1.62	2.29	0.69	1.66	2.35	20%	0.85	2.09	2.94
SFWMD Total	13.02	6.75	19.77	13.80	7.16	20.96	14.55	7.57	22.12	15.31	7.97	23.28	16.05	8.38	24.43	16.74	8.78	25.52	29%	20.68	10.88	31.56
SJRWMD Total	3.93	7.33	11.26	4.05	7.55	11.60	4.16	7.75	11.91	4.24	7.91	12.15	4.30	8.04	12.34	4.35	8.16	12.51	11%	5.30	9.95	15.25
SWFWMD Total	5.93	1.28	7.21	6.28	1.35	7.63	6.60	1.42	8.02	6.86	1.48	8.34	7.11	1.54	8.65	7.34	1.59	8.93	24%	9.92	2.14	12.06
CFWI Total	22.88	15.36	38.24	24.13	16.06	40.19	25.31	16.74	42.05	26.41	17.36	43.77	27.46	17.96	45.42	28.43	18.53	46.96	23%	35.90	22.97	58.87

Notes for Table A-8:

- 1.) All water use is shown in million gallons per day (mgd).
- 2.) Rounding errors account for nominal discrepancies.
- 3.) 2015 water use and irrigated acreage obtained from SJRWMD Estimated Water Use Survey, SWFWMD AWUS, golf course land coverage, EN-50, and USGS data.
- 4.) 2020-2040 projected surface water demand was interpolated based on 2015 percentages.
- 5.) 2040 1-in-10 rainfall year demands estimated using % above average from highest water year from 2011-2015.

Table A-8a-1. Landscape/recreational (LR) 2011-2015 water use, total county population and five-year gross per capita averages for self-supply and LR self-supply water demand increases in the CFWI Planning Area.

County/ District	County LR Water Use within CFWI					2011- 2015 Average	High Year	% Above Average	County Population within CFWI					2011-2015 Average GPCD
	2011	2012	2013	2014	2015				2011	2012	2013	2014	2015	
Lake - CFWI SJRWMD	5.631	5.003	4.386	6.769	6.610	5.68	6.61	16%	106,309	107,506	109,378	113,625	117,465	7
Lake - CFWI SWFWMD	0.000	0.000	0.000	0.000	0.000	0.00	0.00	0%	1,040	1,038	1,043	1,053	1,059	0
Lake - CFWI Total	5.631	5.003	4.386	6.769	6.610	5.68	6.61	16%	107,349	108,544	110,421	114,678	118,524	N/A
Orange- SFWMD	18.371	18.676	15.379	11.429	9.470	14.67	18.68	27%	329,371	336,209	346,894	357,483	367,636	11
Orange- SJRWMD	3.632	4.337	5.237	5.758	2.690	4.33	5.76	33%	827,971	839,732	856,084	870,512	884,760	1
Orange – Total	22.003	23.013	20.616	17.187	12.160	19.00	23.01	21%	1,157,342	1,175,941	1,202,978	1,227,995	1,252,396	N/A
Osceola - SFWMD	11.061	11.237	9.261	6.895	6.820	9.05	11.24	24%	272,553	279,533	287,002	294,176	306,912	8
Osceola - SJRWMD	0.000	0.000	0.000	0.000	0.000	0.00	0.00	0%	1,314	1,333	1,359	1,377	1,415	0
Osceola - Total	11.061	11.237	9.261	6.895	6.820	9.05	11.24	24%	273,867	280,866	288,361	295,553	308,327	N/A
Polk -SFWMD	3.655	3.845	3.653	2.594	3.476	3.44	3.85	12%	32,907	33,027	33,513	34,240	35,071	24
Polk - SWFWMD	9.654	11.157	7.186	6.237	7.209	8.29	11.16	35%	571,885	573,861	580,437	588,934	597,981	7
Polk - Total	13.309	15.002	10.839	8.831	10.685	11.73	15.00	28%	604,792	606,888	613,950	623,174	633,052	N/A
Seminole - SJRWMD	4.920	4.161	5.127	3.592	1.960	3.95	4.92	25%	424,587	428,104	431,074	437,086	442,903	3
SFWMD Total	33.087	33.758	28.293	20.918	19.766	27.16	33.76	24%	634,831	648,769	667,409	685,899	709,619	N/A
SJRWMD Total	14.183	13.501	14.750	16.119	11.260	13.96	16.12	15%	1,360,181	1,376,675	1,397,895	1,422,600	1,446,543	N/A
SWFWMD Total	9.654	11.157	7.186	6.237	7.209	8.29	11.16	35%	572,925	574,899	581,480	589,987	599,040	N/A
CFWI Total	56.924	58.416	50.229	43.274	38.235	49.42	58.42	18%	2,567,937	2,600,343	2,646,784	2,698,486	2,755,202	N/A

Table A-8a-2. 2011-2015 water use, total county population and five-year gross per capita averages for landscape/recreational (LR) self-supply and water demand increases in the CFWI Planning Area.

County/ District	County Population Projections within CFWI					Increase in County Population within CFWI					Change in LR Self-supply Water Demand				
	2020	2025	2030	2035	2040	2015-2020	2020-2025	2025-2030	2030-2035	2035-2040	2020	2025	2030	2035	2040
Lake - CFWI SJRWMD	137,632	155,035	167,615	177,803	187,739	20,167	17,403	12,580	10,188	9,936	0.141	0.122	0.088	0.071	0.070
Lake - CFWI SWFWMD	1,296	1,579	1,853	2,122	2,383	237	283	274	269	261	0.000	0.000	0.000	0.000	0.000
Lake - CFWI Total	138,928	156,614	169,468	179,925	190,122	20,404	17,686	12,854	10,457	10,197	0.141	0.122	0.088	0.071	0.070
Orange- SFWMD	415,779	463,301	512,057	572,183	633,956	48,143	47,522	48,756	60,126	61,773	0.530	0.523	0.536	0.661	0.680
Orange- SJRWMD	983,039	1,083,085	1,158,172	1,209,408	1,251,800	98,279	100,046	75,087	51,236	42,392	0.098	0.100	0.075	0.051	0.042
Orange – Total	1,398,818	1,546,386	1,670,229	1,781,591	1,885,756	146,422	147,568	123,843	111,362	104,165	0.628	0.623	0.611	0.712	0.722
Osceola - SFWMD	375,319	445,107	512,333	564,816	608,580	68,407	69,788	67,226	52,483	43,764	0.547	0.558	0.538	0.420	0.350
Osceola - SJRWMD	2,110	2,793	3,416	3,960	4,631	695	683	623	544	671	0.000	0.000	0.000	0.000	0.000
Osceola - Total	377,429	447,900	515,749	568,776	613,211	69,102	70,471	67,849	53,027	44,435	0.547	0.558	0.538	0.420	0.350
Polk -SFWMD	39,717	43,199	46,472	49,423	51,969	4,646	3,482	3,273	2,951	2,546	0.112	0.084	0.079	0.071	0.061
Polk - SWFWMD	658,283	714,001	760,328	804,277	844,431	60,302	55,718	46,327	43,949	40,154	0.422	0.390	0.324	0.308	0.281
Polk - Total	698,000	757,200	806,800	853,700	896,400	64,948	59,200	49,600	46,900	42,700	0.534	0.474	0.403	0.379	0.342
Seminole - SJRWMD	476,219	505,527	529,932	552,233	571,833	33,316	29,308	24,405	22,301	19,600	0.100	0.088	0.073	0.067	0.059
SFWMD Total	648,769	667,409	685,899	709,619	648,769	121,196	120,792	119,255	115,560	108,083	1.189	1.165	1.153	1.152	1.091
SJRWMD Total	1,376,675	1,397,895	1,422,600	1,446,543	1,376,675	152,457	147,440	112,695	84,269	72,599	0.339	0.310	0.236	0.189	0.171
SWFWMD Total	574,899	581,480	589,987	599,040	574,899	60,539	56,001	46,601	44,218	40,415	0.422	0.390	0.324	0.308	0.281
CFWI Total	2,600,343	2,646,784	2,698,486	2,755,202	2,600,343	334,192	324,233	278,551	244,047	221,097	1.950	1.865	1.713	1.649	1.543

Table A-9. Commercial/Industrial/Institutional self-supply water use for 2015, 5-in-10 year demand projections for 2020-2040, by county in the CFWI Planning Area.

County/ District	Water Use			Demand Projections (5-in-10)															Percent Demand Change 2015- 2040
	2015			2020			2025			2030			2035			2040			
	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	
Lake (CFWI) SJRWMD	4.08	0.38	4.46	4.71	0.44	5.15	5.25	0.49	5.74	5.64	0.53	6.17	5.96	0.56	6.52	6.27	0.59	6.86	54%
Lake (CFWI) SWFWMD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Lake – CFWI Total	4.08	0.38	4.46	4.71	0.44	5.15	5.25	0.49	5.74	5.64	0.53	6.17	5.96	0.56	6.52	6.27	0.59	6.86	54%
Orange - SFWMMD	2.15	0.00	2.15	2.49	0.00	2.49	2.82	0.00	2.82	3.16	0.00	3.16	3.58	0.00	3.58	4.01	0.00	4.01	87%
Orange - SJRWMD	2.60	0.15	2.75	2.88	0.17	3.05	3.16	0.19	3.35	3.38	0.20	3.58	3.52	0.21	3.73	3.64	0.22	3.86	40%
Orange - Total	4.75	0.15	4.90	5.37	0.17	5.54	5.98	0.19	6.17	6.54	0.20	6.74	7.10	0.21	7.31	7.65	0.22	7.87	61%
Osceola - SFWMMD	0.92	0.00	0.92	1.13	0.00	1.13	1.34	0.00	1.34	1.54	0.00	1.54	1.70	0.00	1.70	1.83	0.00	1.83	N/A
Osceola - SJRWMD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Osceola - Total	0.92	0.00	0.92	1.13	0.00	1.13	1.34	0.00	1.34	1.54	0.00	1.54	1.70	0.00	1.70	1.83	0.00	1.83	N/A
Polk - SFWMMD	0.02	0.00	0.02	0.03	0.00	0.03	0.03	0.00	0.03	0.03	0.00	0.03	0.03	0.00	0.03	0.03	0.00	0.03	50%
Polk - SWFWMD	42.81	0.39	43.20	49.65	0.45	50.10	50.01	0.45	50.46	53.96	0.49	54.45	51.73	0.47	52.20	51.94	0.47	52.41	21%
Polk Total	42.83	0.39	43.22	49.68	0.45	50.13	50.04	0.45	50.49	53.99	0.49	54.48	51.76	0.47	52.23	51.97	0.47	52.44	21%
Seminole - SJRWMD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
SFWMD Total	3.09	0.00	3.09	3.65	0.00	3.65	4.19	0.00	4.19	4.73	0.00	4.73	5.31	0.00	5.31	5.87	0.00	5.87	90%
SJRWMD Total	6.68	0.53	7.21	7.59	0.61	8.20	8.41	0.68	9.09	9.02	0.73	9.75	9.48	0.77	10.25	9.91	0.81	10.72	49%
SWFWMD Total	42.81	0.39	43.20	49.65	0.45	50.10	50.01	0.45	50.46	53.96	0.49	54.45	51.73	0.47	52.20	51.94	0.47	52.41	21%
CFWI Total	52.58	0.92	53.50	60.89	1.06	61.95	62.61	1.13	63.74	67.71	1.22	68.93	66.52	1.24	67.76	67.72	1.28	69.00	29%

Table A-9a-1. 2011-2015 water use, total county population and five-year gross per capita averages for Commercial/Industrial/Institutional self-supply water demand increases in the CFWI Planning Area.

County/ District	Total County Water Use					County Population within CFWI					2011-2015 Average GPCD
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	
Lake - CFWI SJRWMD	3.271	3.851	3.514	3.900	4.460	106,309	107,506	109,378	113,625	117,465	34
Lake - CFWI SWFWMD	0.000	0.000	0.000	0.000	0.000	1,040	1,038	1,043	1,053	1,059	0
Lake - CFWI Total	3.271	3.851	3.514	3.900	4.460	107,349	108,544	110,421	114,678	118,524	34
Orange- SFWMD	2.630	2.630	2.630	2.630	2.150	329,371	336,209	346,894	357,483	367,636	7
Orange- SJRWMD	1.674	2.069	2.445	2.921	2.749	827,971	839,732	856,084	870,512	884,760	3
Orange – Total	4.304	4.699	5.075	5.551	4.899	1,157,342	1,175,941	1,202,978	1,227,995	1,252,396	4
Osceola - SFWMD	0.925	0.925	0.925	0.923	0.923	272,553	279,533	287,002	294,176	306,912	3
Osceola - SJRWMD	0.000	0.000	0.000	0.000	0.000	1,314	1,333	1,359	1,377	1,415	0
Osceola - Total	0.925	0.925	0.925	0.923	0.923	273,867	280,866	288,361	295,553	308,327	3
Polk -SFWMD	0.020	0.020	0.020	0.020	0.020	32,907	33,027	33,513	34,240	35,071	1
Polk - SWFWMD	4.333	4.818	5.608	4.210	4.100	571,885	573,861	580,437	588,934	597,981	8
Polk - Total	4.353	4.838	5.628	4.230	4.120	604,792	606,888	613,950	623,174	633,052	8
Seminole - SJRWMD	0.000	0.000	0.000	0.000	0.000	424,587	428,104	431,074	437,086	442,903	0
SFWMD Total	3.575	3.575	3.575	3.573	3.093	634,831	648,769	667,409	685,899	709,619	5
SJRWMD Total	4.945	5.920	5.959	6.821	7.209	1,360,181	1,376,675	1,397,895	1,422,600	1,446,543	4
SWFWMD Total	4.333	4.818	5.608	4.210	4.100	572,925	574,899	581,480	589,987	599,040	8
CFWI Total	12.853	14.313	15.142	14.604	14.402	2,567,937	2,600,343	2,646,784	2,698,486	2,755,202	5

Table A-9a-2. Commercial/Industrial/Institutional self-supply 2011-2015 water use, total county population and five-year gross per capita averages for and water demand increases in the CFWI Planning Area.

County/ District	County Population Projections within CFWI					Increase in County Population within CFWI					Change in Commercial / Industrial / Institutional Self-supply Water Demand				
	2020	2025	2030	2035	2040	2015-2020	2020-2025	2025-2030	2030-2035	2035-2040	2020	2025	2030	2035	2040
Lake - CFWI SJRWMD	137,632	155,035	167,615	177,803	187,739	20,167	17,403	12,580	10,188	9,936	0.686	0.592	0.428	0.346	0.338
Lake - CFWI SWFWMD	1,296	1,579	1,853	2,122	2,383	237	283	274	269	261	0.000	0.000	0.000	0.000	0.000
Lake - CFWI Total	138,928	156,614	169,468	179,925	190,122	20,404	17,686	12,854	10,457	10,197	0.686	0.592	0.428	0.346	0.338
Orange- SFWMD	415,779	463,301	512,057	572,183	633,956	48,143	47,522	48,756	60,126	61,773	0.337	0.333	0.341	0.421	0.432
Orange- SJRWMD	983,039	1,083,085	1,158,172	1,209,408	1,251,800	98,279	100,046	75,087	51,236	42,392	0.295	0.300	0.225	0.154	0.127
Orange - Total	1,398,818	1,546,386	1,670,229	1,781,591	1,885,756	146,422	147,568	123,843	111,362	104,165	0.632	0.633	0.566	0.575	0.559
Osceola - SFWMD	375,319	445,107	512,333	564,816	608,580	68,407	69,788	67,226	52,483	43,764	0.205	0.209	0.202	0.157	0.131
Osceola - SJRWMD	2,110	2,793	3,416	3,960	4,631	695	683	623	544	671	0.000	0.000	0.000	0.000	0.000
Osceola - Total	377,429	447,900	515,749	568,776	613,211	69,102	70,471	67,849	53,027	44,435	0.205	0.209	0.202	0.157	0.131
Polk -SFWMD	39,717	43,199	46,472	49,423	51,969	4,646	3,482	3,273	2,951	2,546	0.005	0.003	0.003	0.003	0.003
Polk - SWFWMD	658,283	714,001	760,328	804,277	844,431	60,302	55,718	46,327	43,949	40,154	0.482	0.446	0.371	0.352	0.321
Polk - Total	698,000	757,200	806,800	853,700	896,400	64,948	59,200	49,600	46,900	42,700	0.487	0.449	0.374	0.355	0.324
Seminole - SJRWMD	476,219	505,527	529,932	552,233	571,833	33,316	29,308	24,405	22,301	19,600	0.000	0.000	0.000	0.000	0.000
SFWMD Total	830,815	951,607	1,070,862	1,186,422	1,294,505	121,196	120,792	119,255	115,560	108,083	0.547	0.545	0.546	0.581	0.566
SJRWMD Total	1,599,000	1,746,440	1,859,135	1,943,404	2,016,003	152,457	147,440	112,695	84,269	72,599	0.981	0.892	0.653	0.500	0.465
SWFWMD Total	659,579	715,580	762,181	806,399	846,814	60,539	56,001	46,601	44,218	40,415	0.482	0.446	0.371	0.352	0.321
CFWI Total	3,089,394	3,413,627	3,692,178	3,936,225	4,157,322	334,192	324,233	278,551	244,047	221,097	2.010	1.883	1.570	1.433	1.352

Table A-10. Power generation self-supply water use for 2015 and 5-in-10 year demand projections for 2020-2040, by county and water management district in the CFWI Planning Area. ^a

County/ District	Water Use			Demand Projections (5-in-10)															Percent Demand Change 2015- 2040	
	2015			2020			2025			2030			2035			2040				
	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total		
Lake (CFWI) SJRWMD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%
Lake (CFWI) SWFWMD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%
Lake – CFWI Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%
Orange - SFWMD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%
Orange - SJRWMD	0.73	0.00	0.73	0.73	0.00	0.73	0.73	0.00	0.73	0.73	0.00	0.73	0.73	0.00	0.73	0.73	0.00	0.73	0.00	0%
Orange - Total	0.73	0.00	0.73	0.73	0.00	0.73	0.73	0.00	0.73	0.73	0.00	0.73	0.73	0.00	0.73	0.73	0.00	0.73	0.00	0%
Osceola - SFWMD	0.12	0.00	0.12	0.14	0.00	0.14	0.14	0.00	0.14	0.14	0.00	0.14	0.14	0.00	0.14	0.14	0.00	0.14	0.00	17%
Osceola - SJRWMD	0.00	0.00	0.00	0.17	0.00	0.17	0.17	0.00	0.17	0.17	0.00	0.17	0.17	0.00	0.17	0.17	0.00	0.17	0.00	N/A
Osceola - Total	0.12	0.00	0.12	0.31	0.00	0.31	0.31	0.00	0.31	0.31	0.00	0.31	0.31	0.00	0.31	0.31	0.00	0.31	0.00	158%
Polk - SFWMD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%
Polk - SWFWMD	7.62	0.00	7.62	9.96	0.00	9.96	10.02	0.00	10.02	10.09	0.00	10.09	10.15	0.00	10.15	10.23	0.00	10.23	0.00	34%
Polk Total	7.62	0.00	7.62	9.96	0.00	9.96	10.02	0.00	10.02	10.09	0.00	10.09	10.15	0.00	10.15	10.23	0.00	10.23	0.00	34%
Seminole SJRWMD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%
SFWMD Total	0.12	0.00	0.12	0.14	0.00	0.14	0.14	0.00	0.14	0.14	0.00	0.14	0.14	0.00	0.14	0.14	0.00	0.14	0.00	17%
SJRWMD Total	0.73	0.00	0.73	0.90	0.00	0.90	0.90	0.00	0.90	0.90	0.00	0.90	0.90	0.00	0.90	0.90	0.00	0.90	0.00	23%
SWFWMD Total	7.62	0.00	7.62	9.96	0.00	9.96	10.02	0.00	10.02	10.09	0.00	10.09	10.15	0.00	10.15	10.23	0.00	10.23	0.00	34%
CFWI Total	8.47	0.00	8.47	11.00	0.00	11.00	11.06	0.00	11.06	11.13	0.00	11.13	11.19	0.00	11.19	11.27	0.00	11.27	0.00	33%

^a **Note:** The actual 2015 and 5-in-10 year Demand Projections for 2020-2040 non-consumptive saline and fresh surface water use for Thermoelectric Cooling throughout the CFWI Planning Area is 0.00 million gallons per day and is therefore not presented in this table.

GW – ground water; SW – surface water; Total – GW + SW.

Table A-10a. Power generation self-supply water use for 2015 and 5-in-10 year demand projections for 2020-2040, by county and facility in the CFWI Planning Area.

County - District	Facility	Water Use			Demand Projections (5-in-10)															Percent Change 2015 -2040	
		2015			2020			2025			2030			2035			2040				
		GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total		
Orange - SFWMD	Central Energy Plant (RCID)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%
	Orlando CoGen LP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%
	SFWMD Orange Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%
Orange - SJRWMD	Orlando Utilities Commission – Stanton Power (3484130)	0.73	0.00	0.73	0.73	0.00	0.73	0.73	0.00	0.73	0.73	0.00	0.73	0.73	0.00	0.73	0.73	0.00	0.73	0.73	0%
	SJRWMD Orange Total	0.73	0.00	0.73	0.73	0.00	0.73	0.73	0.00	0.73	0.73	0.00	0.73	0.73	0.00	0.73	0.73	0.00	0.73	0.73	0%
Osceola - SFWMD	Intercession City (Duke)	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.00	0.01	0.01	0.00	0.01	0.01	0.00	0.01	0.01	0.00	0.01	0.01	N/A
	Cane Island – Kissimmee Utility Authority (49-0067-W)	0.12	0.00	0.12	0.13	0.00	0.13	0.13	0.00	0.13	0.13	0.00	0.13	0.13	0.00	0.13	0.13	0.00	0.13	0.13	8%
	SFWMD Osceola Total	0.12	0.00	0.12	0.14	0.00	0.14	0.14	0.00	0.14	0.14	0.00	0.14	0.14	0.00	0.14	0.14	0.00	0.14	0.14	17%
Osceola - SJRWMD	East Central Florida Services – GenOn Osceola (770964)	0.00	0.00	0.00	0.17	0.00	0.17	0.17	0.00	0.17	0.17	0.00	0.17	0.17	0.00	0.17	0.17	0.00	0.17	0.17	N/A
	SJRWMD Osceola Total	0.00	0.00	0.00	0.17	0.00	0.17	0.17	0.00	0.17	0.17	0.00	0.17	0.17	0.00	0.17	0.17	0.00	0.17	0.17	N/A

Note: GW – ground water; SW – surface water; Total – GW + SW.

Table A-10a. Power generation self-supply water use for 2015 and 5-in-10 year demand projections for 2020-2040, by county and facility in the CFWI Planning Area. (continued).

County - District	Facility	Water Use (Consumptive)			Demand Projections (Consumptive) (5-in-10)															Percent Change 2015 -2040
		2015			2020			2025			2030			2035			2040			
		GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	
Polk - SWFWMD	City of Lakeland - McIntosh Power Plant (47)	1.05	0.00	1.05	1.03	0.00	1.03	1.09	0.00	1.09	1.16	0.00	1.16	1.22	0.00	1.22	1.30	0.00	1.30	24%
	Larsen Memorial Power Plant (293)	0.08	0.00	0.08	0.42	0.00	0.42	0.42	0.00	0.42	0.42	0.00	0.42	0.42	0.00	0.42	0.42	0.00	0.42	425%
	Quantum Auburndale Power (10604)	0.02	0.00	0.02	1.33	0.00	1.33	1.33	0.00	1.33	1.33	0.00	1.33	1.33	0.00	1.33	1.33	0.00	1.33	6550%
	Wheelabrator Ridge Energy - Ridge (10631)	0.48	0.00	0.48	0.88	0.00	0.88	0.88	0.00	0.88	0.88	0.00	0.88	0.88	0.00	0.88	0.88	0.00	0.88	83%
	Polk Power Partners LP - TECO - Mulberry Cogeneration (10700)	0.31	0.00	0.31	0.31	0.00	0.31	0.31	0.00	0.31	0.31	0.00	0.31	0.31	0.00	0.31	0.31	0.00	0.31	0%
	Duke Energy and US Agri. Co. - Tiger Bay (10840)	1.02	0.00	1.02	1.02	0.00	1.02	1.02	0.00	1.02	1.02	0.00	1.02	1.02	0.00	1.02	1.02	0.00	1.02	0%
	Duke Energy FI - Hines (10944)	1.78	0.00	1.78	2.03	0.00	2.03	2.03	0.00	2.03	2.03	0.00	2.03	2.03	0.00	2.03	2.03	0.00	2.03	14%
	Orange Cogeneration Limited Partnership (10948)	0.30	0.00	0.30	0.26	0.00	0.26	0.26	0.00	0.26	0.26	0.00	0.26	0.26	0.00	0.26	0.26	0.00	0.26	-13%
	Tampa Electric Company - Polk Power (11747)	1.05	0.00	1.05	1.05	0.00	1.05	1.05	0.00	1.05	1.05	0.00	1.05	1.05	0.00	1.05	1.05	0.00	1.05	0%
	Duke Energy FI - Osprey Energy Center (12054)	1.53	0.00	1.53	1.63	0.00	1.63	1.63	0.00	1.63	1.63	0.00	1.63	1.63	0.00	1.63	1.63	0.00	1.63	7%
	SWFWMD Polk Total	7.62	0.00	7.62	9.96	0.00	9.96	10.02	0.00	10.02	10.09	0.00	10.09	10.15	0.00	10.15	10.23	0.00	10.23	34%
SFWMD Total	0.12	0.00	0.12	0.14	0.00	0.14	0.14	0.00	0.14	0.14	0.00	0.14	0.14	0.00	0.14	0.14	0.00	0.14	17%	
SJRWMD Total	0.73	0.00	0.73	0.90	0.00	0.90	0.90	0.00	0.90	0.90	0.00	0.90	0.90	0.00	0.90	0.90	0.00	0.90	23%	
SWFWMD Total	7.62	0.00	7.62	9.96	0.00	9.96	10.02	0.00	10.02	10.09	0.00	10.09	10.15	0.00	10.15	10.23	0.00	10.23	34%	
CFWI Total	8.47	0.00	8.47	11.00	0.00	11.00	11.06	0.00	11.06	11.13	0.00	11.13	11.19	0.00	11.19	11.27	0.00	11.27	33%	

Notes:

- 1.) All water use is shown in million gallons per day.
 - 2.) Rounding errors account for nominal discrepancies
 - 3.) 2015 water use was obtained from ECCTX model, SJRWMD EN-50 data, SJRWMD Survey data, and USGS data.
 - 5.) Consumptive surface water is assumed to be 2 percent of total surface water to account for water losses due to evaporation.
- GW – ground water; SW – surface water; Total – GW + SW

Table A-10b. 2011-2015 groundwater, non-consumptive saline, and fresh surface water use for power generation self-supply water demand Increases, in the CFWI Planning Area.

County - District	Facility	Groundwater Use					Non-Consumptive Saline and Fresh Surface Water Use				
		2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Orange - SFWMD	Central Energy Plant (RCID)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Orlando CoGen LP	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	SFWMD Orange Total	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Orange - SJRWMD	Orlando Utilities Commission - Stanton Power (3484130)	0.449	0.394	0.394	0.489	0.731	0.000	0.000	0.000	0.000	0.000
	SJRWMD Orange Total	0.449	0.394	0.394	0.489	0.731	0.000	0.000	0.000	0.000	0.000
Osceola - SFWMD	Intercession City (Duke)	0.010	0.010	0.010	0.010	0.000	0.000	0.000	0.000	0.000	0.000
	Cane Island -Kissimmee Utility Authority (49-00671-W)	0.190	0.120	0.110	0.110	0.120	0.000	0.000	0.000	0.000	0.000
	SFWMD Osceola Total	0.200	0.130	0.120	0.120	0.120	0.000	0.000	0.000	0.000	0.000
Osceola - SJRWMD	East Central Florida Services - GenOn Osceola (70964)	0.005	0.007	0.004	0.002	0.001	0.000	0.000	0.000	0.000	0.000
	SJRWMD Osceola Total	0.005	0.007	0.004	0.002	0.001	0.000	0.000	0.000	0.000	0.000
Polk - SWFWMD	City of Lakeland - McIntosh Power Plant (47)	0.863	0.949	0.883	0.574	1.054	0.000	0.000	0.000	0.000	0.000
	Larsen Memorial Power Plant (293)	0.091	0.344	0.005	0.013	0.078	0.000	0.017	0.000	0.000	0.000
	Quantum Auburndale Power (10604)	0.654	0.903	0.986	0.014	0.021	0.000	0.000	0.000	0.000	0.000
	Wheelabrator Ridge Energy - Ridge (10631)	0.427	0.541	0.516	0.492	0.482	0.000	0.000	0.000	0.000	0.000
	Polk Power Partners LP - TECO - Mulberry Cogeneration (10700)	0.321	0.315	0.307	0.304	0.313	0.000	0.000	0.000	0.000	0.000
	Duke Energy and US Agri. Co. - Tiger Bay (10840)	1.007	1.000	0.727	0.869	1.015	0.000	0.000	0.000	0.000	0.000
	Duke Energy Florida - Hines (10944)	4.594	3.672	2.094	2.646	1.782	0.000	0.000	0.000	0.000	0.000
	Orange Cogeneration Limited Partnership (10948)	0.263	0.245	0.241	0.261	0.297	0.000	0.000	0.000	0.000	0.000
	Tampa Electric Company - Polk Power (11747)	1.338	1.653	2.687	3.060	1.050	0.000	0.000	0.000	0.000	0.000
	Duke Energy Florida - Osprey Energy Center (12054)	1.683	2.187	1.776	0.975	1.529	0.000	0.000	0.000	0.000	0.000
	SWFWMD Polk Total	11.241	11.809	10.222	9.208	7.621	0.000	0.017	0.000	0.000	0.000
SFWMD Total	0.200	0.130	0.120	0.120	0.120	0.000	0.000	0.000	0.000	0.000	
SJRWMD Total	0.454	0.401	0.398	0.491	0.732	0.000	0.000	0.000	0.000	0.000	
SWFWMD Total	11.241	11.809	10.222	9.208	7.621	0.000	0.017	0.000	0.000	0.000	
CFWI Total	11.895	12.340	10.740	9.819	8.473	0.000	0.017	0.000	0.000	0.000	

Table A-10c. 2011-2015 megawatt production, five-year gallons per megawatt averages, and 2020-2040 megawatt projections for power generation self-supply water demand in the CFWI Planning Area.

County/ District	Facility	Historic Megawatts					2011-2015 Gallons per Megawatt Average		Projected Megawatts				
		2011	2012	2013	2014	2015	Consumptive	Non- consumptive	2020	2025	2030	2035	2040
Orange - SFWM	Central Energy Plant (RCID)	41.700	39.600	42.900	47.600	41.200	0.00000	0.00000	49.900	52.900	56.100	59.500	63.000
	Orlando CoGen LP	133.000	133.000	133.000	133.000	133.000	0.00000	0.00000	133.000	133.000	133.000	133.000	133.000
	SFWM Orange Total	174.700	172.600	175.900	180.600	174.200	N/A	N/A	182.900	185.900	189.100	192.500	196.000
Orange – SJRWM	Orlando Utilities Commission - Stanton Power (3484130)	1,002.6	1,009.9	1,033.3	1,096.9	1,119.6	0.00047	0.00000	1,175.9	1,191.2	1,232.7	1,468.7	1,629.5
	SJRWM Orange Total	1,002.6	1,009.9	1,033.3	1,096.9	1,119.6	N/A	N/A	1,175.9	1,191.2	1,232.7	1,468.7	1,629.5
Osceola - SFWM	Intercession City (Duke)	945.3	846.1	886.5	1019.8	906.7	8.68734E-06	0	944.8	983.3	1042.5	1104.2	1169.5
	Cane Island - Kissimmee Utility Authority (49-00671-W)	684	684	684	684	684	1.90058E-04	0	684	684	684	684	684
	SFWM Osceola Total	1629.3	1530.1	1570.5	1703.8	1590.7	N/A	N/A	1628.8	1667.3	1726.5	1788.2	1853.5
Osceola - SJRWM	East Central Florida Services - GenOn Osceola (70964)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	SJRWM Osceola Total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table A-10c. 2011-2015 megawatt production, five-year gallons per megawatt averages, and 2020-2040 megawatt projections for power generation self-supply water demand in the CFWI Planning Area (continued).

County/ District	Facility	Historic Megawatts					2011-2015 Gallons per Megawatt Average		Projected Megawatts				
		2011	2012	2013	2014	2015	Consumptive	Non- consumptive	2020	2025	2030	2035	2040
Polk - SWFWMD	City of Lakeland - McIntosh Power Plant (47)	733.5	713.3	728.2	761.0	766.7	0.00117	0.00000	884.1	930.1	987.1	1,046.0	1,109.2
	Larsen Memorial Power Plant (293)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Quantum Auburndale Power (10604)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Wheelabrator Ridge Energy - Ridge (10631)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Polk Power Partners LP - TECO - Mulberry Cogeneration (10700)	115.0	115.0	115.0	115.0	115.0	0.00271	0.00000	115.0	115.0	115.0	115.0	115.0
	Duke Energy and US Agri. Co. - Tiger Bay (10840)	183.8	164.5	172.4	198.3	176.3	0.00516	0.00000	164.3	171.0	181.3	192.1	203.4
	Duke Energy Florida - Hines (10944)	1,933.6	1,730.7	1,813.3	2,086.0	1,854.5	0.00157	0.00000	1,894.5	1,971.8	2,090.5	2,214.2	2,345.3
	Orange Cogeneration Limited Partnership (10948)	104.0	104.0	104.0	104.0	104.0	0.00251	0.00000	104.0	104.0	104.0	104.0	104.0
	Tampa Electric Company - Polk Power (11747)	722.0	686.3	742.4	823.2	713.7	0.00265	0.00000	863.7	915.7	970.8	1,029.2	1,091.2
	Duke Energy Florida - Osprey Energy Center (12054)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	426.9	444.3	471.0	489.9	528.4
SWWMD Polk Total	3,791.9	3,513.8	3,675.3	4,087.5	3,730.2	N/A	N/A	4,452.5	4,651.9	4,919.7	5,190.4	5,496.5	
SFWMD Total	1,804.0	1,702.7	1,746.4	1,884.4	1,764.9	N/A	N/A	1,811.7	1,853.2	1,915.6	1,980.7	2,049.5	
SJRWMD Total	1,002.6	1,009.9	1,033.3	1,096.9	1,119.6	N/A	N/A	1,175.9	1,191.2	1,232.7	1,468.7	1,629.5	
SWFWMD Total	3,791.9	3,513.8	3,675.3	4,087.5	3,730.2	N/A	N/A	4,452.5	4,651.9	4,919.7	5,190.4	5,496.5	
CFWI Total	6,598.5	6,226.4	6,455.0	7,068.8	6,614.7	N/A	N/A	7,440.1	7,696.3	8,068.0	8,639.8	9,175.5	

Table A-11. Public supply and domestic self-supply (DSS) and small public supply (SPS) 2015 water use and 2020-2040 demand projections by county for the CFWI Planning Area.

County/ District	Water Use			Demand Projections (5-in-10)															Percent Change 2015 - 2040	Demand Projections (1-in-10)		
	2015			2020			2025			2030			2035			2040				2040		
	Public Supply	DSS and SPS	Total	Public Supply	DSS and SPS	Total	Public Supply	DSS and SPS	Total	Public Supply	DSS and SPS	Total	Public Supply	DSS and SPS	Total	Public Supply	DSS and SPS	Total		Public Supply	DSS and SPS	Total
City of Cocoa (SJRWMD)																						
City of Cocoa Total	22.94	0.00	22.94	16.30	8.83	25.13	21.08	8.83	29.91	21.99	8.83	30.82	22.66	8.83	31.49	23.28	8.83	32.11	40%	25.21	8.83	34.04
Lake County (SJRWMD & SWFWMD)																						
SJRWMD	37.20	5.19	42.39	40.06	5.30	45.36	42.95	5.40	48.35	44.69	5.47	50.16	45.93	5.52	51.45	46.89	5.56	52.45	24%	52.44	6.43	58.87
SWFWMD	0.81	0.00	0.81	0.85	0.00	0.85	0.82	0.00	0.82	0.88	0.00	0.88	0.83	0.00	0.83	0.88	0.00	0.88	9%	1.14	0.00	1.14
Lake Total	38.01	5.19	43.20	40.91	5.30	46.21	43.77	5.40	49.17	45.57	5.47	51.04	46.76	5.52	52.28	47.77	5.56	53.33	23%	53.58	6.43	60.01
Orange County (SFWMD & SJRWMD)																						
SFWMD	49.54	3.66	53.20	95.95	3.86	99.81	105.96	4.06	110.02	115.14	4.26	119.40	127.25	4.52	131.77	137.10	4.78	141.88	167%	147.05	6.07	153.12
SJRWMD	173.28	2.05	175.33	155.77	2.17	157.94	169.91	2.26	172.17	180.49	2.32	182.81	187.62	2.37	189.99	193.59	2.41	196.00	12%	207.24	3.12	210.36
Orange Total	222.82	5.71	228.53	251.72	6.03	257.75	275.87	6.32	282.19	295.63	6.58	302.21	314.87	6.89	321.76	330.69	7.19	337.88	48%	354.29	9.19	363.48
Osceola County (SFWMD & SJRWMD)																						
SFWMD	58.87	4.49	63.36	71.44	4.84	76.28	80.10	6.05	86.15	88.25	7.38	95.63	94.65	8.52	103.17	100.10	9.44	109.54	73%	112.29	11.20	123.49
SJRWMD	18.44	9.76	28.20	18.32	9.78	28.10	19.93	9.80	29.73	21.35	9.83	31.18	22.77	9.84	32.61	24.10	9.84	34.04	21%	25.20	10.00	35.30
Osceola Total	77.31	14.25	91.56	89.76	14.62	104.38	100.03	15.85	115.88	109.60	17.21	126.81	117.42	18.36	135.78	124.20	19.28	143.58	57%	137.49	21.20	158.79
Polk County (SFWMD & SWFWMD)																						
SFWMD	12.18	1.60	13.78	11.47	1.63	13.10	11.97	1.66	13.63	12.49	1.69	14.18	12.80	1.70	14.50	13.23	1.73	14.96	9%	14.84	2.02	16.86
SWFWMD	203.14	4.23	207.37	221.25	4.33	225.58	228.07	4.38	232.45	238.04	4.49	242.53	241.97	4.56	246.53	247.38	4.61	251.99	22%	292.63	6.35	298.98
Polk Total	215.32	5.83	221.15	232.72	5.96	238.68	240.04	6.04	246.08	250.53	6.18	256.71	254.77	6.26	261.03	260.61	6.34	266.95	21%	307.47	8.37	315.84
Seminole County (SJRWMD)																						
Seminole Total	58.35	1.39	59.74	61.63	1.46	63.09	64.74	1.52	66.26	65.99	3.07	69.06	67.48	4.12	71.60	68.58	5.16	73.74	23%	73.25	5.59	78.84
Total Water Use																						
SFWMD Total	120.59	9.75	130.34	178.86	10.33	189.19	198.03	11.77	209.80	215.88	13.33	229.21	234.70	14.74	249.44	250.43	15.95	266.38	104%	274.18	19.29	293.47
SJRWMD Total	310.21	18.39	328.60	292.08	27.54	319.62	318.61	27.81	346.42	334.51	29.52	364.03	346.46	30.68	377.14	356.44	31.80	388.34	18%	383.34	33.97	417.41
SWFWMD Total	203.95	4.23	208.18	222.10	4.33	226.43	228.89	4.38	233.27	238.92	4.49	243.41	242.80	4.56	247.36	248.26	4.61	252.87	21%	293.77	6.35	300.12
CFWI Total	634.75	32.37	667.12	693.04	42.20	735.24	745.53	43.96	789.49	789.31	47.34	836.65	823.96	49.98	873.94	855.13	52.36	907.59	36%	951.29	59.61	1,011.00

Notes for Table A-11:

All water use is shown in million gallons per day (mgd).

Rounding errors account for nominal discrepancies.

public water supply utility service areas often include residences that derive their water supply from privately owned (domestic self-supply) wells. Typically, these domestic self-supply water uses existed prior to their locations becoming part of public water supply service areas. For public water supply service areas, the Districts do not have sufficient information to separate the population served by public supply systems from those served by domestic self-supply wells. Therefore, public water supply population estimated by the Districts often include some domestic self-supply population.

Table A-12a. Lake County: Water use for 2015 and 5-in-10 year total water demand projections for 2020-2040 and 1-in-10 year water demand projections for 2040, by category of use and by district.

Category/ District	Water Use			Demand Projections (5-in-10)															Percent Change 2015- 2040	Demand Projections (1-in-10)		
	2015			2020			2025			2030			2035			2040				2040		
	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total		GW	SW	Total
Public Supply																						
SJRWMD	16.86	0.00	16.86	20.54	0.00	20.54	23.34	0.00	23.34	25.23	0.00	25.23	26.71	0.00	26.71	28.16	0.00	28.16	67%	29.85	0.00	29.85
SWFWMD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00
Total	16.86	0.00	16.86	20.54	0.00	20.54	23.34	0.00	23.34	25.23	0.00	25.23	26.71	0.00	26.71	28.16	0.00	28.16	67%	29.85	0.00	29.85
Domestic Self supply and Small Public Supply Systems																						
SJRWMD	1.44	0.00	1.44	0.90	0.00	0.90	0.99	0.00	0.99	1.06	0.00	1.06	1.14	0.00	1.14	1.20	0.00	1.20	-17%	1.26	0.00	1.26
SWFWMD	0.14	0.00	0.14	0.17	0.00	0.17	0.20	0.00	0.20	0.24	0.00	0.24	0.27	0.00	0.27	0.31	0.00	0.31	121%	0.33	0.00	0.33
Total	1.58	0.00	1.58	1.07	0.00	1.07	1.19	0.00	1.19	1.30	0.00	1.30	1.41	0.00	1.41	1.51	0.00	1.51	-4%	1.59	0.00	1.59
Agricultural Irrigation Self-supply																						
SJRWMD	12.46	0.56	13.02	11.50	0.52	12.02	10.92	0.49	11.41	10.28	0.46	10.74	9.62	0.43	10.05	8.74	0.39	9.13	-30%	12.12	0.54	12.66
SWFWMD	0.67	0.00	0.67	0.68	0.00	0.68	0.62	0.00	0.62	0.64	0.00	0.64	0.56	0.00	0.56	0.57	0.00	0.57	-15%	0.81	0.00	0.81
Total	13.13	0.56	13.69	12.18	0.52	12.70	11.54	0.49	12.03	10.92	0.46	11.38	10.18	0.43	10.61	9.31	0.39	9.70	-29%	12.93	0.54	13.47
Landscape/Recreational Self-supply																						
SJRWMD	2.36	4.25	6.61	2.41	4.34	6.75	2.45	4.42	6.87	2.48	4.48	6.96	2.50	4.53	7.03	2.52	4.58	7.10	7%	2.94	5.30	8.24
SWFWMD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00
Total	2.36	4.25	6.61	2.41	4.34	6.75	2.45	4.42	6.87	2.48	4.48	6.96	2.50	4.53	7.03	2.52	4.58	7.10	7%	2.94	5.30	8.24
Commercial / Industrial / Institutional Self-supply																						
SJRWMD	4.08	0.38	4.46	4.71	0.44	5.15	5.25	0.49	5.74	5.64	0.53	6.17	5.96	0.56	6.52	6.27	0.59	6.86	54%	6.27	0.59	6.86
SWFWMD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00
Total	4.08	0.38	4.46	4.71	0.44	5.15	5.25	0.49	5.74	5.64	0.53	6.17	5.96	0.56	6.52	6.27	0.59	6.86	54%	6.27	0.59	6.86
Power Generation Self-supply																						
SJRWMD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00
SWFWMD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00
Lake County (CFWI)																						
SJRWMD	37.20	5.19	42.39	40.06	5.30	45.36	42.95	5.40	48.35	44.69	5.47	50.16	45.93	5.52	51.45	46.89	5.56	52.45	24%	52.44	6.43	58.87
SWFWMD	0.81	0.00	0.81	0.85	0.00	0.85	0.82	0.00	0.82	0.88	0.00	0.88	0.83	0.00	0.83	0.88	0.00	0.88	9%	1.14	0.00	1.14
CFWI Total	38.01	5.19	43.20	40.91	5.30	46.21	43.77	5.4	49.17	45.57	5.47	51.04	46.76	5.52	52.28	47.77	5.56	53.33	23%	53.58	6.43	60.01

Notes:

All water use is shown in million gallons per day (mgd).

Rounding errors account for nominal discrepancies.

GW – ground water; SW – surface water; Total – GW + SW

Table A-12b. Orange County: Water use for 2015 and 5-in-10 year total water demand projections for 2020-2040 and 1-in-10 year water demand projections for 2040, by category of use and by district.

Category/ District	Water Use			Demand Projections (5-in-10)															Percent Change 2015- 2040	Demand Projections (1-in-10)		
	2015			2020			2025			2030			2035			2040				2040		
	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total		GW	SW	Total
Public Supply																						
SFWMD	34.73	0.00	34.73	80.36	0.00	80.36	89.56	0.00	89.56	97.72	0.00	97.72	108.74	0.00	108.74	117.52	0.00	117.52	238%	124.57	0.00	124.57
SJRWMD	153.23	0.00	153.23	135.72	0.04	135.76	149.62	0.04	149.66	159.99	0.04	160.03	167.01	0.04	167.05	172.92	0.04	172.96	13%	183.30	0.04	183.34
Total	187.96	0.00	187.96	216.08	0.04	216.12	239.18	0.04	239.22	257.71	0.04	257.75	275.75	0.04	275.79	290.44	0.04	290.48	55%	307.87	0.04	307.91
Domestic Self-supply and Small Public Supply Systems																						
SFWMD	5.76	0.00	5.76	5.87	0.00	5.87	6.02	0.00	6.02	6.32	0.00	6.32	6.57	0.00	6.57	6.76	0.00	6.76	17%	7.16	0.00	7.16
SJRWMD	8.64	0.00	8.64	8.29	0.00	8.29	8.06	0.00	8.06	7.86	0.00	7.86	7.64	0.00	7.64	7.37	0.00	7.37	-15%	7.80	0.00	7.80
Total	14.40	0.00	14.40	14.16	0.00	14.16	14.08	0.00	14.08	14.18	0.00	14.18	14.21	0.00	14.21	14.13	0.00	14.13	-2%	14.96	0.00	14.96
Agricultural Irrigation Self-supply																						
SFWMD	0.99	0.10	1.09	0.99	0.10	1.09	1.00	0.10	1.10	1.04	0.10	1.14	1.05	0.11	1.16	1.08	0.11	1.19	9%	1.48	0.15	1.63
SJRWMD	7.08	0.21	7.29	7.11	0.21	7.32	7.26	0.22	7.48	7.42	0.22	7.64	7.59	0.23	7.82	7.79	0.23	8.02	10%	10.26	0.30	10.56
Total	8.07	0.31	8.38	8.10	0.31	8.41	8.26	0.32	8.58	8.46	0.32	8.78	8.64	0.34	8.98	8.87	0.34	9.21	10%	11.74	0.45	12.19
Landscape/Recreational Self-supply																						
SFWMD	5.91	3.56	9.47	6.24	3.76	10.00	6.56	3.96	10.52	6.90	4.16	11.06	7.31	4.41	11.72	7.73	4.67	12.40	31%	9.83	5.92	15.75
SJRWMD	1.00	1.69	2.69	1.04	1.75	2.79	1.08	1.81	2.89	1.11	1.86	2.97	1.13	1.89	3.02	1.14	1.92	3.06	14%	1.51	2.56	4.07
Total	6.91	5.25	12.16	7.28	5.51	12.79	7.64	5.77	13.41	8.01	6.02	14.03	8.44	6.30	14.74	8.87	6.59	15.46	27%	11.34	8.48	19.82
Commercial / Industrial / Institutional Self-supply																						
SFWMD	2.15	0.00	2.15	2.49	0.00	2.49	2.82	0.00	2.82	3.16	0.00	3.16	3.58	0.00	3.58	4.01	0.00	4.01	87%	4.01	0.00	4.01
SJRWMD	2.60	0.15	2.75	2.88	0.17	3.05	3.16	0.19	3.35	3.38	0.20	3.58	3.52	0.21	3.73	3.64	0.22	3.86	40%	3.64	0.22	3.86
Total	4.75	0.15	4.90	5.37	0.17	5.54	5.98	0.19	6.17	6.54	0.20	6.74	7.10	0.21	7.31	7.65	0.22	7.87	61%	7.65	0.22	7.87
Power Generation Self-supply																						
SFWMD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00
SJRWMD	0.73	0.00	0.73	0.73	0.00	0.73	0.73	0.00	0.73	0.73	0.00	0.73	0.73	0.00	0.73	0.73	0.00	0.73	0%	0.73	0.00	0.73
Total	0.73	0.00	0.73	0.73	0.00	0.73	0.73	0.00	0.73	0.73	0.00	0.73	0.73	0.00	0.73	0.73	0.00	0.73	0%	0.73	0.00	0.73
Orange County Total																						
SFWMD	49.54	3.66	53.20	95.95	3.86	99.81	105.96	4.06	110.02	115.14	4.26	119.40	127.25	4.52	131.77	137.10	4.78	141.88	167%	147.05	6.07	153.12
SJRWMD	173.28	2.05	175.33	155.77	2.17	157.94	169.91	2.26	172.17	180.49	2.32	182.81	187.62	2.37	189.99	193.59	2.41	196.00	12%	207.24	3.12	210.36
Total	222.82	5.71	228.53	251.72	6.03	257.75	275.87	6.32	282.19	295.63	6.58	302.21	314.87	6.89	321.76	330.69	7.19	337.88	48%	354.29	9.19	363.48

Notes:

All water use is shown in million gallons per day (mgd).

Rounding errors account for nominal discrepancies.

GW – ground water; SW – surface water; Total – GW + SW

Table A-12c. Osceola County: Water use for 2015 and 5-in-10 year total water demand projections for 2020-2040 and 1-in-10 year water demand projections for 2040, by category of use and by district.

Category/ District	Water Use			Demand Projections (5-in-10)															Percent Change 2015- 2040	Demand Projections (1-in-10)		
	2015			2020			2025			2030			2035			2040				2040		
	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total		GW	SW	Total
Public Supply																						
SFWMD	34.68	0.00	34.68	46.23	0.13	46.36	53.45	1.09	54.54	59.98	2.16	62.14	64.89	3.06	67.95	68.87	3.75	72.62	109%	73.00	3.98	76.98
SJRWMD	0.13	0.00	0.13	0.05	0.00	0.05	0.05	0.00	0.05	0.05	0.00	0.05	0.05	0.00	0.05	0.05	0.00	0.05	-62%	0.05	0.00	0.05
Total	34.81	0.00	34.81	46.28	0.13	46.41	53.50	1.09	54.59	60.03	2.16	62.19	64.94	3.06	68.00	68.92	3.75	72.67	109%	73.05	3.98	77.03
Domestic Self supply and Small Public Supply Systems																						
SFWMD	0.74	0.00	0.74	0.86	0.00	0.86	1.23	0.00	1.23	1.65	0.00	1.65	1.89	0.00	1.89	2.09	0.00	2.09	182%	2.20	0.00	2.20
SJRWMD	0.14	0.00	0.14	0.22	0.00	0.22	0.30	0.00	0.30	0.38	0.00	0.38	0.44	0.00	0.44	0.52	0.00	0.52	N/A	0.55	0.00	0.55
Total	0.88	0.00	0.88	1.08	0.00	1.08	1.53	0.00	1.53	2.03	0.00	2.03	2.33	0.00	2.33	2.61	0.00	2.61	197%	2.75	0.00	2.75
Agricultural Irrigation Self-supply																						
SFWMD	17.86	2.22	20.08	18.16	2.26	20.42	18.65	2.32	20.97	19.29	2.40	21.69	20.10	2.50	22.60	21.01	2.61	23.62	18%	27.47	3.41	30.88
SJRWMD	18.17	9.76	27.93	17.88	9.78	27.66	19.41	9.80	29.21	20.75	9.83	30.58	22.11	9.84	31.95	23.36	9.84	33.30	19%	24.43	10.00	34.53
Total	36.03	11.98	48.01	36.04	12.04	48.08	38.06	12.12	50.18	40.04	12.23	52.27	42.21	12.34	54.55	44.37	12.45	56.92	19%	51.90	13.41	65.41
Landscape/Recreational Self-supply																						
SFWMD	4.55	2.27	6.82	4.92	2.45	7.37	5.29	2.64	7.93	5.65	2.82	8.47	5.93	2.96	8.89	6.16	3.08	9.24	35%	7.65	3.81	11.46
SJRWMD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00
Total	4.55	2.27	6.82	4.92	2.45	7.37	5.29	2.64	7.93	5.65	2.82	8.47	5.93	2.96	8.89	6.16	3.08	9.24	35%	7.65	3.81	11.46
Commercial / Industrial / Institutional Self-supply																						
SFWMD	0.92	0.00	0.92	1.13	0.00	1.13	1.34	0.00	1.34	1.54	0.00	1.54	1.70	0.00	1.70	1.83	0.00	1.83	N/A	1.83	0.00	1.83
SJRWMD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00
Total	0.92	0.00	0.92	1.13	0.00	1.13	1.34	0.00	1.34	1.54	0.00	1.54	1.70	0.00	1.70	1.83	0.00	1.83	N/A	1.83	0.00	1.83
Power Generation Self-supply																						
SFWMD	0.12	0.00	0.12	0.14	0.00	0.14	0.14	0.00	0.14	0.14	0.00	0.14	0.14	0.00	0.14	0.14	0.00	0.14	17%	0.14	0.00	0.14
SJRWMD	0.00	0.00	0.00	0.17	0.00	0.17	0.17	0.00	0.17	0.17	0.00	0.17	0.17	0.00	0.17	0.17	0.00	0.17	N/A	0.17	0.00	0.17
Total	0.12	0.00	0.12	0.31	0.00	0.31	0.31	0.00	0.31	0.31	0.00	0.31	0.31	0.00	0.31	0.31	0.00	0.31	158%	0.31	0.00	0.31
Osceola County Total																						
SFWMD	58.87	4.49	63.36	71.44	4.84	76.28	80.10	6.05	86.15	88.25	7.38	95.63	94.65	8.52	103.17	100.10	9.44	109.54	73%	112.29	11.20	123.49
SJRWMD	18.44	9.76	28.20	18.32	9.78	28.10	19.93	9.80	29.73	21.35	9.83	31.18	22.77	9.84	32.61	24.10	9.84	34.04	21%	25.20	10.00	35.30
Total	77.31	14.25	91.56	89.76	14.62	104.38	100.03	15.85	115.88	109.60	17.21	126.81	117.42	18.36	135.78	124.20	19.28	143.58	57%	137.49	21.20	158.79

Notes:

All water use is shown in million gallons per day.

Rounding errors account for nominal discrepancies

GW – ground water; SW – surface water; Total – GW + SW.

Table A-12d. Polk County: Water use for 2015 and 5-in-10 year total water supply demand projections for 2020-2040 and 1-in-10 year water demand projections for 2040, by category of use and by district.

Category/ District	Water Use			Demand Projections (5-in-10)															Percent Change 2015- 2040	Demand Projections (1-in-10)			
	2015			2020			2025			2030			2035			2040				2040			
	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total		GW	SW	Total	
Public Supply																							
SFWMD	5.13	0.00	5.13	4.16	0.00	4.16	4.42	0.00	4.42	4.70	0.00	4.70	4.93	0.00	4.93	5.15	0.00	5.15	0%	5.46	0.00	5.46	
SWFWMD	64.61	0.00	64.61	73.82	0.00	73.82	80.08	0.00	80.08	85.25	0.00	85.25	90.23	0.00	90.23	94.66	0.00	94.66	47%	100.35	0.00	100.35	
Total	69.74	0.00	69.74	77.98	0.00	77.98	84.50	0.00	84.50	89.95	0.00	89.95	95.16	0.00	95.16	99.81	0.00	99.81	43%	105.81	0.00	105.81	
Domestic Self supply and Small Public Supply Systems																							
SFWMD	0.84	0.00	0.84	1.00	0.00	1.00	1.13	0.00	1.13	1.26	0.00	1.26	1.36	0.00	1.36	1.44	0.00	1.44	71%	1.51	0.00	1.51	
SWFWMD	2.90	0.00	2.90	3.24	0.00	3.24	3.51	0.00	3.51	3.73	0.00	3.73	3.94	0.00	3.94	4.15	0.00	4.15	43%	4.31	0.00	4.31	
Total	3.74	0.00	3.74	4.24	0.00	4.24	4.64	0.00	4.64	4.99	0.00	4.99	5.30	0.00	5.30	5.59	0.00	5.59	49%	5.82	0.00	5.82	
Agricultural Irrigation Self-supply																							
SFWMD	3.63	0.68	4.31	3.64	0.68	4.32	3.69	0.69	4.38	3.74	0.70	4.44	3.67	0.69	4.36	3.76	0.70	4.46	3%	4.64	0.87	5.51	
SWFWMD	79.27	2.56	81.83	78.30	2.53	80.83	77.85	2.51	80.36	78.15	2.52	80.67	78.81	2.55	81.36	79.06	2.55	81.61	0%	115.88	3.74	119.62	
Total	82.90	3.24	86.14	81.94	3.21	85.15	81.54	3.20	84.74	81.89	3.22	85.11	82.48	3.24	85.72	82.82	3.25	86.07	0%	120.52	4.61	125.13	
Landscape/Recreational Self-supply																							
SFWMD	2.56	0.92	3.48	2.64	0.95	3.59	2.70	0.97	3.67	2.76	0.99	3.75	2.81	1.01	3.82	2.85	1.03	3.88	11%	3.20	1.15	4.35	
SWFWMD	5.93	1.28	7.21	6.28	1.35	7.63	6.60	1.42	8.02	6.86	1.48	8.34	7.11	1.54	8.65	7.34	1.59	8.93	24%	9.92	2.14	12.06	
Total	8.49	2.20	10.69	8.92	2.30	11.22	9.30	2.39	11.69	9.62	2.47	12.09	9.92	2.55	12.47	10.19	2.62	12.81	20%	13.12	3.29	16.41	
Commercial / Industrial / Institutional Self-supply																							
SFWMD	0.02	0.00	0.02	0.03	0.00	0.03	0.03	0.00	0.03	0.03	0.00	0.03	0.03	0.00	0.03	0.03	0.00	0.03	50%	0.03	0.00	0.03	
SWFWMD	42.81	0.39	43.20	49.65	0.45	50.10	50.01	0.45	50.46	53.96	0.49	54.45	51.73	0.47	52.20	51.94	0.47	52.41	21%	51.94	0.47	52.41	
Total	42.83	0.39	43.22	49.68	0.45	50.13	50.04	0.45	50.49	53.99	0.49	54.48	51.76	0.47	52.23	51.97	0.47	52.44	21%	51.97	0.47	52.44	
Power Generation Self-supply																							
SFWMD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00	
SWFWMD	7.62	0.00	7.62	9.96	0.00	9.96	10.02	0.00	10.02	10.09	0.00	10.09	10.15	0.00	10.15	10.23	0.00	10.23	34%	10.23	0.00	10.23	
Total	7.62	0.00	7.62	9.96	0.00	9.96	10.02	0.00	10.02	10.09	0.00	10.09	10.15	0.00	10.15	10.23	0.00	10.23	34%	10.23	0.00	10.23	
Polk County Total																							
SFWMD	12.18	1.60	13.78	11.47	1.63	13.10	11.97	1.66	13.63	12.49	1.69	14.18	12.80	1.70	14.50	13.23	1.73	14.96	9%	14.84	2.02	16.86	
SWFWMD	203.14	4.23	207.37	221.25	4.33	225.58	228.07	4.38	232.45	238.04	4.49	242.53	241.97	4.56	246.53	247.38	4.61	251.99	22%	292.63	6.35	298.98	
Total	215.32	5.83	221.15	232.72	5.96	238.68	240.04	6.04	246.08	250.53	6.18	256.71	254.77	6.26	261.03	260.61	6.34	266.95	21%	307.47	8.37	315.84	

Notes:

All water use is shown in million gallons per day (mgd).

Rounding errors account for nominal discrepancies.

GW – ground water; SW – surface water; Total – GW + SW

Table A-12e. Seminole County: Water use for 2015 and 5-in-10 year total water demand projections for 2020-2040 and 1-in-10 year water demand projections for 2040, by category of use and by district.

Category/ District	Water Use			Demand Projections (5-in-10)															Percent Change 2015- 2040	Demand Projections (1-in-10)		
	2015			2020			2025			2030			2035			2040				2040		
	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total		GW	SW	Total
Public Supply																						
SJRWMD	53.66	0.00	53.66	57.29	0.00	57.29	60.87	0.00	60.87	62.42	1.50	63.92	64.16	2.50	66.66	65.55	3.50	69.05	29%	69.69	3.50	73.19
Domestic Self supply and Small Public Supply Systems																						
SJRWMD	0.96	0.00	0.96	0.89	0.00	0.89	0.88	0.00	0.88	0.80	0.00	0.80	0.79	0.00	0.79	0.75	0.00	0.75	-22%	0.78	0.00	0.78
Agricultural Irrigation Self-supply																						
SJRWMD	3.16	0.00	3.16	2.85	0.00	2.85	2.36	0.00	2.36	2.12	0.00	2.12	1.86	0.00	1.86	1.59	0.00	1.59	-50%	1.93	0.00	1.93
Landscape/Recreational Self-supply																						
SJRWMD	0.57	1.39	1.96	0.60	1.46	2.06	0.63	1.52	2.15	0.65	1.57	2.22	0.67	1.62	2.29	0.69	1.66	2.35	20%	0.85	2.09	2.94
Commercial / Industrial / Institutional Self-supply																						
SJRWMD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00
Power Generation Self-supply																						
SJRWMD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00
Seminole County Total																						
Total	58.35	1.39	59.74	61.63	1.46	63.09	64.74	1.52	66.26	65.99	3.07	69.06	67.48	4.12	71.60	68.58	5.16	73.74	23%	73.25	5.59	78.84

Notes:

All water use is shown in million gallons per day (mgd).

Rounding errors account for nominal discrepancies.

GW – ground water; SW – surface water; Total – GW + SW

Table A-13a. Reuse flows and 2040 population projections by facility, county, and district in the CFWI Planning Area.

County/District	Facility Name and ID#	Total Service Area Population		Septic Population		Adjusted Service Area		2015-2040 Population Increase	2015 Total WW Flows
		2015	2040	2015	2040	2015	2040		
Lake (CFWI) SJRWMD	Clerbrook RV & Golf Resort – FLA010538	2,747	2,772	-	-	2,747	2,772	25	0.04
	Clermont, City of - East – WWTF - FLA010515	36,070	53,648	3,016	3,431	33,055	50,217	17,162	2.64
	Groveland- Sunshine Parkway WWTF FLA010656	NA	NA	-	-	NA	NA	-	0.34
	Groveland/Sampey Rd. – WWTF FLA010513	16,315	28,072	5,842	7,062	10,472	21,010	10,538	0.47
	Lake Groves WWTF FLA010630	NA	NA	-	-	NA	NA	NA	0.46
	Minneola, City of WWTF FLA356344	15,636	26,115	14,237	15,206	1,399	10,909	9,510	0.19
	Pine Island FLA297631	NA	NA	-	-	NA	NA	-	0.23
	Southlake Utilities FLA010634	7,044	13,462	2	2	7,042	13,460	6,418	0.73
	SJRWMD Lake (CFWI) County Total	77,811	124,069	23,096	25,701	54,715	98,368	43,653	5.10
Orange SFWMD	OCUD - South WRF FLA107972	271,184	436,745	8,368	11,066	262,817	425,679	162,862	34.86
	Orlando - Water Conserv I WRF FLA010816	35,785	92,557	36	36	35,749	92,521	56,772	4.36
	Orlando - Water Conserv II (McLeod Rd) FLA010814	115,494	130,595	1,655	1,666	113,839	128,929	15,090	14.37
	Reedy Creek Improvement District WRF FLA108219	NA	NA	-	-	NA	NA	NA	13.44
	SFWMD Orange County Total	422,464	659,896	10,059	12,768	412,405	647,128	234,724	67.03

Table A-13a. Reuse flows and 2040 population projections by facility, county, and district in the CFWI Planning Area (continued).

County/District	Facility Name and ID#	Total Service Area Population		Septic Population		Adjusted Service Area		2015-2040 Population Increase	2015 Total WW Flows
		2015	2040	2015	2040	2015	2040		
Orange - SJRWMD	Apopka WRF - Project Arrow FLA010818	68,692	134,160	4,737	6,116	63,955	128,045	64,090	5.97
	Winter Park Estates WWTF FLA010819	NA	NA	-	-	NA	NA	-	0.34
	Fairways Country Club WWTF FLA010823	NA	NA	-	-	NA	NA	NA	0.12
	Gulfstream Harbor WWTF FLA010835	NA	NA	-	-	NA	NA	-	0.03
	Ocoee, City of – WWTF FLA010815	31,729	47,744	3,021	3,506	28,709	44,237	15,529	1.60
	OCUD – Eastern WRF	301,302	485,897	14,132	14,797	287,170	471,100	183,930	18.89
	OCUD – Northwest WRF	165,136	195,523	25,644	26,025	139,491	169,497	30,006	5.78
	Rock Springs MHP WWTF FLA010871	1,956	2,107	-	-	1,956	2,107	151	0.14
	Wedgefield WWTF FLA010900	4,346	5,037	-	-	4,346	5,037	691	0.26
	Winter Garden, City of – WWTF FL0020109	43,119	72,109	798	949	42,321	71,160	28,840	3.10
SJRWMD Orange County Total	616,281	942,577	48,333	51,394	567,948	891,183	323,235	36.23	
Osceola - SFWMD	St Cloud - Southside WRF FLA010962	66,142	165,547	7,256	7,821	58,886	157,726	98,840	3.32
	TWA - Camelot WRF FLA010983	-	-	-	-	-	-	-	3.79
	TWA - Cypress West WRF FLA109843	-	-	-	-	-	-	-	2.69
	TWA - Harmony WRF FLA267872	-	-	-	-	-	-	-	0.11
	TWA - Northeast District (Future)	-	-	-	-	-	-	-	-
	TWA - Parkway WWTF FLA010960	-	-	-	-	-	-	-	0.94
	TWA - Sandhill Road WRF FLA010958	-	-	-	-	-	-	-	3.88
	TWA - South Bermuda WRF FLA010957	270,157	458,148	8,243	11,268	261,914	446,880	184,966	11.29
	SFWMD Osceola County Total	336,299	623,695	15,500	19,089	320,800	604,606	283,806	26.02

Table A-13a. Reuse flows and 2040 population projections by facility, county, and district in the CFWI Planning Area (continued).

County/ District	Facility Name and ID#	Total Service Area Population		Septic Population		Adjusted Service Area		2015-2040 Population Increase	2015 Total WW Flows
		2015	2040	2015	2040	2015	2040		
Polk - SFWMD	Avon Park Correctional Institute FL0040029	1,485	1,503	-	-	1,485	1,503	18	0.29
	Gold Coast Utility WWTF (Lakeshore Club) FLA110434	NA	NA	-	-	NA	NA	NA	0.07
	TWA - Lake Marion WRF FLA010979	-	-	-	-	-	-	-	1.05
	TWA - Walnut Drive WRF FL0036862	-	-	-	-	-	-	-	0.86
	SFWMD Polk County Total	1,485	1,503	-	-	1,485	1,503	18	2
Polk - SWFWMD	Auburndale Regional WWTF FLA016559	33,406	48,540	4,263	4,509	29,143	44,032	14,889	1.31
	Auburndale, City of - Allred WWTF FL0021466	-	-	-	-	-	-	-	1.17
	Bartow City of WRF FLA012976	24,706	33,842	1,308	1,446	23,397	32,396	8,998	2.83
	Carefree RV Country Club FLA013093	NA	NA	-	-	NA	NA	NA	0.03
	Cypress Lakes WWTF FLA013123	2,778	2,882	-	-	2,778	2,882	104	0.10
	Davenport, City of – WWTF FLA377392	5,581	16,269	4,125	4,522	1,457	11,747	10,688	0.06
	Polk Correctional Institution FLA013360	NA	NA	-	-	NA	NA	-	0.23
	Dundee, Town of WWTF FLA180416	4,721	8,753	1,271	1,306	3,450	7,448	3,998	0.12
	Fort Meade, City of FLA016529	7,818	9,725	620	665	7,198	9,060	1,861	0.49
	Frostproof City of WWTF FLA012983	3,861	5,201	316	356	3,545	4,845	1,300	0.12
	Haines City, City of FLA012977	25,488	44,214	2,671	3,074	22,817	41,139	18,322	1.48
	Lake Alfred, City of FLA012975	8,687	13,602	667	700	8,020	12,902	4,882	0.49
	Lake Wales, City of FLA129844	23,453	35,391	2,251	2,443	21,203	32,948	11,746	1.15

Table A-13a. Reuse flows and 2040 population projections by facility, county, and district in the CFWI Planning Area. (Continued).

County/ District	Facility Name and ID#	Total Service Area Population		Septic Population		Adjusted Service Area		2015-2040 Population Increase	2015 Total WW Flows
		2015	2040	2015	2040	2015	2040		
Polk – SWFWMD (continued)	Lakeland, City of - Glendale WRF FL0039772	85,171	105,476	6,809	8,280	78,362	97,196	18,834	9.06
	Lakeland, City of - Northside WWTF FLA012985	40,445	51,511	2,821	2,967	37,624	48,544	10,921	3.95
	Streamsong FLA760838	NA	NA	-	-	NA	NA	-	0.02
	Mulberry, City of FL0020338	4,288	5,796	212	224	4,076	5,572	1,497	0.34
	Outdoor Resorts at Orlando WWTF FLA011047	NA	NA	-	-	NA	NA	-	0.11
	Cardinal Hill (Polk City) WWTF FLA489093	437	505	56	57	381	448	67	0.12
	Polk County - Northeast Regional WWTF FLA012967	36,684	59,147	777	886	35,908	58,261	22,353	3.01
	Polk County - Northwest Regional WWTF FLA178667	41,263	61,914	34,223	41,401	7,040	20,513	13,473	0.92
	Polk County - Southwest Regional WWTF FLA012954	51,598	70,132	38,932	41,440	12,666	28,691	16,025	1.59
	Polk County - Waverly WWTF FLA012968	714	1,075	128	129	586	945	359	0.03
	Polk County Sun Ray WWTF FLA012949	465	504	55	56	410	448	38	0.28
	Sweetwater Golf & Tennis Club FLA013082	NA	NA	-	-	NA	NA	-	0.05
	Swiss Golf Club FLA013103	1,359	1,382	-	-	1,359	1,382	22	0.06
	Swiss Village MHP FLA013102	1,649	1,732	-	-	1,649	1,732	83	0.04
	Grenelefe Resort Center FLA013016	2,269	2,295	-	-	2,269	2,295	26	0.10
	Winter Haven, City of - WWTP #2 FLA129747	75,028	99,747	5,340	6,006	69,688	93,740	24,052	1.10
	Winter Haven, City of - WWTP#3 FL0036048	NA	NA	NA	NA	NA	NA	NA	3.99
	SWFWMD Polk County Total	481,869	674,150	106,843	120,467	375,025	553,682	178,657	34.35

Table A-13a. Reuse flows and 2040 population projections by facility, county, and district in the CFWI Planning Area (continued).

County/ District	Facility Name and ID#	Total Service Area Population		Septic Population		Adjusted Service Area		2015-2040 Population Increase	2015 Total WW Flows
		2015	2040	2015	2040	2015	2040		
Seminole - SJRWMD	Altamonte Springs Regional WRF ¹ FL0033251	62,026	70,286	2,885	3,025	59,141	67,261	8,120	6.70
	Casselberry, City of – WWTF FLA011066	17,828	19,368	213	175	17,616	19,193	1,577	0.84
	FGUA/Chuluota WWTF FLA011076	4,984	6,624	31	31	4,953	6,592	1,640	0.14
	Longwood/Shadow Hills WWTF ² FLA011105	5,999	6,674	5	5	5,994	6,669	675	0.38
	Orlando - Iron Bridge Regional WRF FL0037966	280,224	319,044	11,455	12,041	268,768	307,002	38,234	22.03
	Oviedo WRF FLA011074	21,503	24,917	-	-	21,503	24,917	3,414	1.77
	Palm Valley MHP WWTF FLA011085	NA	NA	-	-	NA	NA	-	0.09
	Sanford - South WRF #2 FLA181714	-	-	-	-	-	-	-	1.42
	Sanford, City of - North WWTF FL0020141	79,192	113,661	7,379	7,845	71,814	105,816	34,003	5.13
	Seminole County - Greenwood Lakes WRF FLA011086	19,669	24,454	976	1,641	18,693	22,813	4,120	2.13
	Seminole County - Yankee Lake WWTF FLA042625	35,946	56,998	3,091	3,816	32,854	53,182	20,328	2.41
	Wekiva Hunt Club WWTP FL0036251	37,867	41,408	2,303	2,305	35,563	39,103	3,540	2.04
	Winter Springs, City of - East WWTF FLA011068	-	-	-	-	-	-	-	1.10
	Winter Springs, City of - West WWTF FLA011067	34,426	40,943	1,246	1,251	33,179	39,692	6,513	1.22
	SJRWMD Seminole County Total	599,663	724,377	29,585	32,135	570,079	692,242	122,163	47.40

Notes:

1 – Includes population from Longwood service area

2 – Facility planned to be decommissioned

Table A-13b. Summary: 2040 population projections by District in the CFWI Planning Area.

District Totals	Total Service Area Population		Septic Population		Adjusted Service Area		2015-2040 Population Increase	2015 Total WW Flows
	2015	2040	2015	2040	2015	2040		
SFWMD Totals	760,248	1,285,094	25,559	31,857	734,689	1,253,237	518,548	95.32
SJRWMD Totals	1,293,755	1,791,023	101,014	109,230	1,192,741	1,681,793	489,052	88.73
SWFWMD Totals	481,869	674,150	106,843	120,467	375,025	553,682	178,657	34.35
CFWI Planning Area Totals	2,535,872	3,750,266	233,416	261,554	2,302,456	3,488,713	1,186,257	218.40

Table A-13c. 2015 Reuse flows and reuse categories by facility, county, and district in the CFWI Planning Area.

County/ District	Facility Name and ID#	2015												
		Total WW Flows	Reuse CFWI	Supple- mental flows	WW Disposal	Residential Irrigation/ Landscape	Golf courses	Agriculture Irrigation	Sprayfields	Recharge/ RIBS	IPR	Industrial	Wetlands	Other Reuse
Lake (CFWI) SJRWMD	Clerbrook RV & Golf Resort – FLA010538	0.04	0.04	-	-	-	-	-	-	0.04	-	-	-	-
	Clermont, City of - East – WWTF - FLA010515	2.64	2.69	0.05	-	1.98	0.23	-	-	0.36	-	0.05	-	0.07
	Groveland- Sunshine Parkway WWTF FLA010656	0.34	0.70	0.36	-	0.65	-	-	-	0.05	-	-	-	-
	Groveland/Sampey Rd. – WWTF FLA010513	0.47	0.47	-	-	0.32	0.04	-	-	0.11	-	-	-	(0.00)
	Lake Groves WWTF FLA010630	0.46	0.46	-	-	0.21	-	-	-	0.15	-	0.08	-	0.02
	Minneola, City of WWTF FLA356344	0.19	0.19	-	-	-	-	-	-	0.19	-	-	-	-
	Pine Island FLA297631	0.23	0.23	-	-	-	0.23	-	-	-	-	-	-	-
	Southlake Utilities FLA010634	0.73	0.73	-	-	-	-	-	-	0.73	-	-	-	-
	SJRWMD Lake (CFWI) County Total	5.10	5.51	0.41	-	3.16	0.50	-	-	1.63	-	0.13	-	1.05

Table A-13c. 2015 Reuse flows and reuse categories by facility, county, and District in the CFWI Planning Area (continued).

County/ District	Facility Name and ID#	2015												
		Total WW Flows	Reuse CFWI	Supple- mental flows	WW Disposal	Residential Irrigation/ Landscape	Golf courses	Agriculture Irrigation	Sprayfields	Recharge/ RIBS	IPR	Industrial	Wetlands	Other Reuse
Orange - SFWMD	OCUD - South WRF FLA107972	36.12	36.12	-	-	12.47	4.31	1.52	-	14.26	-	3.55	-	0.01
	Orlando - Water Conserv I WRF FLA010816	4.36	12.83	0.14	-	10.63	2.17	-	-	0.03	-	-	-	-
	Orlando - Water Conserv II (McLeod Rd) FLA010814	11.57	11.57	0.48	-	2.34	1.24	0.74	-	6.41	-	0.22	-	0.59
	Reedy Creek Improvement District WRF FLA108219	13.44	13.44	-	-	3.09	0.77	-	-	8.54	-	0.59	-	0.45
	SFWMD Orange County Total	65.49	73.96	0.62	-	28.53	8.49	2.26	-	29.24	-	4.39	-	1.05
Orange - SJRWMD	Apopka WRF - Project Arrow FLA010818	5.97	8.03	2.06	-	3.09	0.61	0.13	-	-	-	0.04	-	4.16
	Winter Park Estates WWTF FLA010819	0.34	0.34	-	-	-	0.19	-	-	-	-	0.01	-	0.14
	Fairways Country Club WWTF FLA010823	0.12	0.12	-	-	-	0.12	-	-	-	-	-	-	-
	Gulfstream Harbor WWTF FLA010835	0.03	0.03	-	-	-	-	-	-	0.03	-	-	-	-
	Ocoee, City of – WWTF FLA010815	1.60	3.07	-	-	2.90	0.09	-	-	0.05	-	-	-	0.03
	OCUD - Eastern WRF FL0038849	18.89	19.42	0.53	-	3.13	-	-	-	0.94	-	6.64	8.71	-
	OCUD - Northwest WRF FLA010798	5.78	4.66	-	-	-	-	-	-	1.23	-	0.30	3.09	0.04
	Rock Springs MHP WWTF FLA010871	0.14	0.14	-	-	-	-	-	-	0.14	-	-	-	-
	Wedgefield WWTF FLA010900	0.26	0.26	-	-	-	0.25	0.01	-	-	-	-	-	0.00
	Winter Garden, City of – WWTF FL0020109	3.10	3.10	-	1.50	1.16	0.44	-	-	-	-	-	-	1.50
	SJRWMD Orange County Total	36.23	39.17	2.59	1.50	10.28	1.70	0.14	-	2.39	-	6.99	11.80	5.87

Table A-13c. 2015 Reuse flows and reuse categories by facility, county, and District in the CFWI Planning Area (continued).

County/ District	Facility Name and ID#	2015												
		Total WW Flows	Reuse CFWI	Supple- mental flows	WW Disposal	Residential Irrigation/ Landscape	Golf courses	Agriculture Irrigation	Sprayfields	Recharge/ RIBS	IPR	Industrial	Wetlands	Other Reuse
Osceola - SFWMD	St Cloud - Southside WRF FLA010962	3.32	2.51	-	0.79	2.13	0.37	-	0.02	-	-	0.01	-	-
	TWA - Camelot WRF FLA010983	3.79	14.99	-	-	3.74	2.03	-	0.08	6.83	-	2.39	-	-
	TWA - Cypress West WRF FLA109843	2.69	-	-	-	-	-	-	-	-	-	-	-	-
	TWA - Harmony WRF FLA267872	0.11	0.11	-	-	-	-	-	-	0.11	-	-	-	-
	TWA - Northeast District (Future)													
	TWA - Parkway WWTF FLA010960	0.94	0.94	-	-	0.39	0.24	-	-	0.31	-	-	-	-
	TWA - Sandhill Road WRF FLA010958	3.88	5.61	0.17	-	1.74	1.73	-	-	2.14	-	-	-	-
	TWA - South Bermuda WRF FLA010957	11.29	-	-	-	-	-	-	-	-	-	-	-	-
	SFWMD Osceola County Total	26.02	24.16	0.17	0.79	8.00	4.37	-	0.10	9.39	-	2.40	-	-
Polk - SFWMD	Avon Park Correctional Institute FL0040029	0.29	-	-	0.29	-	-	-	-	-	-	-	-	-
	Gold Coast Utility WWTF (Lakeshore Club) FLA110434	0.07	-	-	-	-	-	-	0.07	-	-	-	-	-
	TWA - Lake Marion WRF FLA010979	1.05	-	-	-	-	-	-	-	-	-	-	-	-
	TWA - Walnut Drive WRF FL0036862	0.86	5.07	0.48	-	1.76	0.54	-	-	2.77	-	-	-	-
	SFWMD Polk County Total	2.27	5.07	0.48	0.29	1.76	0.54	-	0.07	2.77	-	-	-	-

Table A-13c. 2015 Reuse flows and reuse categories by facility, county, and District in the CFWI Planning Area (**continued**).

County/ District	Facility Name and ID#	2015												
		Total WW Flows	Reuse CFWI	Supple- mental flows	WW Disposal	Residential Irrigation/ Landscape	Golf courses	Agriculture Irrigation	Sprayfields	Recharge/ RIBS	IPR	Industrial	Wetlands	Other Reuse
Polk – SWFWMD	Auburndale Regional WWTF FLA016559	1.31	0.39	-	-	0.15	-	-	0.92	-	-	0.08	-	0.16
	Auburndale, City of - Allred WWTF FL0021466	1.17	0.42	-	-	-	-	-	0.75	0.03	-	0.39	-	-
	Bartow City of WRF FLA012976	2.83	2.83	-	-	-	-	-	-	-	-	2.83	-	-
	Carefree RV Country Club FLA013093	0.03	0.03	-	-	-	0.03	-	-	-	-	-	-	-
	Cypress Lakes WWTF FLA013123	0.10	0.10	-	-	-	0.10	-	-	-	-	-	-	-
	Davenport, City of – WWTF FLA377392	0.06	0.06	-	-	-	-	-	-	0.06	-	-	-	-
	Polk Correctional Institution FLA013360	0.23	0.23	-	-	-	-	-	-	0.23	-	-	-	-
	Dundee, Town of WWTF FLA180416	0.12	0.12	-	-	-	-	-	-	0.12	-	-	-	-
	Fort Meade, City of FLA016529	0.49	0.49	-	-	-	-	-	-	-	-	0.49	-	-
	Frostproof City of WWTF FLA012983	0.12	0.12	-	-	-	-	-	-	0.12	-	-	-	-
	Haines City, City of FLA012977	1.48	1.19	-	-	0.15	0.44	0.35	0.29	0.25	-	-	-	-

Table A-13c. 2015 Reuse flows and reuse categories by facility, county, and District in the CFWI Planning Area (continued).

County/ District	Facility Name and ID#	2015												
		Total WW Flows	Reuse CFWI	Supple- mental flows	WW Disposal	Residential Irrigation/ Landscape	Golf courses	Agriculture Irrigation	Sprayfields	Recharge/ RIBS	IPR	Industrial	Wetlands	Other Reuse
Polk – SWFWMD (continued)	Lake Alfred, City of FLA012975	0.49	0.11	-	-	-	-	-	0.38	0.11	-	-	-	
	Lake Wales, City of FLA129844	1.15	1.15	-	-	0.17	0.26	0.04	-	0.68	-	-	-	
	Lakeland, City of - Glendale WRF FL0039772	9.06	3.95	-	1.81	-	-	-	-	-	-	3.95	-	
	Lakeland, City of - Northside WWTF FLA012985	3.95	7.25	-	-	-	-	-	-	-	-	7.25	-	
	Streamsong FLA760838	0.02	-	-	0.02	-	-	-	-	-	-	-	-	
	Mulberry, City of FL0020338	0.34	-	-	0.34	-	-	-	-	-	-	-	-	
	Outdoor Resorts at Orlando WWTF FLA011047	0.11	0.11	-	-	-	-	-	-	0.11	-	-	-	
	Cardinal Hill (Polk City) WWTF FLA489093	0.12	0.03	-	-	-	-	-	0.09	0.03	-	-	-	
	Polk County - Northeast Regional WWTF FLA012967	3.01	2.63	-	-	1.37	0.23	-	-	1.02	-	-	-	
	Polk County - Northwest Regional WWTF FLA178667	0.92	0.53	(0.29)	-	0.44	0.08	-	0.10	0.01	-	-	-	

Table A-13c. 2015 Reuse flows and reuse categories by facility, county, and District in the CFWI Planning Area (continued).

County/ District	Facility Name and ID#	2015												
		Total WW Flows	Reuse CFWI	Supple- mental flows	WW Disposal	Residential Irrigation/ Landscape	Golf courses	Agriculture Irrigation	Sprayfields	Recharge/ RIBS	IPR	Industrial	Wetlands	Other Reuse
Polk – SWFWMD (continued)	Polk County - Southwest Regional WWTF FLA012954	1.59	0.64	-	0.95	0.58	0.07	-	-	-	-	-	-	
	PolkCounty-WaverlyWWTFFLA012968	0.03	0.03	-	-	-	-	-	-	0.03	-	-	-	
	PolkCountySunRayWWTFFLA012949	0.28	0.28	-	-	-	-	-	-	0.28	-	-	-	
	SweetwaterGolf&TennisClubFLA013082	0.05	0.05	-	-	-	0.03	-	-	0.03	-	-	-	
	SwissGolfClubFLA013103	0.06	0.06	-	-	-	-	-	-	0.06	-	-	-	
	SwissVillageMHPFLA013102	0.04	0.04	-	-	-	-	-	-	0.04	-	-	-	
	GrenelefeResortCenterFLA013016	0.10	0.10	-	-	-	-	-	-	0.10	-	-	-	
	Winter Haven, City of-WWTP#2 FLA129747	1.10	0.98	-	-	0.24	0.15	0.50	0.12	-	-	0.10	-	
	Winter Haven, City of-WWTP#3 FL0036048	3.99	-	-	3.99	-	-	-	-	-	-	-	-	
SWFWMD Polk County Total	34.35	23.90	(0.29)	7.11	3.10	1.38	0.89	2.66	3.29	-	15.09	-	0.16	

Table A-13c. 2015 Reuse flows and reuse categories by facility, county, and District in the CFWI Planning Area (continued).

County/ District	Facility Name and ID#	2015												
		Total WW Flows	Reuse CFWI	Supple- mental flows	WW Disposal	Residential Irrigation/ Landscape	Golf courses	Agriculture Irrigation	Sprayfields	Recharge/ RIBS	IPR	Industrial	Wetlands	Other Reuse
Seminole-SJRWMD	Altamonte Springs Regional WRF ¹ FL0033251	6.70	7.05	0.35	0.83	5.61	-	-	-	-	-	0.20	-	1.24
	Casselberry, City of-WWTF FLA011066	0.84	0.77	-	-	0.56	0.16	-	-	0.05	-	-	-	-
	FGUA/Chuluota WWTF FLA011076	0.14	0.07	-	-	0.07	-	-	0.07	-	-	-	-	-
	Longwood/Shadow Hills WWTF ² FLA011105	0.38	0.38	-	-	-	-	-	-	0.38	-	-	-	-
	Orlando-Iron Bridge Regional WRF FL0037966	22.03	15.14	-	6.89	-	-	-	-	-	-	3.77	11.37	-
	Oviedo WRF FLA011074	1.77	1.77	-	-	1.21	0.15	-	-	0.41	-	-	-	-
	Palm Valley MHP WWTF FLA011085	0.09	0.09	-	-	0.06	-	-	-	-	-	-	-	0.03
	Sanford-South WRF #2 FLA181714	1.42	-	-	-	-	-	-	-	-	-	-	-	-
	Sanford, City of- North WWTF FL0020141	5.13	6.59	-	0.44	0.70	0.47	1.75	-	-	-	0.52	-	3.15
	Seminole County- Greenwood Lakes WRF FLA011086	2.13	2.13	-	-	-	-	-	-	0.62	-	-	-	1.51
	Seminole County- Yankee Lake WWTF FLA042625	2.41	2.60	0.19	-	1.49	0.18	-	-	0.11	-	-	-	0.82
	Wekiva Hunt Club WWTP FL0036251	2.04	1.19	-	0.25	0.77	0.25	-	-	0.17	-	-	-	-
	Winter Springs, City of-East WWTF FLA011068	1.10	1.10	0.02	-	0.56	0.23	0.10	-	0.21	-	-	-	-
Winter Springs, City of-West WWTF FLA011067	1.22	1.22	-	-	0.87	-	0.11	-	0.24	-	-	-	-	
SJRWMD Seminole County Total	47.40	40.10	0.56	8.41	11.90	1.44	1.96	0.07	2.19	-	4.49	11.37	6.75	

Table A-13d. Summary of 2015 Reuse flows and reuse categories by District in the CFWI Planning Area.

District Totals	2015												
	Total WW Flows	Reuse CFWI	Supplemental flows	WW Disposal	Residential Irrigation/Landscape	Golf courses	Agriculture Irrigation	Sprayfields	Recharge/RIBS	IPR	Industrial	Wetlands	Other Reuse
SFWMD Totals	95.32	103.19	1.27	1.08	38.29	13.40	2.26	0.17	41.40	-	6.79	-	1.05
SJRWMD Totals	88.73	84.78	3.56	9.91	25.34	3.64	2.10	0.07	6.21	-	11.61	23.17	12.71
SWFWMD Totals	34.35	23.90	(0.29)	7.11	3.10	1.38	0.89	2.66	3.29	-	15.09	-	0.16
CFWI Planning Area Totals	218.40	211.87	4.54	18.10	66.73	18.42	5.25	2.90	50.90	-	33.49	23.17	13.92

Table A-13e. 2040 Reuse flow projections and reuse categories by facility, county, and District in the CFWI Planning Area.

County/ District	Facility Name and ID#	2040 Projected Wastewater Summary				2040 Projected Reclaimed Water End Uses									
		2015 - 2040 Flow Increase	WW Flows	Beneficial Reuse CFWI	Supple- mental flows	Surface Water Disposal	Residential Irrigation/ Landscape	Golf Courses	Agriculture Irrigation	Sprayfields	Recharge/ RIBS	IPR	Industrial	Wetlands	Other Reuse
Lake (CFWI) SJRWMD	Clerbrook RV & Golf Resort – FLA010538	0.00	0.04	0.04	-	-	-	-	-	-	0.04	-	-	-	-
	Clermont, City of - East – WWTF - FLA010515	2.58	5.22	3.91	-	1.31	2.30	0.20	-	-	1.31	-	-	-	0.10
	Groveland-Sunshine Parkway WWTF FLA010656	0.37	0.70	0.70	-	-	0.70	-	-	-	-	-	-	-	-
	Groveland/Sampey Rd. – WWTF FLA010513	0.37	0.84	0.84	-	-	0.84	-	-	-	-	-	-	-	-
	Lake Groves WWTF FLA010630	-	0.46	0.46	-	-	0.21	-	-	-	0.15	-	0.08	-	0.02
	Minneola, City of WWTF FLA356344	0.66	0.85	0.85	-	-	-	-	-	-	0.85	-	-	-	-
	Pine Island FLA297631	-	0.23	0.23	-	-	-	0.23	-	-	-	-	-	-	-
	Southlake Utilities FLA010634	0.45	1.18	1.18	-	-	-	-	-	-	1.18	-	-	-	-
	SJRWMD Lake (CFWI) County Total	4.42	9.51	8.20	-	1.31	4.05	0.43	-	-	3.53	--	0.08	-	0.12
Orange - SFWMD	OCUD WRFs – South (FLA107972), Eastern (FL0038849), Northwest (FLA010798)	49.05	108.58	109.62	1.05	-	55.82	6.52	1.02	-	15.75	-	17.53	12.94	0.04
	Orlando - Water Conserv I WRF FLA010816	3.94	8.30	5.40	0.88	-	-	-	-	-	0.40	-	-	-	-
	Orlando - Water Conserv II (McLeod Rd) FLA010814	1.05	15.42	14.24	-	-	5.41	1.00	-	-	7.83	-	-	-	-
	Reedy Creek Improvement District WRF FLA108219	9.82	23.26	23.26	-	-	10.57	-	-	-	12.69	-	-	-	-
	SFWMD Orange County Total	63.85	155.55	152.52	1.93	-	74.22	10.10	1.02	-	36.67	-	17.53	12.94	0.04

Table A-13e. 2040 Reuse flow projections and reuse categories by facility, county, and District in the CFWI Planning Area (continued).

County/ District	Facility Name and ID#	2040 Projected Wastewater Summary				2040 Projected Reclaimed Water End Uses									
		2015 - 2040 Flow Increase	WW Flows	Beneficial Reuse CFWI	Supple- mental flows	Surface Water Disposal	Residential Irrigation/ Landscape	Golf Courses	Agriculture Irrigation	Sprayfields	Recharge/ RIBS	IPR	Industrial	Wetlands	Other Reuse
Orange - SJRWMD	Apopka WRF - Project Arrow FLA010818	4.44	10.41	14.41	-	-	13.63	0.61	0.13	-	-	-	0.04	-	-
	Winter Park Estates WWTF FLA010819	-	0.34	0.34	-	-	-	0.19	-	-	-	0.01	-	0.14	
	Fairways Country Club WWTF FLA010823	-	0.12	0.12	-	-	0.11	-	-	-	0.02	-	-	-	
	Gulfstream Harbor WWTF FLA010835	-	0.03	0.03	-	-	-	-	-	-	0.03	-	-	-	
	Ocoee, City of - WWTF FLA010815	1.08	2.68	2.68	-	-	2.09	0.45	-	-	0.14	-	-	-	
	Rock Springs MHP WWTF FLA010871	0.01	0.15	0.15	-	-	-	-	-	-	0.15	-	-	-	
	Wedgfield WWTF FLA010900	0.05	0.31	0.30	-	-	-	0.30	-	0.01	-	-	-	-	
	Winter Garden, City of - WWTF FL0020109	2.00	5.10	4.28	-	2.00	2.34	0.44	-	-	-	-	-	-	1.50
	SJRWMD Orange County Total	7.58	19.14	22.30	-	2.00	18.16	1.99	0.13	0.01	0.33	-	0.05	-	1.64

Table A-13e. 2040 Reuse flow projections and reuse categories by facility, county, and District in the CFWI Planning Area (continued).

County/ District	Facility Name and ID#	2040 Projected Wastewater Summary				2040 Projected Reclaimed Water End Uses									
		2015 - 2040 Flow Increase	WW Flows	Beneficial Reuse CFWI	Supple- mental flows	Surface Water Disposal	Residential Irrigation/ Landscape	Golf Courses	Agriculture Irrigation	Sprayfields	Recharge/ RIBS	IPR	Industrial	Wetlands	Other Reuse
Osceola - SFWMD	St Cloud - Southside WRFFLA010962	6.85	10.17	10.15	-	-	9.77	0.37	-	0.02	-	-	0.01	-	-
	TWA - Camelot WRF FLA010983		-	-	-	-	-	-	-	-	-	-	-	-	-
	TWA - Cypress West WRF FLA109843		-	-	-	-	-	-	-	-	-	-	-	-	-
	TWA - Harmony WRF FLA267872		-	-	-	-	-	-	-	-	-	-	-	-	-
	TWA - Northeast District (Future)		-	-	-	-	-	-	-	-	-	-	-	-	-
	TWA - Parkway WWTF FLA010960		-	-	-	-	-	-	-	-	-	-	-	-	-
	TWA - Sandhill Road WRF FLA010958		-	-	-	-	-	-	-	-	-	-	-	-	-
	TWA - South Bermuda WRF FLA010957	13.99	38.60	47.10	8.50	-	26.89	13.61	-	-	3.61	-	2.99	-	-
	SFWMD Osceola County Total	19.14	48.77	57.25	8.80	-	36.66	13.98	-	0.02	3.61	-	3.00	-	-
Polk - SFWMD	Avon Park Correctional Institute FL0040029	0.00	0.29	-	-	0.29	-	-	-	-	-	-	-	-	-
	Gold Coast Utility WWTF (Lakeshore Club) FLA110434	-	0.07	-	-	-	-	-	-	0.07	-	-	-	-	-
	TWA - Lake Marion WRF FLA010979		-	-	-	-	-	-	-	-	-	-	-	-	-
	TWA - Walnut Drive WRF FL0036862		-	-	-	-	-	-	-	-	-	-	-	-	-
	SFWMD Polk County Total	0.00	0.36	-	-	0.29	-	-	-	-	0.07	-	-	-	-

Table A-13e. 2040 Reuse flow projections and reuse categories by facility, county, and District in the CFWI Planning Area (continued).

County/ District	Facility Name and ID#	2040 Projected Wastewater Summary				2040 Projected Reclaimed Water End Uses									
		2015 - 2040 Flow Increase	WW Flows	Beneficial Reuse CFWI	Supple- mental flows	Surface Water Disposal	Residential Irrigation/ Landscape	Golf Courses	Agriculture Irrigation	Sprayfields	Recharge/ RIBS	IPR	Industrial	Wetlands	Other Reuse
Polk - SWFWMD	Auburndale Regional WWTF FLA016559	1.03	3.51	3.51	-	-	2.51	-	-	-	0.03	-	0.47	-	0.50
	Auburndale, City of - Allred WWTF FL0021466	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bartow City of WRF FLA012976	0.62	3.45	3.45	-	-	-	-	-	-	-	-	3.45	-	-
	Carefree RV Country Club FLA013093	-	0.03	0.03	-	-	-	0.03	-	-	-	-	-	-	-
	Cypress Lakes WWTF FLA013123	0.01	0.11	0.11	-	-	-	0.11	-	-	-	-	-	-	-
	Davenport, City of - WWTF FLA377392	0.72	0.78	0.78	-	-	-	-	-	-	0.78	-	-	-	-
	Polk Correctional Institution FLA013360	-	0.23	0.23	-	-	-	-	-	-	0.23	-	-	-	-
	Dundee, Town of WWTF FLA180416	0.28	0.40	0.40	-	-	-	-	-	-	0.40	-	-	-	-
	Fort Meade, City of FLA016529	0.13	0.62	-	-	-	-	-	-	0.62	-	-	-	-	-
	Frostproof City of WWTF FLA012983	0.09	0.21	0.21	-	-	-	-	-	-	0.21	-	-	-	-
	Haines City, City of FLA012977	1.27	2.75	2.75	-	-	0.80	0.80	-	-	0.88	-	0.27	-	-
	Lake Alfred, City of FLA012975	0.34	0.83	0.11	-	-	-	-	-	0.72	0.11	-	-	-	-
	Lake Wales, City of FLA129844	0.81	1.96	1.96	-	-	0.17	0.26	0.04	-	1.49	-	-	-	-
	Lakeland, City of - Glendale WRF FL0039772	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lakeland, City of - Northside WWTF FLA012985	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Table A-13e. 2040 Reuse flow projections and reuse categories by facility, county, and District in the CFWI Planning Area (continued).

County/ District	Facility Name and ID#	2040 Projected Wastewater Summary				2040 Projected Reclaimed Water End Uses									
		2015 - 2040 Flow Increase	WW Flows	Beneficial Reuse CFWI	Supple- mental flows	Surface Water Disposal	Residential Irrigation/ Landscape	Golf Courses	Agriculture Irrigation	Sprayfields	Recharge/ RIBS	IPR	Industri- al	Wetlands	Other Reuse
Polk – SWFWMD (continued)	Streamsong FLA760838	-	0.02	0.02	-	-	-	0.02	-	-	-	-	-	-	-
	Mulberry, City of FL0020338	0.10	0.44	0.44	-	-	-	-	-	-	-	-	0.44	-	-
	Outdoor Resorts at Orlando WWTF FLA011047	-	0.11	0.11	-	-	-	-	-	-	0.11	-	-	-	-
	Cardinal Hill (Polk City) WWTF FLA489093	0.00	0.12	0.03	-	-	-	-	-	0.10	0.03	-	-	-	-
	Polk County - Northeast Regional WWTF FLA012967	1.55	4.56	4.56	-	-	4.16	0.40	-	-	-	-	-	-	-
	Polk County - Northwest Regional WWTF FLA178667	0.93	1.85	1.85	-	-	0.44	0.08	-	-	1.33	-	-	-	-
	Polk County- Waverly WWTF FLA012968	1.11	2.70	2.70	-	-	0.58	0.07	-	-	-	-	2.06	-	-
	Polk County Sun Ray WWTF FLA012949	0.02	0.05	0.05	-	-	-	-	-	-	0.05	-	-	-	-
	Sweetwater Golf &Tennis Club FLA013082	-	0.05	0.05	-	-	-	0.05	-	-	-	-	-	-	-
	Swiss Golf Club FLA013103	0.00	0.06	0.06	-	-	-	-	-	-	0.06	-	-	-	-
	Swiss Village MHPFLA013102	0.01	0.05	0.05	-	-	-	-	-	-	0.05	-	-	-	-
	Grenelefe Resort Center FLA013016	0.00	0.10	0.10	-	-	-	-	-	-	0.10	-	-	-	-
	Winter Haven, City of-WWTP #2 FLA129747	1.67	6.76	6.76	-	-	2.32	0.91	0.62	-	0.45	1.0 0	0.26	1.20	-
	Winter Haven, City of-WWTP #3 FL0036048	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SWFWMD Polk County Total	12.39	46.74	45.30	-	-	10.98	2.73	0.66	1.44	6.21	1.00	22.03	1.20	0.50

Table A-13e. 2040 Reuse flow projections and reuse categories by facility, county, and District in the CFWI Planning Area (continued).

County/ District	Facility Name and ID#	2040 Projected Wastewater Summary				2040 Projected Reclaimed Water End Uses									
		2015 - 2040 Flow Increase	WW Flows	Beneficial Reuse CFWI	Supple- mental flows	Surface Water Disposal	Residential Irrigation/ Landscape	Golf Courses	Agriculture Irrigation	Sprayfields	Recharge/ RIBS	IPR	Industrial	Wetlands	Other Reuse
Seminole - SJRWMD	Altamonte Springs Regional WRF ¹ FL0033251	0.65	7.35	6.31	1.85	-	5.61	-	-	-	-	0.20	-	0.50	
	Casselberry, City of-WWTF FLA011066	0.11	0.95	1.31	0.36	-	0.74	0.16	-	-	0.05	-	-	0.36	
	FGUA/Chuluota WWTF FLA011076	0.11	0.25	0.07	-	-	0.07	-	-	0.18	-	-	-	-	
	Longwood/Shado w Hills WWTF ² FLA011105	(0.38)	-	-	-	-	-	-	-	-	-	-	-	-	
	Orlando – Iron Bridge Regional WRF - FL0037966	6.62	28.65	24.43	-	-	10.79	-	-	-	-	-	13.64	-	
	Oviedo WRF FLA011074	0.24	2.01	2.01	-	-	1.21	0.15	-	-	0.65	-	-	-	
	Palm Valley MHP WWTF FLA011085	-	0.09	0.09	-	-	0.09	-	-	-	-	-	-	-	
	Sanford-South WRF #2 FLA181714	1.88	3.30	-	-	-	-	-	-	-	-	-	-	-	
	Sanford, City of- North WWTF FL0020141	0.61	5.74	11.04	2.00	-	8.04	2.00	1.00	-	-	-	-	-	
	Seminole County- Greenwood Lakes WRF FLA011086	(0.21)	1.92	1.92	-	-	-	-	-	-	0.41	-	-	1.51	
	Seminole County- Yankee Lake WWTF FLA042625	1.41	3.82	11.82	-	-	10.71	0.18	-	-	0.11	-	-	0.82	

Table A-13e. 2040 Reuse flow projections and reuse categories by facility, county, and District in the CFWI Planning Area (continued).

County/ District	Facility Name and ID#	2040 Projected Wastewater Summary				2040 Projected Reclaimed Water End Uses									
		2015 - 2040 Flow Increase	WW Flows	Beneficial Reuse CFWI	Supple- mental flows	Surface Water Disposal	Residential Irrigation/ Landscape	Golf Courses	Agriculture Irrigation	Sprayfields	Recharge/ RIBS	IPR	Industrial	Wetlands	Other Reuse
Seminole – SJRWMD (continued)	Wekiva Hunt Club WWTP FL0036251	0.67	2.71	1.19	-	0.42	0.77	0.25	-	-	0.17	-	-	-	-
	Winter Springs, City of-East WWTF FLA011068	0.08	1.18	1.10	0.02	-	0.64	0.28	-	0.10	0.18	-	-	-	-
	Winter Springs, City of-West WWTF FLA011067	(0.12)	1.10	0.99	-	-	0.74	-	-	0.11	0.25	-	-	-	-
	SJRWMD Seminole County Total	11.68	59.08	62.27	4.23	0.42	39.41	3.02	1.00	0.39	1.81	-	0.20	13.64	3.19

Table A-13f. Summary of 2040 Reuse flow projections and reuse categories by District in the CFWI Planning Area.

District Totals	2040 Projected Wastewater Summary				2040 Projected Reclaimed Water End Uses									
	Total 2015-2040 Flow Increase	WW Flow Projections	Beneficial Reuse CFWI	Supplemental flows	Surface Water Disposal	Residential Irrigation/Landscape	Golf Courses	Agriculture Irrigation	Sprayfields	Recharge / RIBS	IPR	Industrial	Wetlands	Other Reuse
SFWMD Totals	83.00	204.69	209.78	10.43	0.29	110.88	24.08	1.02	0.09	40.28	-	20.53	12.94	0.04
SJRWMD Totals	23.67	87.73	92.78	4.23	3.73	61.62	5.44	1.13	0.40	5.67	-	0.33	13.64	4.95
SWFWMD Totals	12.39	46.74	45.30	-	-	10.98	2.73	0.66	1.44	6.21	1.00	22.03	1.20	0.50
CFWI Planning Area Totals	119.06	339.16	347.86	14.66	4.03	183.48	32.25	2.81	1.93	52.16	1.00	42.89	27.78	5.49

Table A-14. Comments received during development of the water demand and population projections for the 2020 Central Florida Water Initiative Regional Water Supply Plan and the actions taken by the Regional Water Supply Plan Team.

Date	From / Affiliation	Category	Comment	Reply / Action Taken
04/19/16	Chris Russell, OUC	PG	Stanton Power will need no additional groundwater into the future.	Demands held constant to 2015 water use.
11/03/17	Ilia Balcom, Duke Energy	PG	The facilities of Intercession, Hines, and Tiger Bay will not have any need for future GW demand; met via other sources. Osprey Energy Center in Auburndale needs to be added to the list.	Future water demands were updated to reflect no new additional GW. Osprey Energy Center added to the master tables.
01/11/18	Brian Megic, Liquid Solutions Group, for STOPR+2	PG	Requested public supply service area boundaries, waste water service area boundaries, BEBR estimates and projections and report, draft water demand projections, methodology for DSS and shifting of DSS to PS, methodology for tourist and seasonal population, comparisons between 2015 CFWI RWSP projections and 2020 CFWI projections, discussion of all other methods.	Information was provided if available and invited all STOPR+2 members to the 01/31/18 CFWI RWSP Team meeting to discuss methods and data moving forward. It was noted that this is a working group and all methods will be documented and included in the appendices of the RWSP.
02/08/18	Sarah Whitaker, SMW GeoSciences, Inc., for the City of Mascotte	PS	Historic population should be updated to remove DSS not currently served. The City has it in their future plans to convert these DSS to PS.	Historic population and resulting 5-year average gross gpcd updated. Demand projections updated accordingly.
03/07/18	Keith Browning, OUC	PS	Provided service area updates for areas of DSS population exclusion.	Service are boundary updated, verifying no overlaps. Associated projections updated with service area boundary change, historic population and resulting 5-year average gross gpcd update.
03/15/18	Jason Herrick, RCID	PS	RCID is unique in that it serves no permanent population and does not have a historic 5-year average gross gpcd to project demand with. SFWMD, Tom Colios, solicited RCID for their future water demand projections and associated methodologies.	Demand projections updated with RCID deliverable.

Table A-14. Comments received during development of the water demand and population projections for the 2020 Central Florida Water Initiative Regional Water Supply Plan and the actions taken by the Regional Water Supply Plan Team (continued).

Date	From / Affiliation	Category	Comment	Reply / Action Taken
03/19/18	Rob Denis, LSG, for Orange County Utilities	PS	Updated service area boundaries provided for Orange County Utilities.	Service area boundary updated, verifying no overlaps. Associated projections updated with service area boundary change, historic population and resulting 5-year average gross gpcd update.
03/20/18	Districts	PS / LR	District staff reviewed entire list of permits in the ECCTX model. There are many permits in the model that do not correspond with planning categories.	A cross walk was created in preparation of distributing water demand projections to the permit and station/well level.
03/20/18	Kevin Wills, SWFWMD	LR	There is no anticipated golf course growth in the SWFWMD.	LR demands changed for SWFWMD to reflect no increases associated with golf courses.
03/30/18	Jason Mickel, SWFWMD	PS	Provided a list of PS permits and updates to imports / exports to properly capture demands from the withdrawal areas.	Changes requested were made and tables / projections updated.
04/06/18	Bryan Gongre, Utilities Inc. of Florida	PS	Email sent in response for demand review, 2020 projection is less than 2015 water use. Response indicated system is built out and water use is anticipated to fluctuate. Demand projections are acceptable for this planning effort.	No changes made.
04/06/18	Ilia Balcom, Duke Energy	PG	Duke Hines Energy Facility – use 2014 water usage. Duke Energy Osprey – change name to Duke Energy Florida-Osprey Energy Center / remove Calpine Construction Finance; also use 2011-2015 average for future projections.	Changes requested were made and tables / projections updated.
04/25/18	Terry McCue, OUC	PS	2020 water demand projection is less than current (2018) water use.	See 05/21/18 comments for OUC below.

Table A-14. Comments received during development of the water demand and population projections for the 2020 Central Florida Water Initiative Regional Water Supply Plan and the actions taken by the Regional Water Supply Plan Team (continued).

Date	From / Affiliation	Category	Comment	Reply / Action Taken
04/28/18	Chris Rader, City of Altamonte Springs	PS	Service area on file is incorrect. Updated water use for 2011 provided. Demand projections should be increased and deviate from 5-year average gross gpcd to only 2015 year gross per capita.	Service area boundary, 2011 water use, and resulting historic population updated after resolving overlaps; resulting in update of demand projections. Standard 5-year average gross gpcd method was not changed.
04/30/18	Eric Olsen, HGS, for Florida Municipal Power Agency	PG	Historic megawatt ratings are incorrect at the Cane Island facility.	Updated historic megawatts provided and Historical data updated in master tables; resulting in update of demand projections.
05/14/18	Rob Denis, LSG, for Orange County Utilities	PS	Provided detail analysis of billed residential homes within the service area. Historic population should be updated to remove DSS not currently served. OUC has it in their future plans to convert 1% per year of these DSS to PS.	Historic population and resulting 5-year average gross gpcd updated. Future DSS additions added. Demand projections updated accordingly.
05/21/18 and 05/29/19	Chris Russell and Terry McCue, OUC	PS	After changes to service areas provided by Keith Browning on 03/07/18, population aggregation from BEBR still appear to be too high (40,000).	After investigation, it was determined that the BEBR method for this service area was allocating too much population to OUC for multi-family residents. This resulted in a lower 5-year average gross gpcd, impacting the future demand projections. Multi-family population updated using a census pph, resulting in the 5-year average gross gpcd update. Population and demand projections updated accordingly.
05/30/18	James Hollingshead, SJRWMD	PS	Winter Springs pumpage appears to include reclaimed water flows from the connection points.	Historical data updated in master tables; resulting in update of demand projections.

Table A-14. Comments received during development of the water demand and population projections for the 2020 Central Florida Water Initiative Regional Water Supply Plan and the actions taken by the Regional Water Supply Plan Team (continued).

Date	From / Affiliation	Category	Comment	Reply / Action Taken
05/30/18	Mark Elsner, SFWMD	PS	Email sent in response for demand review, 2020 projection is less than 2015 water use. Response indicated system is built out and water use is anticipated to fluctuate. Demand projections are acceptable for this planning effort.	No changes made.
06/01/18	Al Aikens, Jacobs, for TOHO	PS	Provided service area updates for areas of DSS population exclusion. Requested spatial distribution of population to be changed.	Spatial location of projected population will not be changed, as that was the BEBR deliverable. However, during the distribution of demands to wells, it will be taken into consideration where the future withdrawals are allocated. Service area boundary and resulting historic population updated; resulting in update of demand projections.
06/01/18	Tom Colios, SFWMD	PG	Cane Island facility has updated pumpage data for 2011-2015 and new permit ID (49-02467-W).	Historical data updated in master tables; updated demand projections.
06/08/18	Rob Heaviside, SCES	PS	Population and water demand projections for SCES are in agreement, however development of future SW is too high; reduce SW and increase GW.	Updated future GW/SW split received from SCES and master tables updated.
06/09/18	Robert Beltran, Hydro Solutions, for PCU	PS	Historic water use for 6505, year 2014 is incorrect; update provided. PCU would like a deviation to use a ten-year average gross gpcd for their demand projections.	Historic water use for 6505 updated; resulting in an update of the demand projections. SWFWMD, Kevin Wills, did an analysis and found that the use of a 5-year average gross gpcd was sufficient and appropriate, as it ties in with their WUP program requirements and that it reflects future trends more adequately. Standard 5-year average gross gpcd method was not changed.

Table A-14. Comments received during development of the water demand and population projections for the 2020 Central Florida Water Initiative Regional Water Supply Plan and the actions taken by the Regional Water Supply Plan Team (continued).

Date	From / Affiliation	Category	Comment	Reply / Action Taken
06/15/18	Kevin Wills, SWFWMD	PS / CII / PG	Permit 143 should be changed from PS to LR. Updated projections provided for Mosaic permits, per CUP planned operations, and wellfield schedule. Larsen Memorial Power Plant was omitted from projections, WUP 295.	Data updated as requested in master tables; resulting in update of demand projections.
07/06/18	Al Aikens, Jacobs, for the City of Cocoa	PS	Population growth is in line with the City's, however spatial location should be changed. The City's demand projections are higher due to contractual obligations with Patrick Air Force Base, Kennedy Space Center, Cape Canaveral Air Force Station, and Crash Boat Station. These contracts should be taken into consideration as they are not indicative in the 5-year average gross gpcd.	Spatial location of projected population will not be changed, as that was the BEBR deliverable. However, during the distribution of demands to wells, it will be taken into consideration where the future withdrawals are allocated. Copies of contracts were obtained and 3.6 mgd was added to the demand projections beginning in 2025.
07/31/18	Chris Rader, City of Altamonte Springs	PS	Three permits previously under SCES have been transferred to Altamonte Springs. These permits (3766, 3769, and 50281) should be updated to reflect Altamonte Springs.	Utility / ownership updated in the demand projections tables.
08/18/15	Bryan Gongre, Utilities Inc. of Florida	PS	Lake Harney is not a UIF facility. 8353, Park Ridge, should be listed as a UIF facility and not Aqua Utilities.	Changes to ownership / utility updated.
08/15/18	Daniel Rutland, Royal Consulting Services, Inc., for Deseret Ranches	AG	Updated SW/GW splits for the North Ranch Sector Plan Area, updated 2015 water use data, and crop data.	Projections and splits updated as identified, per F.S. requirements for approved sector plans.
08/21/18	Daniel Rutland, Royal Consulting Services, Inc., for Deseret Ranches	PS	Provided updated service areas for North East District (Sunbridge) and ECFS (including North Ranch Sector Plan) development areas. Requested use of lower per capita rate than TOHO, to mirror master plan (216 to 139 gpcd). Requested tabular change in population to shift from ECFS to North East District Area, North Ranch Sector area population growth is not anticipated until after 2040.	All changes made as requested.

Table A-14. Comments received during development of the water demand and population projections for the 2020 Central Florida Water Initiative Regional Water Supply Plan and the actions taken by the Regional Water Supply Plan Team (continued).

Date	From / Affiliation	Category	Comment	Reply / Action Taken
08/28/18	Jamie Zivich, Tetra Tech, for Clermont	PS	Service area boundary has a minor discrepancy. Demand projections should be increased and deviate from 5-year average gross gpcd to account for large increase in commercial.	Service area boundary and resulting historic population updated; resulting in update of demand projections. Standard 5-year average gross gpcd method was not changed.
10/02/18	Daniel Rutland, Royal Consulting Services, Inc., for Deseret Ranches	AG / PS	Spatial location and distribution of demands (including source and aquifer designation) provided for both the North Ranch Sector Plan Area (AG) and North East District developments (PS).	Spatial location and distribution of demands updated.
10/29/18	Kevin Wills, SWFWMD	CII	Additional updates to demand projections provided for Mosaic permits, per CUP planned operations, and wellfield schedule.	Data updated as requested in master tables; resulting in update of demand projections.
10/30/18	Terry McCue, OUC	PS	Spatial distribution of demands – one change to station 11695 – changed to abandoned and capped.	Spatial distribution of demands was updated.
10/30/18	Daniel Rutland, Royal Consulting Services, Inc., for Deseret Ranches	AG / PS	Spatial distribution of demands – stations located in centroids should have UFA designation.	Aquifer designation updated.
11/02/18	Jacy Crosby, SJRWMD	LR	Stations 16271, 16286, 15436 are purely backup and had projections to them; they receive reclaimed water.	LR spatial distribution updated to remove GW projections to these stations.
12/13/18	Al Aikens, Jacobs, for TOHO	PS	Spatial distribution of demands for TOHO CUPs– Identified and provided a file for station status updates, as well as spatial distribution of demands. There were some stations that should have been characterized as monitor wells.	Station information was updated, as well as spatial distributions.
12/27/18	Brian Megic, Liquid Solutions Group, for OCU	PS	Spatial distribution of demands – provided updates to station locations, station allocations, station status, water use and water demand spatial projection distributions.	Station information was updated, as well as spatial distributions.

Additional changes to spatial distributions, station aquifer designations, well layers, and DSS distributions were discussed and made during subsequent review of the ECCTX well projection file. See minutes of the HAT meeting on the CFWI website for additional details.

B

Water Conservation

INTRODUCTION

This Appendix contains information on the methodology and data used to estimate water conservation savings for the various water use categories discussed in **Chapter 5**. Additional supporting information is contained in the Conservation Implementation Strategy available at <http://www.cfwewater.com>.

METHODOLOGY

Public Supply - Passive Water Conservation Savings

Passive water conservation projections were developed at the county level using the Alliance for Water Efficiency's Water Conservation Tracking Tool (AWE Tool). Modern plumbing codes, which took effect in 1994 for toilets and showerheads, and appliance standards for dishwashers (2010) and clothes washers (2011) are the major drivers of passive water conservation savings quantified by the AWE Tool. Information used by the tool was gathered from property appraiser databases and the Bureau of Economic and Business Research (BEBR). Estimates originally included both Public Supply (PS) and Domestic Self-Supply (DSS). See the DSS methodology below for a description of how they were separated.

Property appraiser data were used to determine the number of homes (single family and multi-family) that were built pre-1994 as well as those existing in 2015. The parcel use descriptions selected for the analysis were: condominiums, mobile homes, single family, multi-family with 10 units or more, and multi-family less than 10 units.

Population by county for 1990 was obtained from BEBR except for Lake County and the City of Cocoa. The City of Cocoa's and Lake County's 1990 served population was derived from feature classes generated by the St. Johns River Water Management District's (SJRWMD) parcel-level projections model which considered parcels with year build date less than or equal to 1990.

County-level 2015 persons per household was obtained from BEBR except for the City of Cocoa. The 2015 parcel data (dwelling unit count) and 2015 population (**Appendix A, Table A-1a**) was used to create a 2015 persons per household figure for the City of Cocoa.

The AWE Tool calculates passive water conservation savings for toilets, shower heads, clothes washers, and dishwashers. There are two components in the AWE Tool's passive water conservation savings calculation:

- ◆ Natural Replacement Savings: This accounts for water savings that occur as a result of the natural fixture and appliance replacements during the planning horizon. This occurs as older devices reach the end of their service lives or are otherwise replaced by newer, more efficient models. For example, the AWE Tool assumes an annual replacement rate of 4 percent for toilets (25-year life), 12 percent for showerheads (8-year life), 7.1 percent for clothes washers (14-year life), and 6.7 percent for dish washers (15-year life).
- ◆ Water Savings Adjustment Factor: Newer homes built over the planning horizon are more efficient in their indoor water use than existing older homes. When newer homes are combined with existing homes, the ratio of high efficiency to low efficiency fixtures and appliances will increase as compared to the ratio in the 2015 baseline.

To calculate passive water conservation savings for the CFWI Planning Area using available data from utilities, data inputs in the AWE Tool were adjusted as follows:

- ◆ The number of available lower efficiency toilet and showerhead stock was reduced from the full property appraiser database value to account for the reported number of toilets and showerheads replaced by utility retrofit programs. Since most of the toilet replacements occurred post-2007 (the midpoint year between 1994 and 2019) the number of retrofitted toilets were subtracted from the theoretical available housing stock that existed in 2015. Conversely, most showerhead replacement programs were reported as starting before 2007. All showerhead replacements from active utility retrofit programs were deducted from the theoretical housing stock. Specifically, 50 percent of these replacements were reduced from the 1994 theoretical housing stock and the remaining were deducted from the available housing stock in 2015.

The average water savings per device was modified to be consistent with the savings rates identified in the 2015 CFWI RWSP. Specifically, savings per device for toilets were changed from 21 to 46 gallons per day (gpd) (varied based on persons per household and property type) to 20 gpd. Savings per device for showerheads were changed from 5-6 gpd (varied based on persons per household and property type) to 16.4 gpd.

- ◆ Following an analysis of Osceola County property appraiser data and consideration of default data (specific to the Miami-Ft. Lauderdale area) within the AWE Tool, the average number of bathrooms selected for single family and multi-family residences was 1.82 and 1.47, respectively.

The amount of passive water conservation savings estimated by county is presented in **Table B-1**.

Table B-1. Public supply passive water conservation by county in the CFWI Planning Area.

County/City	Percentage of homes built pre-1994	Natural Replacement Savings (mgd)	Water Savings Adjustment Factor (mgd)	Total Passive Water Conservation Projection (mgd)
Cocoa	65%	1.04	0.24	1.28
Lake	21%	0.37	0.14	0.51
Orange	55%	4.90	2.13	7.03
Osceola	38%	1.18	0.59	1.77
Polk	60%	2.61	1.02	3.63
Seminole	67%	2.18	0.66	2.84
CFWI total	N/A	12.28	4.79	17.06

Public Supply - Active Water Conservation

Active water conservation savings projection for this 2020 CFWI RWSP were based on the savings estimate included in the Conservation Implementation Strategy.

The Conservation Implementation Strategy identified a range of water savings that have occurred from 2010-2019. These savings values were derived from three sources: Individually Quantified Conservation Programs, District Cost-Share Projects, and PS Survey water conservation measures. For the PS Survey water conservation measures source, the low range of water conservation savings (3.39 mgd) was derived from implemented water conservation measures reported by 12 PS utilities which account for 67 percent of the 2015 PS water use. The high range is an extrapolation of water conservation savings (5.07 mgd) applied to other PS utilities in the remainder of the CFWI Planning Area (representing 33 percent of the PS water use). **Table B-2** provides a summary of active water conservation savings, and for additional details, refer to the Conservation Implementation Strategy.

Table B-2. Active water conservation savings for public supply (2010-2019) in the CFWI Planning Area.

Data Source	Estimated Savings for 2010-2014 (mgd)	Estimated Savings for 2015-2019 (mgd)	Total Estimated Savings 2010-2019 (mgd)
Individually Quantified Conservation Programs	1.15	1.65	2.80
District Cost-Share Projects	0.26	1.65	1.91
Public Supply Survey	1.65 (reported) 2.47 (extrapolated)	1.74 (reported) 2.60 (extrapolated)	3.39 (reported) 5.07 (extrapolated)
Total	3.06 (reported) 3.88 (extrapolated)	5.03 (reported) 5.89 (extrapolated)	8.10 (reported) 9.78 (extrapolated)

The higher, extrapolated savings rate (9.8 mgd for the 10-year period or 0.98 mgd per year average) from the Conservation Implementation Strategy was used as the starting point of this 2020 CFWI RWSP projection because it is assumed those utilities that did not respond to the survey are still implementing a water conservation plan, as required in their CUP/WUP. For this 2020 CFWI RWSP, two methods were used to create a range of projected active water conservation savings.

- ◆ The first method, the low range, assumed that the calculated water conservation savings rate of 0.98 mgd per year would be maintained through the 20-year planning horizon. This method resulted in the low range of 24.4 mgd for projected savings.
- ◆ The second method, the high range, assumed that the calculated water conservation savings rate (0.98 mgd per year) would increase through the 20-year planning horizon proportional to water demand growth. To avoid duplication with the projected passive water conservation savings, demand reductions due to higher efficiency new construction from the AWE Tool (the water savings adjustment factor) were subtracted from the estimated water conservation savings. This method resulted in the higher projected water conservation savings of 27 mgd.

These calculations are summarized in **Table B-3**.

Table B-3. Public supply projected active water conservation savings in the CFWI Planning Area.

Years	Low Range (mgd)	Average Water Demand Growth	Water Demand Multiplier (mgd)	AWE Adjustment Factor Deductions (mgd)	High Range (mgd)
2015-2020	4.885	7.45%	5.25	(0.93)	4.32
2020-2025	4.885	13.79%	5.92	(1.17)	4.75
2025-2030	4.885	11.19%	6.47	(1.00)	5.47
2030-2035	4.885	9.25%	6.92	(0.88)	6.04
2035-2040	4.885	8.09%	7.32	(0.80)	6.52
Total (2015-2040)	24.43	-	31.88	(4.79)	27.09

The range of total PS projected water conservation savings are summarized in **Table B-4**.

Table B-4. Total public supply projected water conservation savings in the CFWI Planning Area by 2040.

Type	Low Range (mgd)	High Range (mgd)
Passive Water Conservation	17.07	17.07
Active Water Conservation	24.43	27.09
Total	41.50	44.16

Agriculture

Water conservation activities and quantification of water conserved from 2010 to 2017 can be found in the Conservation Implementation Strategy, which used several data sources from the USDA-FPAC, FDACS, SJRWMD, SWFWMD, and SFWMD. From 2010 to 2017, 3.5 mgd (0.43 mgd/year) was estimated to have been conserved due to implementation of various water conservation measures through cost-share and other funding programs by the listed agencies. Only the reported savings from the Mobile Irrigation Labs and funded projects by both the SJRWMD and SWFWMD were used for this calculation. Combined, these water conservation savings account for 1.34 mgd of the 3.5 mgd mentioned above. Using this adjusted annual rate of water conservation savings (0.17 mgd/per year) a potential water conservation savings of 4.19 mgd was calculated through 2040 as shown in **Table B-5**.

Table B-5. Historic and projected water conservation savings for agriculture in the CFWI Planning Area.

Savings Source	2010-2017 Savings (mgd)	Annual Rate (mgd)	2015-2040 Projected Savings (mgd)
MIL	0.22	0.17	4.19
Precision Irrigation	0.06		
Irrigation Conversion	1.06		
Total	1.34	-	4.19

Note: MIL = Mobile Irrigation Laboratory

Domestic Self-Supply

In developing the passive water conservation savings projection discussed above, the AWE Tool provided county-level data, which was then proportioned out to PS and DSS based on the population projections for 2040 (**Table B-6**). For example, Orange County's total population in 2040 (PS plus DSS) is projected to be 1,885,756, and the DSS population is projected to be 112,995 which equates to 6 percent of the total county population. Therefore, 6 percent of the passive water conservation savings that were calculated for Orange County were assigned to the DSS water use category and 94 percent was assigned to the PS water use category. Based on this methodology, the projection for DSS water conservation savings is 0.9 mgd by 2040.

Table B-6. DSS conservation savings by county in the CFWI Planning Area.

County/City	Natural Replacement Savings (mgd)	Water Savings Adjustment Factor (mgd)	Total Passive Water Conservation Projection (mgd)
Cocoa	0.00	0.00	0.00
Lake	0.03	0.01	0.04
Orange	0.31	0.14	0.45
Osceola	0.04	0.02	0.06
Polk	0.20	0.08	0.28
Seminole	0.03	0.01	0.04
Total	0.61	0.25	0.86

Landscape/Recreational Self-Supply

Conservation for landscape and recreation uses is realized due to measures such as retrofit of sprinkler heads to more efficient models, pressure regulation and replacement of traditional irrigation controllers with smart irrigation controllers utilizing soil moisture sensor or weather-based. Research from the University of Florida shows that such retrofit activities can yield savings in the range of 10 to 20 percent (Boyer and Dukes 2015). A conservative estimate of 10 percent savings was used for efficient sprinkler head retrofits. For advanced controllers, a range of savings was reported (Davis and Dukes 2015) and a conservative savings rate of 20 percent was used. Assuming a 2040 projected water demand of 49.27 mgd and a conservative 15 percent volumetric participation rate, the combined water conservation savings from these measures is 2.21 mgd.

Commercial/Industrial/Institutional and Power Generation Self-Supply

The water conservation savings estimates for the Commercial/Industrial/Institutional (CII) and Power Generation (PG) water use categories are combined. During development of the Conservation Implementation Strategy, an annual savings rate was calculated from the water conservation savings observed in both the CII and PG water use categories. The observed savings from 2010-2019 for these two categories was 1.76 mgd, making the rate of water conservation for these water use categories 0.18 mgd/year. This rate was projected through the planning horizon and results in 4.41 mgd of water conservation savings by 2040. This is considered the upper estimate of water conservation savings for these water use categories.

To create a lower estimate of water conservation savings, a 15 percent savings rate was applied to the CII water demand, along with a 15 percent volumetric participation rate. This applied savings rate was derived from Dziegielewski, et al. (2000), who observed audit-driven water efficiency improvements at commercial and institutional facilities ranging from 15 to 50 percent, with 15 to 35 percent being typical. This yields a potential water conservation savings of 1.55 mgd by 2040.

Although the total 2040 water demand for these two water use categories is 80.27 mgd, the lower water conservation savings projection was calculated using the CII water demand projection of 69.00 mgd, since the Dziegielewski study only evaluated the effectiveness of audits at commercial and institutional facilities and did not evaluate the effectiveness of audits on PG processes.

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C

Minimum Flows and Minimum Water Levels and Water Reservations

INTRODUCTION

The Central Florida Water Initiative (CFWI) Minimum Flows and Minimum Water Levels (MFLs) and Water Reservations Team (MFLRT) is one of the subteams of the Water Resource Assessment Technical Team (WRAT) established to conduct fact-finding in support of the guiding principles and collaborative process goals of the CFWI. The MFLRT focuses on the compilation, development, dissemination, and use of information associated with MFLs and reservations.

As part of the development of this 2020 CFWI Regional Water Supply Plan (RWSP), options were developed to evaluate MFLs and MFLs-related environmental criteria. Results derived from this evaluation were used with other information for the assessment of regional groundwater availability.

This Appendix summarizes the assessment for adopted MFLs within or extending into the CFWI Planning Area, including the identification of environmental criteria, methods used, and results of the assessments of MFLs and MFL-related environmental criteria.

Statutory and Regulatory Framework for MFLs and Reservations

Section 373.042, F.S., requires the FDEP or the Districts to establish minimum flows for surface watercourses and minimum levels for groundwater in aquifers and surface waters. MFLs represent the flows and levels at which further withdrawals would be significantly harmful to the water resources or ecology of the area. MFLs are adopted by administrative rule for priority water bodies and calculated using the best information available.

At the time a minimum flow or level is initially adopted, if a water body is below or projected to fall below the initial minimum flow or level, the District shall develop and approve a recovery or prevention strategy with the MFL. The goal of a recovery strategy is to achieve the adopted MFL as soon as practicable. The recovery strategy must include the provision of sufficient water supplies for all existing and projected reasonable-beneficial uses, and may

include the development of additional supplies, construction of new or improved storage facilities, and implementation of conservation or other efficiency measures. The strategy, when appropriate, should include development of additional water supplies, water conservation, and other efficiency measures concurrent with, to the extent practical, and to offset, reductions in permitted withdrawals, consistent with the provisions in Chapter 373, F.S. (**Table C-1**).

Table C-1. Relevant Florida Statutes (F.S.) and Florida Administrative Code (F.A.C.) Rules for MFLs and Reservations.

MFLs	
Section 373.042, F.S.	Requires the FDEP or the state’s water management districts to establish MFLs that represent the limit or level at which further withdrawals would be significantly harmful to the water resources or ecology of the area.
Section 373.0421, F.S.	Addresses establishment and implementation of MFLs, including the need for as necessary recovery and prevention strategies and inclusion of projects identified in a recovery or prevention strategy.
Section 373.0465(2)(b)(3), F.S.	Directs the FDEP, SJRWMD, SFWMD, SWFWMD, Department of Agriculture and Consumer Services to include any needed recovery or prevention strategies in a multidistrict regional water supply plan developed and implemented for the CFWI Planning Area.
Rule 62-40.473, F.A.C.	Provides direction regarding development, expression and implementation of MFLs.
Chapter 40C-8, F.A.C.	Identifies and describes the purpose, definitions, specific criteria, and recovery or prevention strategies associated with establishment and implementation of MFLs by the SJRWMD.
Chapter 40D-8, F.A.C.	Identifies and describes the purpose, definitions, specific criteria, and recovery or prevention strategies associated with establishment, and implementation of MFLs by the SWFWMD.
Chapter 40E-8, F.A.C.	Identifies and describes the purpose, definitions, specific criteria, and recovery or prevention strategies associated with establishment and implementation of MFLs by the SFWMD.
Rule 40C-2.101, F.A.C.	Established MFLs are identified and incorporated into the Districts’ permitting programs and MFLs recovery and prevention strategy rules for SJRWMD.
Chapter 40D-80, F.A.C.	Recovery or prevention strategies for established MFLs are identified and incorporated into the Districts’ permitting programs for SWFWMD.
Rule 40E-2.301, F.A.C.	Established MFLs are identified and incorporated into the Districts’ permitting programs and MFLs recovery and prevention strategy rules for SFWMD.
Reservations	
Section 373.223(4), F.S.; Rule 62-40.410(3), F.A.C.	Authorizes FDEP and the state’s five water management districts to reserve water from use by permit applicants that may be required for the protection of fish and wildlife, or the public health and safety.
Rule 62-40.474; F.A.C.	Provides guidelines concerning reservations, indicates reservations may be used to aid in recovery or prevention strategy for a water resource with an established MFL.

MFLS AND WATER RESERVATIONS

MFLs

Fifty-four MFLs are adopted for waterbodies within or that extend into the CFWI Planning Area (**Figure C-1** and **Table C-2**). The SJRWMD and SWFWMD have adopted MFLs for 39 lakes or wetlands, 5 river or creek segments, and 6 springs or spring groups. The upstream portion of three additional SWFWMD river segments with adopted MFLs, the Upper Hillsborough River, Upper Alafia River and Peace River at Zolfo Springs, extend into the CFWI

Planning Area, although adopted MFL sites associated with these river segments occur outside the CFWI Planning Area. A single aquifer MFL, the Saltwater Intrusion Minimal Aquifer Level (SWIMAL) adopted for the Most Impacted Area (MIA) of the Southern Water Use Caution Area (SWUCA) of SWFWMD, that is also associated with compliance sites located outside the CFWI Planning Area, is influenced by groundwater withdrawals in the CFWI Planning Area. The SWFWMD has not adopted MFLs for any waterbodies within the CFWI Planning Area and does not currently have any scheduled for development.

Twenty-three waterbodies within or extending into the CFWI Planning Area within the SJRWMD and SWFWMD are scheduled for MFLs adoption or reevaluation. In addition, five waterbodies or groups of waterbodies (that include 17 lakes and two river segments) within the SFWMD and SWFWMD are scheduled for adoption of a reservation (**Figure C-1** and **Table C-2**). MFL reevaluations involve the review and, as necessary, revision of previously adopted MFLs and concurrent modification of the associated recovery or prevention strategy.

The status of each waterbody with adopted MFLs is determined each year for the Florida Statewide Annual Report (STAR) and in support of water management district performance measures that are provided to FDEP and used as an element of the Florida Water Plan. Status assessments included in the 2017 STAR (FDEP 2018a), developed in support of 2018 performance metrics (FDEP 2018b), and recent assessments indicate that 41 of the 54 adopted MFLs within or extending into the CFWI Planning Area are currently being met (**Table C-2** and **Figure C-2**). However, MFLs established for 13 of the waterbodies including 9 lakes, one spring, two river segments, and the SWUCA SWIMAL are not being met. All MFLs not currently met are located in the southwest portion of Polk County in SWFWMD; with the exception of the SWUCA SWIMAL, established for the SWUCA MIA, which is located outside of the CFWI Planning Area, and one MFL in southwest Seminole County in SJRWMD (**Figure C-2**). It should be noted that modeled Withdrawals Conditions from the East Central Florida Transient Expanded (ECFTX) model were not used to complete these recent status assessments.

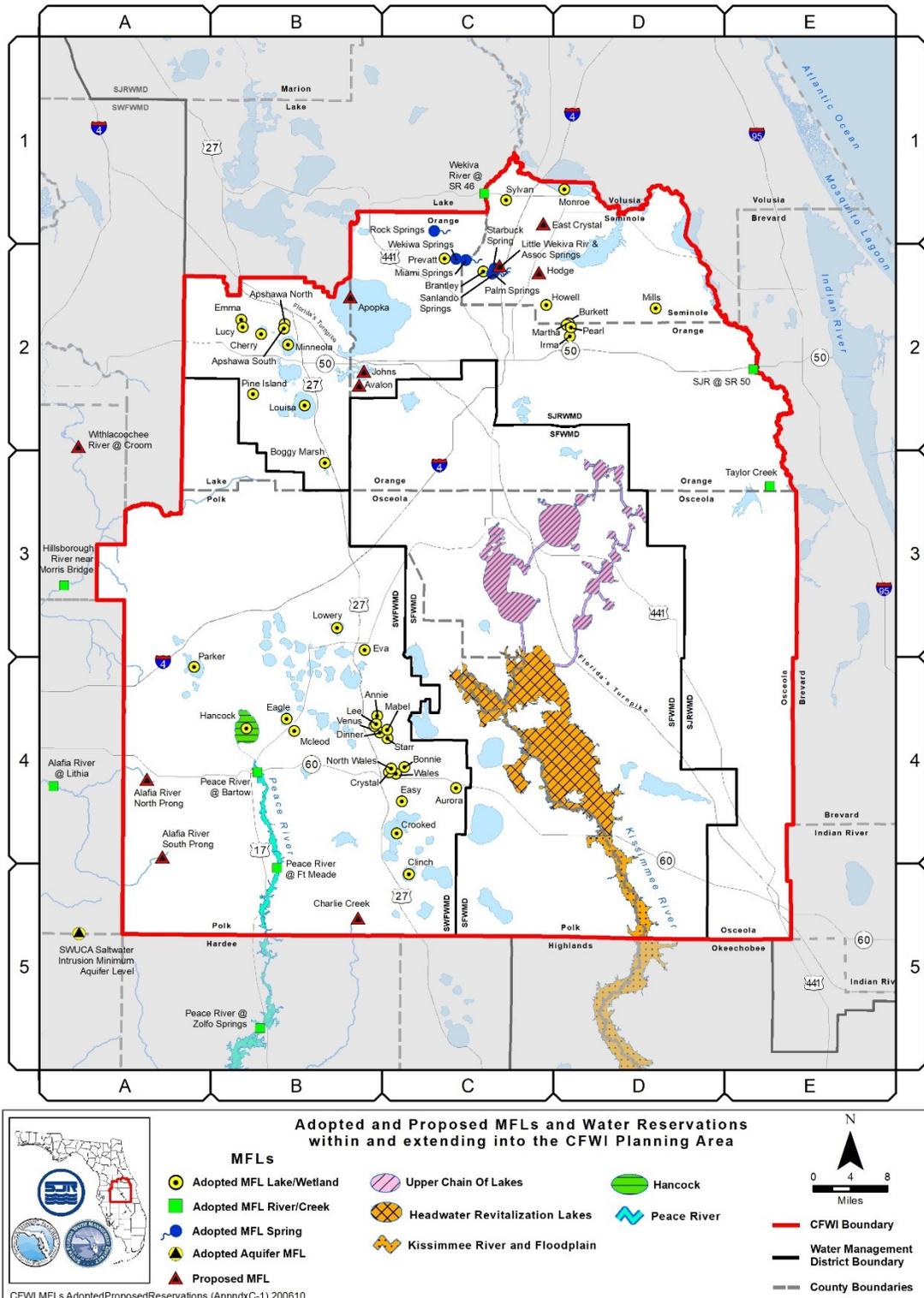


Figure C-1. Adopted and proposed MFLs and proposed water reservations within and extending into the CFWI Planning Area. Adopted MFLs proposed for reevaluation (**Table C-2**) are not specifically identified on this map.

Table C-2. Summary of adopted MFLs and those that are scheduled for MFLs or reservation adoption or reevaluation within and extending into the CFWI Planning Area.

Map Grid ^a	Water Body Name	County	District ^b	Year Adopted ^c	2017 MFLs Status ^d	Scheduled for MFLs or Reservation Adoption or Reevaluation
Lakes and Wetlands						
B-4	Annie, Lake	Polk	SWFWMD	2007	Met	N/A
B-2	Apopka, Lake	Lake/ Orange	SJRWMD	N/A	N/A	MFLs Adoption
C-4	Aurora, Lake	Polk	SWFWMD	2018	Not Met	N/A
B-2	Avalon, Lake or Johns Lake ^e	Orange	SJRWMD	N/A	N/A	MFLs Adoption
B-3	Boggy Marsh	Lake	SJRWMD	2001	Met	N/A
C-4	Bonnie, Lake	Polk	SWFWMD	2007	Not Met	N/A
C-2	Brantley, Lake	Orange	SJRWMD	2001	Met	N/A
D-2	Burkett, Lake	Orange	SJRWMD	2002	Met	N/A
B-2	Cherry Lake	Lake	SJRWMD	2002	Met	N/A
C-5	Clinch, Lake	Polk	SWFWMD	2017	Met	N/A
C-4	Crooked Lake	Polk	SWFWMD	2017	Met	N/A
C-4	Crystal Lake	Polk	SWFWMD	2011	Met	N/A
B-4	Dinner Lake	Polk	SWFWMD	2007	Met	N/A
B-4	Eagle Lake	Polk	SWFWMD	2017	Not Met	N/A
C-4	Easy, Lake	Polk	SWFWMD	2018	Not Met	N/A
C-1	East Crystal Lake	Seminole	SJRWMD	N/A	N/A	MFLs Adoption
B-2	Emma, Lake	Lake	SJRWMD	2003	Met	N/A
B-3	Eva, Lake	Polk	SWFWMD	2018	Not Met	N/A
B-4	Hancock, Lake	Polk	SWFWMD	2016	Met	Reservation Adoption
C-3, C-4, D-3, D-4	Headwater Revitalization Lakes (Cypress, Hatchineha, Kissimmee and Tiger)	Osceola/ Polk	SFWMD	N/A	N/A	Reservation Adoption
C-2	Hodge, Lake	Orange	SJRWMD	N/A	N/A	MFLs Adoption
D-2	Howell, Lake	Seminole	SJRWMD	2001	Met	N/A
D-2	Irma, Lake	Orange	SJRWMD	2002	Met	N/A
B-4	Lee, lake	Polk	SWFWMD	2007	Met	N/A
B-2	Louisa, Lake	Lake	SJRWMD	2000	Met	N/A
B-3	Lowery, Lake	Polk	SWFWMD	2018	Met	N/A
B-2	Lucy, Lake	Lake	SJRWMD	2003	Met	N/A
C-4	Mabel, Lake	Polk	SWFWMD	2007	Met	N/A
D-2	Martha, Lake	Orange	SJRWMD	2002	Met	N/A
B-4	McLeod, Lake	Polk	SWFWMD	2017	Not Met	N/A
D-2	Mills Lake	Seminole	SJRWMD	1998	Met	N/A
B-2	Minneola, Lake	Lake	SJRWMD	2002	Met	N/A
D-1	Monroe, Lake	Volusia/ Seminole	SJRWMD	2007	Met	N/A
B-2	North Lake Apschawa	Lake	SJRWMD	2002	Met	N/A
C-4	North Lake Wales	Polk	SWFWMD	2011	Not Met	N/A
A-4	Parker, Lake	Polk	SWFWMD	2006	Met	N/A
D-2	Pearl, Lake	Orange	SJRWMD	2002	Met	N/A
B-2	Pine Island Lake	Lake	SJRWMD	2001	Met	N/A
C-2	Prevatt Lake	Orange	SJRWMD	1998	Met	MFLs Reevaluation

Table C-2. Summary of adopted MFLs and those that are scheduled for MFLs or reservation adoption or reevaluation within and extending into the CFWI Planning Area.

Map Grid ^a	Water Body Name	County	District ^b	Year Adopted ^c	2017 MFLs Status ^d	Scheduled for MFLs or Reservation Adoption or Reevaluation
B-2	South Lake Apschawa	Lake	SJRWMD	2002	Met	MFLs Reevaluation
C-4	Starr, Lake	Polk	SWFWMD	2017	Not Met	N/A
C-1	Sylvan Lake	Seminole	SJRWMD	1998	Met	MFLs Reevaluation
C-3, D-3	Upper Chain of Lakes (Alligator, Brick, Coon, Gentry, Hart, Joel, Lizzie, Mary Jane, Myrtle, Preston, Tohopekaliga, Trout and East Lake Tohopekaliga)	Orange/ Osceola	SFWMD	N/A	N/A	Reservation Adoption
B-4	Venus Lake	Polk	SWFWMD	2007	Met	N/A
C-4	Wailes, Lake	Polk	SWFWMD	2017	Not Met	N/A
Rivers and Creeks						
A-4	Alafia River at Lithia (upper segment) ^e	Polk/ Hillsborough	SWFWMD	2008	Met	N/A
B-5	Charlie Creek	Polk/Hardee	SWFWMD	N/A	N/A	MFLs Adoption
A-3	Hillsborough River at Morris Bridge (upper segment) ^f	Polk/ Hillsborough	SWFWMD	2008	Met	N/A
D-4, D-5	Kissimmee River and Floodplain	Osceola/Polk Highlands/Okeechobee	SFWMD	N/A	N/A	Reservation Adoption
C-2	Little Wekiva River	Seminole	SJRWMD	N/A	N/A	MFLs Adoption
A-4	North Prong Alafia River ^f	Polk/ Hillsborough	SWFWMD	N/A	N/A	MFLs Adoption
B-4	Peace River at Bartow	Polk	SWFWMD	2006	Not Met	MFLs Reevaluation
B-4, B-5	Peace River at Ft. Meade	Polk	SWFWMD	2006	Not Met	MFLs Reevaluation
B-5	Peace River at Zolfo Springs ^f	Polk/Hardee	SWFWMD	2006	Met	MFLs Reevaluation
	Peace River (upper segment)	Polk/Hardee	SWFWMD	N/A	N/A	Reservation Adoption
A-4, A-5	South Prong Alafia River ^f	Polk/ Hillsborough	SWFWMD	N/A	N/A	MFLs Adoption
E-2	St. Johns River at State Road 50 (near Christmas)	Brevard/ Orange	SJRWMD	2007	Met	N/A
E-3	Taylor Creek	Osceola/ Orange	SJRWMD	2000	Met	N/A
C-1	Wekiva River at State Road 46	Lake/Seminole	SJRWMD	1992	Met	MFLs Reevaluation

Table C-2. Summary of adopted MFLs and those that are scheduled for MFLs or reservation adoption or reevaluation within and extending into the CFWI Planning Area.

Map Grid ^a	Water Body Name	County	District ^b	Year Adopted ^c	2017 MFLs Status ^d	Scheduled for MFLs or Reservation Adoption or Reevaluation
Rivers and Creeks (continued)						
A-2, A-3, B-3	Withlacoochee River at Croom (upper segment) ^f	Polk/Lake/Hillsborough	SWFWMD	N/A	N/A	MFLs Adoption
Springs						
C-2	Miami Springs ^{gh}	Seminole	SJRWMD	1992	Met	MFLs Reevaluation
C-2	Palm Springs ^{gi}	Seminole	SJRWMD	1992	Not Met	MFLs Reevaluation
C-1	Rock Springs ^g	Orange	SJRWMD	1992	Met	MFLs Reevaluation
C-2	Sanlando Springs ^{gi}	Seminole	SJRWMD	1992	Met	MFLs Reevaluation
C-2	Starbuck Spring ^{gi}	Seminole	SJRWMD	1992	Met	MFLs Reevaluation
C-2	Wekiwa Springs ^g	Orange	SJRWMD	1992	Met	MFLs Reevaluation
Aquifers						
A-5	SWUCA Saltwater Intrusion Minimum Aquifer Level ^j	Hillsborough/Manatee/Sarasota	SWFWMD	2006	Not Met	MFLs Reevaluation

^a Map grid refers to **Figure C-1**.

^b St. Johns River Water Management District (SJRWMD), South Florida Water Management District (SFWMD), and Southwest Florida Water Management District (SWFWMD).

^c Date listed is the adoption year for the MFLs rule. In some instances, Governing Board approval for initiation of rulemaking may have occurred in the preceding year and/or the rule may have become effective in the following year.

^d Status is based on the 2017 Statewide Annual Report, information used to support development of 2018 Water Management District performance measures that were submitted to FDEP, and more recent assessments.

^e MFLs will be developed for either Lake Avalon or Johns lake, but not both.

^f River segment extends into the CFWI Planning Area, although the gauge site associated with the adopted minimum flow is outside the CFWI Planning Area.

^g Although minimum spring flows were set primarily to cumulatively maintain minimum flows in the Wekiva River System, the assumption was also made that these flows would be sufficient to protect the ecology of individual springs.

^h Reevaluated spring MFLs may be consolidated with reevaluated Wekiwa Springs MFLs.

ⁱ Reevaluated spring MFLs may be consolidated with Little Wekiva River MFLs.

^j Well sites associated with the adopted Southern Water Use Caution Area (SWUCA) Saltwater Intrusion Minimum Aquifer Level are outside of the CFWI Planning Area, but groundwater withdrawals within the CFWI Planning Area may affect water levels in the wells.

N/A – Not applicable

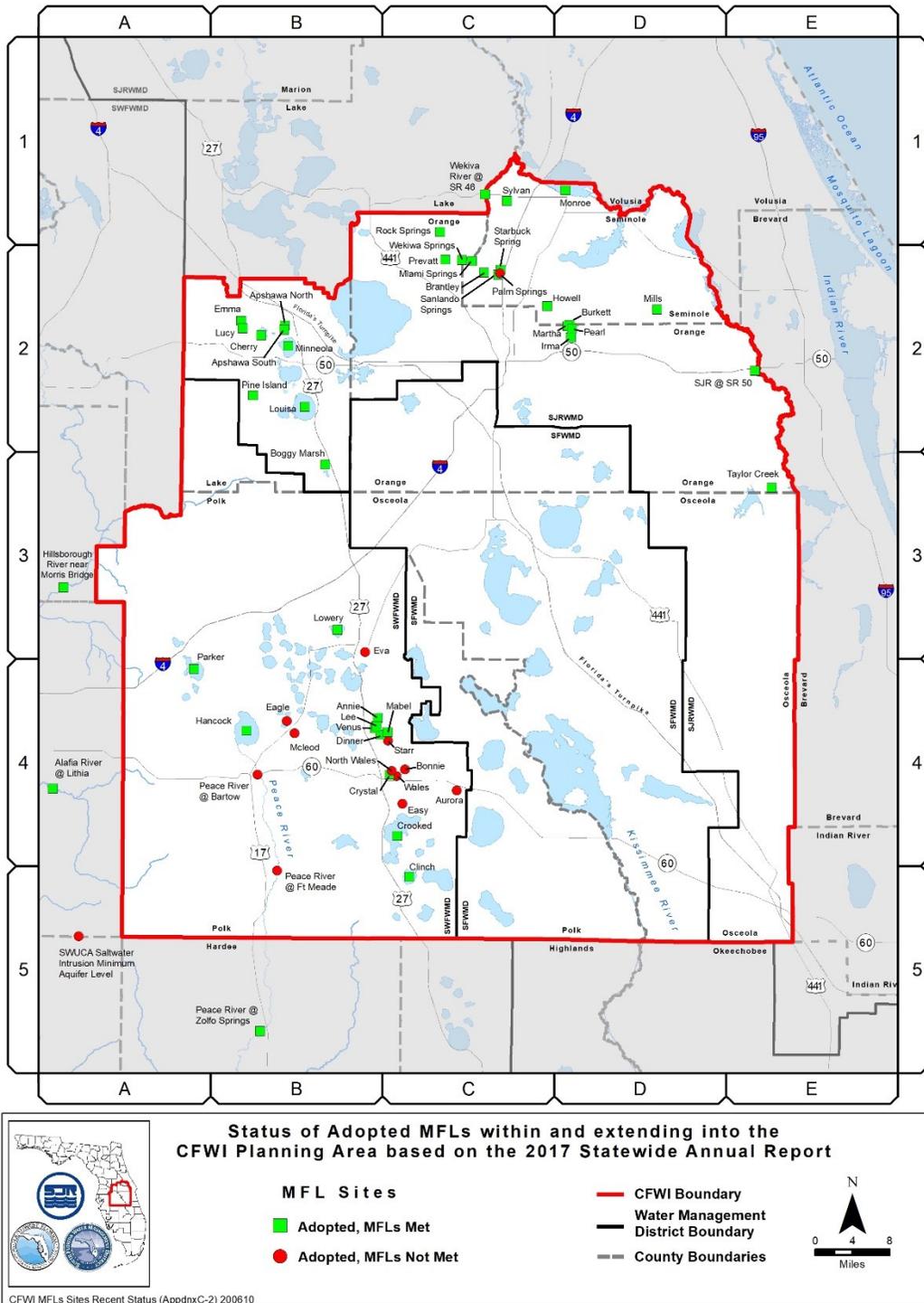


Figure C-2. Status of adopted MFLs within and extending into the CFWI Planning Area based on the 2017 Statewide Annual Report (STAR), information used to support development of 2018 Water Management District performance measures that were submitted to FDEP, and more recent assessments.

Water Reservations

A water reservation for the Kissimmee River and Chain of Lakes (KCOL) is under development by the SFWMD. The Kissimmee River system is undergoing a major restoration effort and is anticipated to be completed in 2020. When fully implemented, is anticipated to require water to be stored in and released from the KCOL and its tributaries as part of a management strategy balancing flood control and environmental restoration. The KCOL Water Reservation area is 172,500 acres and spans portions of the SFWMD's Upper Kissimmee Basin Planning Area (part of the CFWI) as well as the SFWMD's Lower Kissimmee Basin Planning Area. The KCOL (Upper Chain of Lakes and the Headwaters Revitalization Lakes) is the primary source of water for the Kissimmee River (**Figure C-3, Table C-2**).

The SFWMD is developing a water reservation for Lake Hancock and lower Saddle Creek to support minimum flows recovery in the upper Peace River (**Figure C-1, Table C-2**). The proposed reservation protects the water stored in Lake Hancock within a range of specified stages and the water released from the lake to Saddle Creek for the protection of fish and wildlife through recovery of minimum flows in the upper Peace River. Rule development for this proposed reservation is anticipated to be completed in 2020.

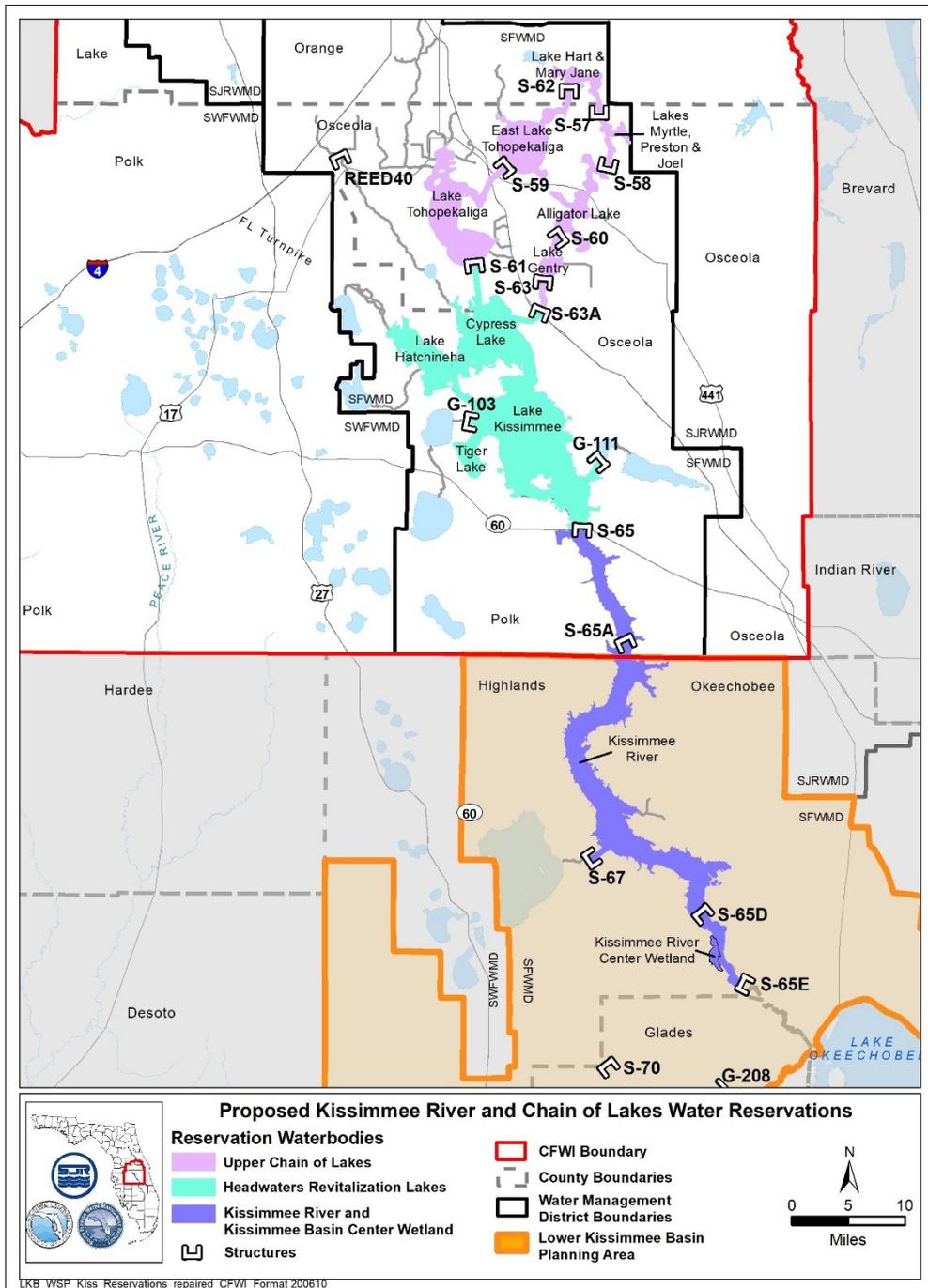


Figure C-3. Proposed Kissimmee River and Chain of Lakes Water Reservation.

ADOPTED RECOVERY OR PREVENTION STRATEGIES

Currently, there is one adopted recovery strategy and no adopted prevention strategies in the CFWI Planning Area. The SWUCA Recovery Strategy is being implemented for lakes and river segments in the SWFWMD portion of the CFWI Planning Area where MFLs are not being met. The SWUCA Recovery Strategy is also in place for the SWUCA SWIMAL and other SWUCA waterbodies outside the CFWI Planning Area where adopted MFLs are not being met.

Southern Water Use Caution Area Recovery Strategy

The SWUCA (**Figure C-4**) includes the 5,100 square mile southern portion of SWFWMD where depressed aquifer levels have caused saltwater intrusion into the UFA along the coast in the MIA region, contributed to reduced flows in the Upper Peace River, and lowered lake levels in portions of Polk and Highlands counties. The SWFWMD is currently implementing the SWUCA Recovery Strategy (Rule 40D-80.074, F.A.C. and SWFWMD 2006) as a means to achieve four specific goals by 2025: 1) restore minimum levels to priority lakes; 2) restore minimum flows to the Upper Peace River; 3) reduce the rate of saltwater intrusion in the MIA of the SWUCA by achieving a minimum aquifer level developed to address saltwater intrusion (i.e., the SWUCA SWIMAL); and 4) ensure that there are sufficient water supplies for all existing and projected reasonable and beneficial uses.

As part of the SWUCA Recovery Strategy, applications for groundwater withdrawals are evaluated to determine whether the proposed withdrawals impact groundwater levels below the Upper Peace River, where two of three established MFLs are not being met, and impact groundwater levels in the Ridge Lakes area, where several lake MFLs are also not being met. These impacts to groundwater levels are assessed using water levels for separate sets of wells in the Peace River and Lake Wales Ridge regions. Moving average well water levels for each set are determined for comparison with established target regulatory levels to determine groundwater-level status and to inform water/consumptive use permitting decisions. Locations of the Upper Peace River and Ridge Lakes regulatory wells and the wells that comprise the network used for the establishment and assessment of the SWUCA SWIMAL are shown in **Figure C-4**. Summary information on the recent status of water level targets for the wells, based on water level records measured through 2018, is provided in **Table C-3**. Status information for the SWUCA SWIMAL is presented in **Table C-2** and **Figure C-2**.

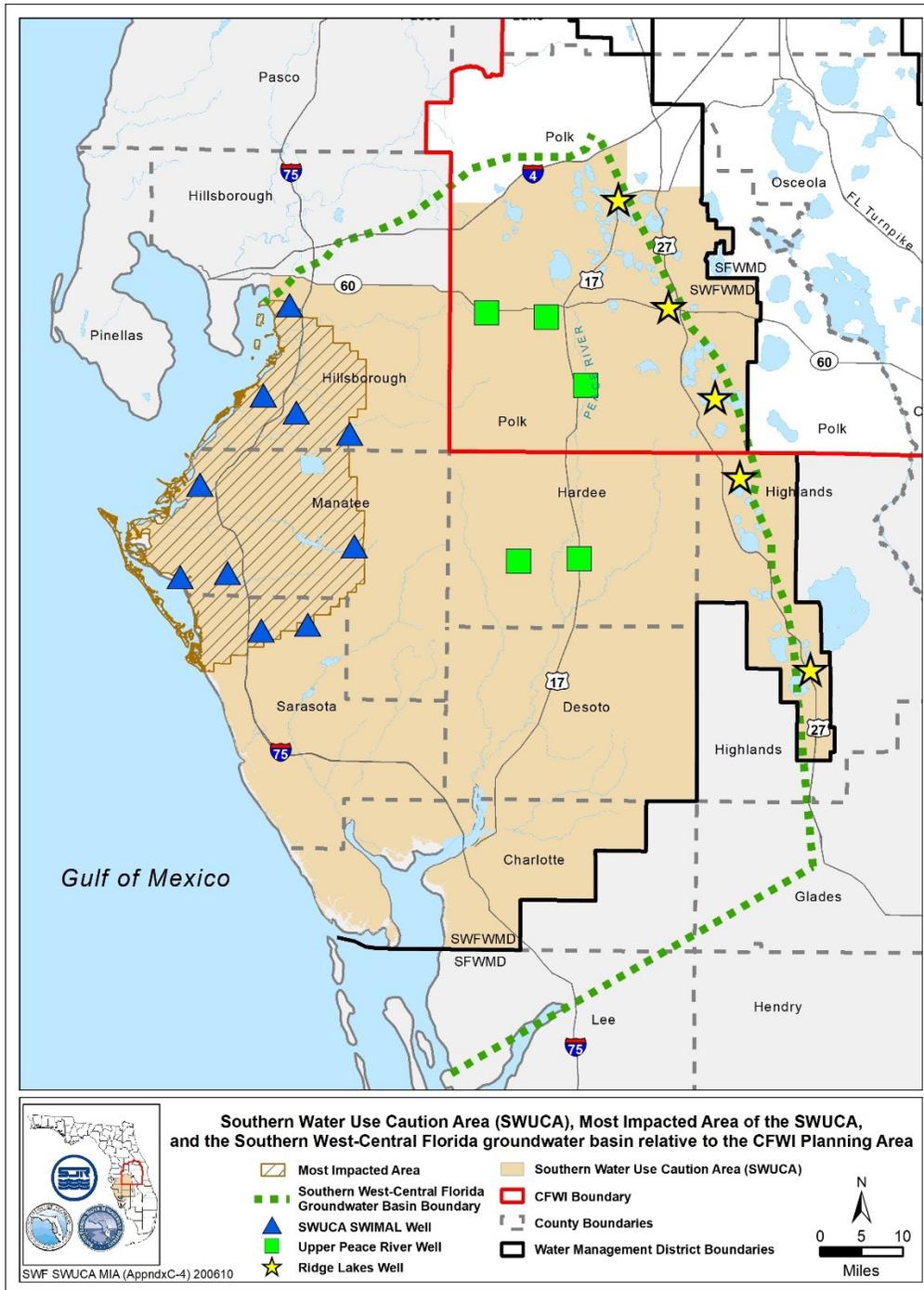


Figure C-4. Southern Water Use Caution Area (SWUCA), Most Impacted Area of the SWUCA, and the Southern West-Central Florida groundwater basin relative to the CFWI Planning Area.

Note: Regulatory wells associated with the Saltwater Intrusion Minimum Aquifer Level (SWIMAL) adopted for the Most Impacted Area of the SWUCA, and Upper Peace River and Ridge Lakes regulatory wells established as part of the SWUCA Recovery Strategy are also shown.

Table C-3. Summary information on regulatory wells within and near the CFWI Planning Area established as part of the Southwest Florida Water Management District’s Southern Water Use Caution Area Recovery Strategy.

Map	Regulatory Well Target Name	County	Year Adopted ^a	2018 Regulatory Target Status
Regulatory Wells				
Figure C-4	Ridge Lakes Target Wells ^b	Polk/Highlands	2006	Target Met
	Upper Peace River Target Wells ^b	Polk/Hardee	2006	Target Met

^a Date listed is the adoption year for the recovery strategy rules, which became effective in 2007.

^b Some established Ridge Lakes and Upper Peace River regulatory well sites associated with the Southern Water Use Caution Area (SWUCA) recovery strategy are outside of the CFWI Planning Area, but groundwater withdrawals within the CFWI Planning Area may affect water levels in the wells.

METHODS FOR FREEBOARD AND DEFICIT DETERMINATIONS ASSOCIATED WITH MFL AND MFL-RELATED ENVIRONMENTAL CRITERIA

The ECFTX model was the principal tool used to quantify potential impacts from groundwater withdrawals on water resources. The ECFTX model simulated a 2014 Reference Condition (2014 RC), which was then compared to the scenarios of the 2025, 2030, 2035, and 2040 Withdrawals Conditions. Results of the ECFTX model show changes to water levels in the Upper Floridan aquifer (UFA), surficial aquifer system (SAS), and spring flows. A variety of methods that are unique to evaluation requirements associated with the establishment of MFLs were used to determine the predicted change in UFA water levels or flows that would be associated with a predicted change in status for the existing and proposed MFLs and MFL-related environmental criteria.

Changes in groundwater levels or surface water flows that could be associated with potential change in the status of the assessed environmental criteria were characterized as freeboard or deficit values. For these analyses, “freeboard” is defined as the magnitude of drawdown of the potentiometric surface of the UFA or flow reduction in the vicinity of an MFL or MFL-related site that can occur without causing violation of an adopted MFL or MFLs-related environmental criterion. Conversely, the magnitude of rebound in the potentiometric surface of the UFA or increase in flow in the vicinity of a site that would be necessary to recover or meet established MFLs or MFLs-related criteria is referred to as a “deficit.”

Freeboard and deficit are expressed as the allowable drawdown or necessary rebound in the UFA, in feet, for lake and wetland MFLs, the SWUCA SWIMAL, and target water levels for regulatory wells in the Ridge Lakes (i.e., Lake Wales Ridge) and Upper Peace River areas that are associated with the SWUCA Recovery Strategy. For spring and river MFLs, freeboard and deficit are expressed as a flow rate in cubic feet per second (cfs).

Initial freeboard/deficit analyses were based on several ECFTX model scenarios, identified below. Results for the 2005 Reference Condition from the 2015 CFWI RWSP (CFWI 2015a, b) were also used for initial freeboard/deficit analyses for waterbodies within the SJRWMD

portion of the CFWI Planning Area. Detailed descriptions of scenario development can be found in **Appendix D** and *ECFTX Model Documentation Report* (CFWI 2019).

ECFTX model scenarios:

- ◆ **2014 Reference Condition (2014 RC):** A scenario representing 2014 withdrawals (619 mgd) adjusted for climatic conditions simulated with the ECFTX model. The 2014 RC was used for comparison with other ECFTX model scenario results to predict freeboard/deficits and quantify freeboard/deficit changes relative to the 2014 RC for MFLs and MFL-related environmental criteria within the CFWI Planning Area.
- ◆ **2025 Withdrawals Condition:** A scenario representing projected 2025 withdrawals (753 mgd) simulated with the ECFTX model. The 2025 Withdrawals Condition results were used to predict freeboard/deficit changes relative to the 2014 RC for MFLs and MFL-related environmental criteria in the SJRWMD and SWFWMD. This scenario was evaluated based on the assumption that impacts associated with the 2040 Withdrawals Condition may limit groundwater availability, and if this were the case, it would be necessary to evaluate impacts associated with groundwater withdrawals less than those projected for 2040.
- ◆ **2030 Withdrawals Condition:** A scenario representing projected 2030 withdrawals (796 mgd) simulated with the ECFTX model. The 2030 Withdrawals Condition results were used to predict freeboard/deficit changes relative to the 2014 RC for MFLs and MFL-related environmental criteria in the SJRWMD and SWFWMD. This scenario was evaluated based on the assumption that impacts associated with the 2040 Withdrawals Condition may limit groundwater availability, and if this were the case, it would be necessary to evaluate impacts associated with groundwater withdrawals less than those projected for 2040.
- ◆ **2035 Withdrawals Condition:** A scenario representing projected 2035 withdrawals (825 mgd) simulated with the ECFTX model. The 2035 Withdrawals Condition results were used to predict freeboard/deficit changes relative to the 2014 RC for selected MFLs criteria in the SJRWMD. This scenario was evaluated for these criteria based on the assumption that impacts associated with the 2040 Withdrawals Condition may limit groundwater availability, and if this were the case, it would be necessary to evaluate impacts to selected criteria associated with groundwater withdrawals less than those projected for 2040.
- ◆ **2040 Withdrawals Condition:** A scenario representing projected 2040 withdrawals (861 mgd) simulated with the ECFTX model. The 2040 Withdrawals Condition results were used to predict freeboard/deficit changes relative to the 2014 RC for MFLs and MFL-related environmental criteria in the SJRWMD and SWFWMD.
- ◆ **2003 Withdrawals Condition:** A scenario representing 2003 withdrawals simulated with the ECFTX model. The 2003 Withdrawals Condition results were used with 2014 RC results to assess freeboard/deficits for the 2014 RC for selected MFLs environmental criteria within the SJRWMD.
- ◆ **2005 Withdrawals Condition:** A scenario representing 2005 withdrawals simulated with the ECFTX model. The 2005 Withdrawals Condition results were used with 2014 RC results to assess freeboard/deficits for the 2014 RC for selected MFLs environmental criteria within the SJRWMD.

- ◆ **Calibration Withdrawals Condition:** A scenario representing historical withdrawals for the period from 2003 through 2014 simulated with the ECFTX model. Calibration Condition results were used with 50 percent Calibration Withdrawals Condition and 2014 RC results to assess freeboard/deficits for the 2014 RC for selected MFLs and MFL-related environmental criteria within the SWFWMD.
- ◆ **50 percent Reduced Calibration Withdrawals Condition:** A scenario representing a 50 percent reduction in withdrawals associated with the Calibration Withdrawals Condition simulated with the ECFTX model. The 50 percent Reduced Calibration Condition results were used with the Calibration Withdrawals Condition and 2014 RC results to assess freeboard/deficits for the 2014 RC for selected MFLs and MFL-related environmental criteria within the SWFWMD.

PROPOSED MFLS AND MFL-RELATED ENVIRONMENTAL CRITERIA FOR GROUNDWATER AVAILABILITY ASSESSMENTS

A subset of existing or currently proposed MFL sites (from **Table C-2**) and MFL-related regulatory wells (**Table C-3**) were identified for potential use as environmental criteria in the evaluation of regional groundwater availability in the CFWI Planning Area. The subset consisted of 53 MFLs and MFL-related environmental criteria (**Table C-4**), including:

- ◆ Adopted MFLs for 29 lakes/wetlands, six springs, one river segment, and SWIMAL for the SWUCA MIA;
- ◆ An established target regulatory water level based on five UFA wells (Ridge Lakes Target Wells) used to characterize groundwater levels below Lake Wales Ridge Lakes where MFLs have been established in the SWUCA and are being recovered;
- ◆ An established target regulatory water level based on five UFA wells (Upper Peace River Target Wells) used to characterize groundwater levels south of the Upper Peace River where MFLs have been established in the SWUCA and are being recovered;
- ◆ As available, MFLs that may be proposed but are not yet adopted for three lakes and one river segment; and
- ◆ As available, reevaluated MFLs that may be proposed but are not yet adopted for three lakes, one river segment, and six springs with established MFLs (reevaluation MFLs).

Thirty-nine of the 53 potential MFLs and MFLs-related environmental criteria, including 29 lakes/wetlands, 6 springs, 1 river segment, the SWIMAL, and target well water levels below the Lake Wales Ridge and Upper Peace River areas that are associated with the recovery of MFLs were ultimately used as environmental criteria for this 2020 CFWI RWSW groundwater availability assessment (**Table C-4, Figure C-5**).

The 14 potential criteria excluded from the assessment were associated with MFLs scheduled for adoption or reevaluation that were not available at the time the GAT was determining groundwater availability options. The excluded, potential criteria were MFLs to be established for three lakes (Avalon or Johns, East Crystal, and Hodge) and one river segment

(Little Wekiva) that currently lack adopted MFLs. In addition, MFLs yet to be developed that will, as necessary, replace existing, adopted MFLs for three lakes (Prevatt, South Apschawa, and Sylvan), one river segment (Wekiva River at State Road 46), six springs (Miami, Palm, Rock, Sanlando, Starbuck, and Wekiwa) and the SWUCA SWIMAL were also excluded (**Table C-4**).

In addition, several waterbodies with adopted MFLs were also excluded from consideration as potential environmental criteria. Three river segments in the SJRWMD (Lake Monroe, St. Johns River at State Road 50, and Taylor Creek) were excluded based on limited UFA spring flow contributions to their flows. Four river segments that are located within or extend into the SWFWMD portion of the CFWI Planning Area (Alafia River at Lithia, Hillsborough River at Morris Bridge, and Peace River at Zolfo Springs) were excluded from consideration based on the limitations in application of ECFTX model predicted baseflow contributions to the rivers and the limited watershed area of each river within the CFWI Planning Area. Nine CFWI Planning Area lakes within the SWFWMD (lakes Annie, Bonnie, Clinch, Crystal, Dinner, Lee, Mabel, North Wales, and Venus) were excluded from consideration as environmental criteria based on the unavailability of hydrologic tools (e.g., models) that could be used to associate ECFTX model predicted changes in UFA water levels with lake-level changes.

Table C-4. MFLs and MFL-related environmental criteria identified for evaluation of regional groundwater availability in the CFWI Planning Area, as of September 2019.

Map Grid ^a	Water Body/ Regulatory Well Target Name	County	District ^b	Year Adopted ^c	Scheduled for MFLs or Reservation Adoption or Reevaluation	Used for Groundwater Availability Evaluation
Lake and Wetland MFLs						
C-4	Aurora, Lake	Polk	SWFWMD	2018	N/A	Yes
B-2	Avalon Lake <i>or</i> Johns Lake ^d	Orange	SJRWMD	N/A	MFLs Adoption ^e	No
B-3	Boggy Marsh	Lake	SJRWMD	2001	N/A	Yes
C-2	Brantley, Lake	Orange	SJRWMD	2001	N/A	Yes
D-2	Burkett, Lake	Orange	SJRWMD	2002	N/A	Yes
B-2	Cherry Lake	Lake	SJRWMD	2002	N/A	Yes
C-4	Crooked Lake	Polk	SWFWMD	2017	N/A	Yes
B-4	Eagle Lake	Polk	SWFWMD	2017	N/A	Yes
C-1	East Crystal Lake	Seminole	SJRWMD	N/A	MFLs Adoption ^e	No
C-4	Easy, Lake	Polk	SWFWMD	2018	N/A	Yes
B-2	Emma, Lake	Lake	SJRWMD	2003	N/A	Yes
B-3	Eva, Lake	Polk	SWFWMD	2018	N/A	Yes
B-4	Hancock, Lake	Polk	SWFWMD	2016	Reservation Adoption ^e	Yes; used currently adopted minimum levels
C-2	Hodge, Lake	Seminole	SJRWMD	N/A	MFLs Adoption ^e	No
D-2	Howell, Lake	Seminole	SJRWMD	2001	N/A	Yes
D-2	Irma, Lake	Orange	SJRWMD	2002	N/A	Yes
B-2	Louisa, Lake	Lake	SJRWMD	2000	N/A	Yes
B-3	Lowery, Lake	Polk	SWFWMD	2018	N/A	Yes
B-2	Lucy, Lake	Lake	SJRWMD	2003	N/A	Yes
D-2	Martha, Lake	Orange	SJRWMD	2002	N/A	Yes
B-4	McLeod, Lake	Polk	SWFWMD	2017	N/A	Yes
D-2	Mills Lake	Seminole	SJRWMD	1998	N/A	Yes
B-2	Minneola, Lake	Lake	SJRWMD	2002	N/A	Yes
B-2	North Lake Apschawa	Lake	SJRWMD	2002	N/A	Yes
A-4	Parker, Lake	Polk	SWFWMD	2006	N/A	Yes
D-2	Pearl, Lake	Orange	SJRWMD	2002	N/A	Yes
B-2	Pine Island Lake	Lake	SJRWMD	2001	N/A	Yes
C-2	Prevatt Lake	Orange	SJRWMD	1998	MFLs Reevaluation ^e	Yes; used currently adopted minimum levels
B-2	South Lake Apschawa	Lake	SJRWMD	2002	MFLs Reevaluation ^e	Yes; used currently adopted minimum levels
C-4	Starr, Lake	Polk	SWFWMD	2017	N/A	Yes

Table C-4. MFLs and MFL-related environmental criteria identified for evaluation of regional groundwater availability in the CFWI Planning Area, as of September 2019.

Map Grid ^a	Water Body/ Regulatory Well Target Name	County	District ^b	Year Adopted ^c	Scheduled for MFLs or Reservation Adoption or Reevaluation	Used for Groundwater Availability Evaluation
C-1	Sylvan Lake	Seminole	SJRWMD	1998	MFLs Reevaluation ^e	Yes; used currently adopted minimum levels
C-4	Wailes, Lake	Polk	SWFWMD	2017	N/A	Yes
River MFLs						
C-2	Little Wekiva River	Seminole	SJRWMD	N/A	MFLs Adoption ^e	No
C-1	Wekiva River at State Road 46	Lake/ Seminole	SJRWMD	1992	MFLs Reevaluation ^e	Yes; used currently adopted minimum flows
Spring MFLs						
C-2	Miami Springs ^{fg}	Seminole	SJRWMD	1992	MFLs Reevaluation ^e	Yes; used currently adopted minimum flows
C-2	Palm Springs ^{fh}	Seminole	SJRWMD	1992	MFLs Reevaluation ^e	Yes; used currently adopted minimum flows
C-1	Rock Springs ^f	Orange	SJRWMD	1992	MFLs Reevaluation ^e	Yes; used currently adopted minimum flows
C-2	Sanlando Springs ^{fh}	Seminole	SJRWMD	1992	MFLs Reevaluation ^e	Yes; used currently adopted minimum flows
C-2	Starbuck Spring ^{fh}	Seminole	SJRWMD	1992	MFLs Reevaluation ^e	Yes; used currently adopted minimum flows
C-2	Wekiwa Springs ^f	Orange	SJRWMD	1992	MFLs Reevaluation ^e	Yes; used currently adopted minimum flows
Aquifer MFLs						
A-5	SWUCA Saltwater Intrusion Minimum Aquifer Level ⁱ	Hillsborough/ Manatee/ Sarasota	SWFWMD	2006	MFLs Reevaluation ^{j,e}	Yes; used currently adopted minimum level
Regulatory Wells						
Figure C-3	Ridge Lakes Regulatory Wells ^{j,k}	Polk/Hardee	SWFWMD	2006	N/A	Yes
	Upper Peace River Regulatory Wells ^{j,k}	Polk	SWFWMD	2006	N/A	Yes

N/A: Not applicable

- a Map grid refers to **Figure C-1**, except for the Ridge Lake and Upper Peace River Regulatory Wells, which are shown in **Figure C-4**.
- b St. Johns River Water Management District (SJRWMD) and Southwest Florida Water Management District (SWFWMD).
- c Date listed is the adoption year for the MFLs rule. In some instances, Governing Board approval for initiation of rulemaking may have occurred in the preceding year and/or the rule may have become effective in the following year.
- d MFLs will be developed for either Lake Avalon or Johns Lake, but not both.
- e Prioritized for MFLs or reservation establishment and/or MFLs reevaluation in 2019 or 2020, but any new or revised MFLs or reservations were not available to support the estimation of groundwater availability.

- f Although minimum spring flows were set primarily to cumulatively maintain minimum flows in the Wekiva River System, the assumption was also made that these flows would be sufficient to protect the ecology of individual springs.
- g Reevaluated spring MFLs may be consolidated with reevaluated Wekiwa Springs MFLs.
- h Reevaluated spring MFLs may be consolidated with reevaluated Little Wekiva River MFLs.
- i Well sites associated with the adopted Southern Water Use Caution Area (SWUCA) Saltwater Intrusion Minimum Aquifer Level are outside of the CFWI Planning Area, but groundwater withdrawals within the CFWI Planning Area may affect water levels in the wells.
- j Prioritized for MFLs reevaluation in 2024, but any new or revised MFLs were not available to support the estimation of groundwater availability.
- k Some established Ridge Lakes and Upper Peace River regulatory wells associated with the Southern Water Use Caution Area (SWUCA) recovery strategy are outside of the CFWI Planning Area, but groundwater withdrawals within the CFWI Planning Area may affect water levels in the wells.

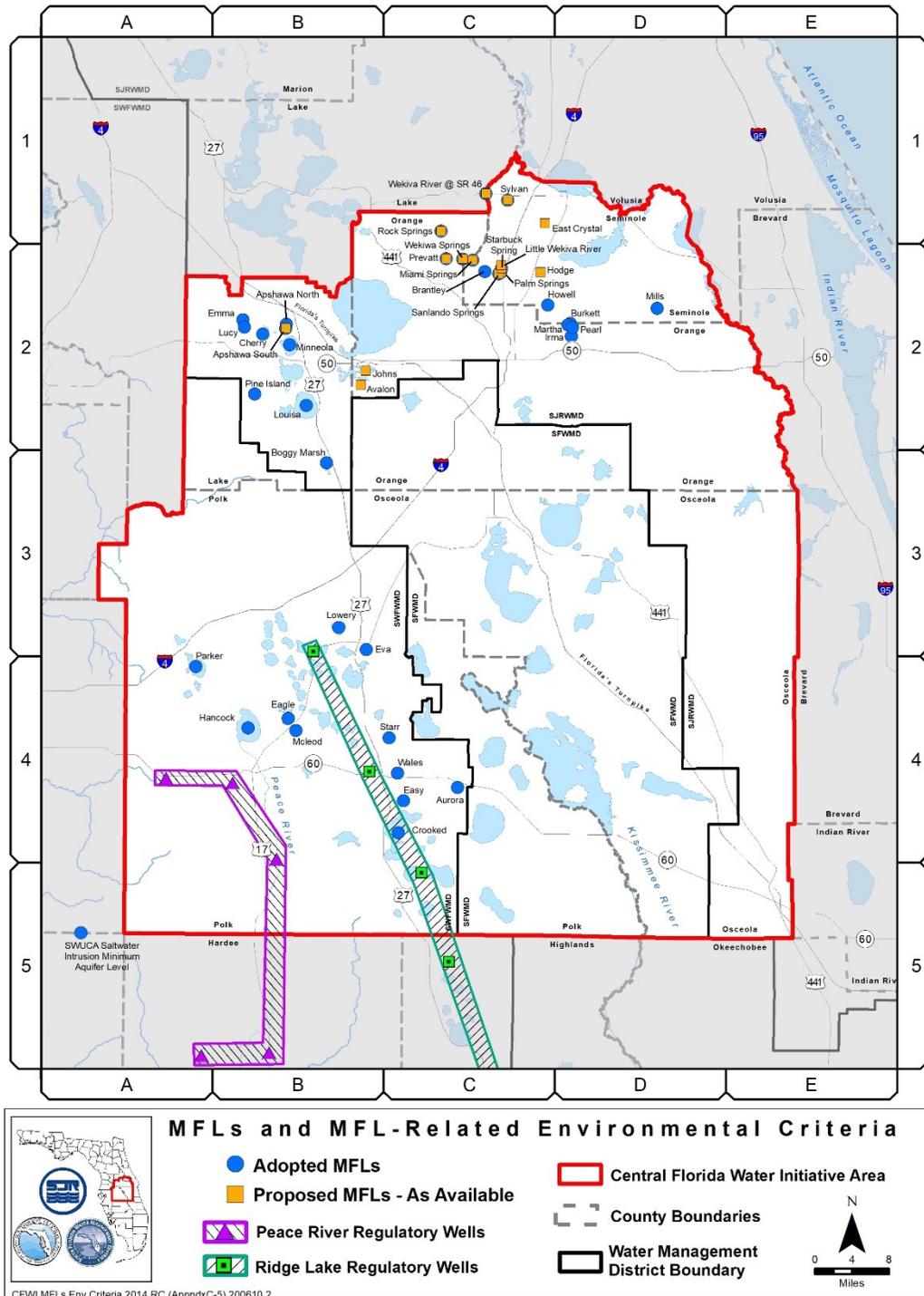


Figure C-5. MFLs and MFL-related environmental criteria identified to support groundwater availability assessments.

Note: Peace River Regulatory Wells and Ridge Lake Regulatory Wells polygons included to group the set of 5 wells for each that is categorized as a criterion, but only 4 Ridge Lake Well locations are depicted in this map. Proposed MFLs were not available for the determination of groundwater availability.

Methods associated with MFLs in the SJRWMD

In support of this 2020 CFWI RWSP, the status of MFLs environmental criteria (**Table C-5**) within the SJRWMD portion of the CFWI Planning Area was assessed based on the 2014 RC. The status of these criteria for the 2014 RC was predicted using previously determined freeboard/deficit values, and results from the 2003 and 2005 Withdrawals Conditions and 2014 RC.

Status assessments for the 2025, 2030, 2035, and 2040 Withdrawals Conditions were subsequently completed based on simple comparisons between drawdown predicted for future conditions and status determinations predicted for the 2014 RC.

Table C-5. 2005 Freeboard/deficits from the 2015 CFWI Regional Water Supply Plan and other summary information for SJRWMD MFLs that were assessed as environmental criteria for this 2020 CFWI Regional Water Supply Plan.

Map Grid ^a	Water Body Name	County	Water Body Type	Year Adopted / Proposed Rule Making	Surface Water Model Year ^b	2005 Freeboard/ Deficit (ft or cfs) ^c
B-2	North Lake Apshawa	Lake	Lake	2002	1998	0.4
B-2	South Lake Apshawa	Lake	Lake	2002 / 2019	1998	0.4
B-3	Boggy Marsh	Lake	Lake / Wetland	2001	2005	2.1
C-2	Brantley, Lake	Seminole	Lake	2001	2003	2.2
B-2	Cherry Lake	Lake	Lake	2002	2003	1.5
B-2	Emma, Lake	Lake	Lake	2003	2003	3.0
B-2	Louisa, Lake	Lake	Lake	2000	2003	2.0
B-2	Lucy, Lake	Lake	Lake	2003	2003	3.0
D-2	Mills Lake	Seminole	Lake	1998	2003	2.3
B-2	Minneola, Lake	Lake	Lake	2002	2003	2.1
B-2	Pine Island Lake	Lake	Lake	2001	2005	1.5
C-2	Prevatt Lake	Orange	Lake	1998 / 2019	2002	1.1
C-1	Sylvan Lake	Seminole	Lake	1998 / 2020	2002	1.1
C-1	Wekiva River at State Road 46	Orange	River	1992 / 2019	1990	8.0
C-2	Miami Springs	Seminole	Spring	1992 / 2019	1990	1.0
C-2	Palm Springs	Seminole	Spring	1992 / 2019	1990	-1.8
C-1	Rock Springs	Orange	Spring	1992 / 2019	1990	2.4
C-2	Sanlando Springs	Seminole	Spring	1992 / 2019	1990	4.0
C-2	Starbuck Spring	Seminole	Spring	1992 / 2019	1990	0.1
C-2	Wekiwa Springs	Orange	Spring	1992 / 2019	1990	2.3

^a Map grid refers to **Figure C-1**.

^b Surface water model year means the year an MFL was assessed, i.e., developed, using a surface water model.

^c Positive values indicate “freeboard” and negative values indicate “deficit” in feet (for lakes/wetlands) and cubic feet per second (for springs and rivers).

All MFL waterbodies in **Table C-5** were individually assessed except for the Wekiwa River at State Road 46. Total flow reduction from 10 springs (Wekiwa, Starbuck, Sanlando, Rock, Palm, Miami, Ginger Ale, Pegasus, Witherington, and Sulfur Springs) associated with the Wekiwa River and Wekiwa Falls was used for freeboard/deficit calculations for the Wekiwa River at State Road 46 MFLs. The process for the assessment of the 10 springs was as follows:

- ◆ For a given ECFTX model scenario, a total flow reduction was calculated by summing the flow reductions estimated by the ECFTX model at all 10 Wekiva River associated MFL springs and Wekiva Falls.
- ◆ To determine the 2014 RC freeboard/deficit for Wekiva River at State Road 46, total flow reductions estimated from the ECFTX model were subtracted from the Wekiva River freeboard listed in **Table C-5**.
- ◆ To determine freeboard/deficit for the 2025, 2030, 2035, and 2040 Withdrawals Conditions for Wekiva River at State Road 46, the total flow reductions estimated from the ECFTX model were subtracted from the 2014 RC freeboard/deficit.

2014 Reference Condition Freeboard/Deficit Calculation for SJRWMD

Since the ECFTX model is a transient model, the 2014 RC hydrograph (monthly UFA levels or spring flows) for each MFL waterbody to be assessed (**Table C-5**) was generated over the model scenario period (from 2003 through 2014). For lakes and wetlands, the hydrographs were based on average predicted water levels for all model grid cells that included the waterbodies. Hydrographs for assessed springs were based on ECFTX model predictions for the spring drain cells included in the model output. As noted previously, the hydrograph generated for the Wekiva River at State Road 46 was developed using the sum of ECFTX model predicted flows for the 10 springs and Wekiva Falls that contribute flow to the river.

To predict the 2014 RC freeboard/deficit, the ECFTX model was run using the respective surface water model year condition for each MFL waterbody, generating a hydrograph (monthly levels or flows) for each MFL waterbody for the scenario period. Two surface water model year condition scenarios (2003 Withdrawals Condition and 2005 Withdrawals Condition) were developed using the ECFTX model and the withdrawals associated with that surface water model year.

These scenarios were developed by applying a set of monthly MFL peaking factors to the average pumping in the respective surface water model year. The MFL peaking factors were used to incorporate seasonal variation in pumping while preserving the average pumping in the respective surface water year throughout the scenario period. The MFL peaking factors were calculated as follows:

$$\text{Peaking Factor in Month } i \text{ of Year } j = \frac{\text{Pumping in Month } i \text{ of Year } j}{\text{Average pumping in Year } j}$$

Where

i: months from January through December; and

j: years from 2003 through 2014

The MFL peaking factors approach used for the 2003 and 2005 Withdrawals Conditions differed from that developed and used for the 2014 RC, 2025, 2030, 2035, and 2040 Withdrawals Conditions (CFWI 2020b; **Appendix D**). The MFL peaking factors approach was used for the 2003 and 2005 Withdrawals Conditions based on the need to preserve the average pumping in the respective surface water year throughout the scenario period. The peaking factors developed for the 2014 RC, 2025, 2030, 2035, and 2040 Withdrawals

Conditions would change the magnitude of average pumping in the respective surface water year, if used. The peaking factors used in the Withdrawal Conditions will be re-evaluated as part of the next RWSP to develop a consistent method that is appropriate for all Withdrawal Conditions.

Because of data limitations with developing spatial distribution of groundwater pumping within the ECFTX model domain for years prior to 2000, the predicted 2005 freeboard shown in **Table C-5** was used for an MFL waterbody if the associated surface water model year was before 2000. In addition, the 2003 Withdrawals Condition was used to assess MFL waterbodies with a surface water model year of 2002, because a 2002 Withdrawals Condition was not simulated with the ECFTX model.

The UFA drawdown (for lakes) or flow reduction (for springs and rivers) for each corresponding MFL waterbody was calculated by averaging the difference between the predicted 2014 RC hydrograph and the predicted surface water model year condition hydrograph. **Figure C-6** illustrates use of the predicted 2014 RC and surface water model year hydrographs for the ECFTX model scenario period to develop an UFA drawdown or flow reduction time-series used to determine the average drawdown or flow reduction. The predicted 2014 RC freeboard or deficit was then determined as summarized in **Table C-6** by subtracting the average drawdown or flow reduction estimated for each corresponding MFL waterbody from the original freeboard/deficit estimated for each MFL waterbody for the surface water model year listed in **Table C-5**.

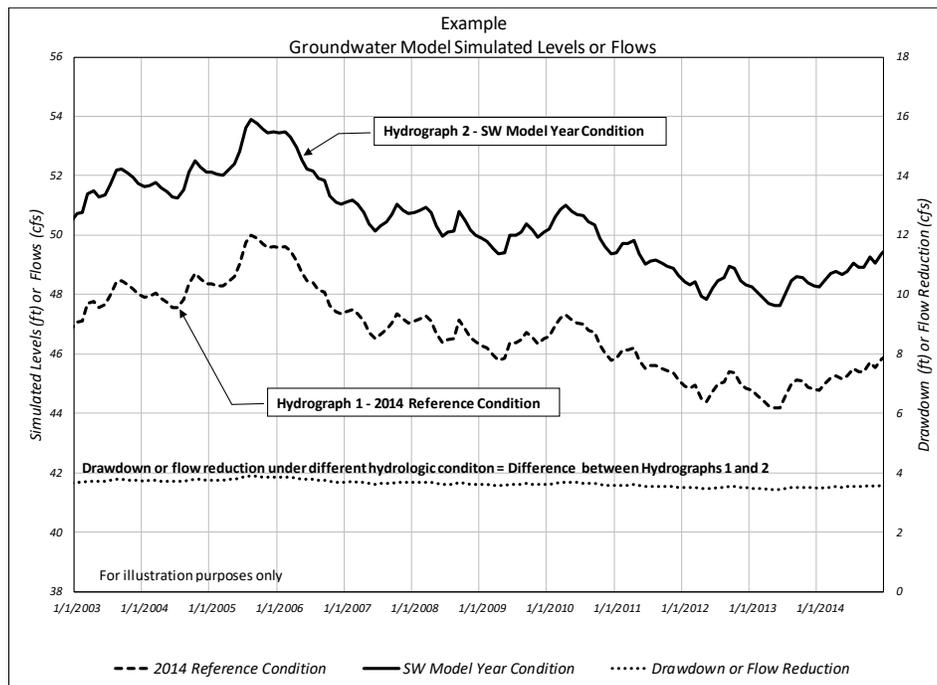


Figure C-6. Illustrative graph for estimating freeboard/deficit for the 2014 Reference Condition using the ECFTX model and Surface Water (SW) Model.

Table C-6. 2014 Reference Condition freeboard/deficit calculations for SJRWMD minimum flows and levels environmental criteria.

SJRWMD Surface Water Model Year in Table C-5	2014 Reference Condition Freeboard or Deficit	ECFTX Scenarios Used
2002	2002 freeboard minus average change in UFA level or flows from 2003 Withdrawals Condition to 2014 Reference Condition	2003 Withdrawals Condition and 2014 Reference Condition
2003	2003 freeboard minus average change in UFA level or flows from 2003 Withdrawals Condition to 2014 Reference Condition	
2005 and Pre-2000	2005 freeboard minus average change in UFA level or flows from 2005 Withdrawals Condition to 2014 Reference Condition	2005 Withdrawals Condition and 2014 Reference Condition

2025, 2030, 2035, and 2040 Withdrawals Conditions Freeboard/Deficit Calculation for SJRWMD

The procedure used to predict freeboard or deficits for MFLs for the 2025, 2030, 2035, and 2040 Withdrawals Conditions was similar to that used for prediction of freeboard/deficit values for the 2014 RC.

Using the results from the ECFTX model runs for the 2014 RC, 2025, 2030, 2035, and 2040 Withdrawals Conditions, the mean difference in predicted monthly UFA water levels between the 2014 RC and each future Withdrawals Condition was determined. For this step, the mean UFA water level for lake/wetland MFL sites and mean flow for spring MFL sites predicted for the 2025, 2030, 2035, and 2040 Withdrawals Conditions was subtracted from the mean UFA water level or spring flow predicted for the 2014 RC. Positive differences were considered representative of the mean, relative (between scenario) drawdown or lowering of UFA water levels or spring flow, and negative differences were considered indicative of the mean, relative rebound, or increased UFA water levels or spring flow between the scenarios.

Predicted freeboard or deficit for the 2025, 2030, 2035, and 2040 Withdrawals Conditions was calculated by subtracting the drawdown or flow reduction estimated for each corresponding MFL waterbody from the freeboard/deficit estimated for each MFL water body for the 2014 RC.

Analyses based on the 2035 Withdrawals Condition were completed specifically for two MFLs criteria within the SJRWMD that were predicted to change status at withdrawal rates between those associated with the 2030 and 2040 Withdrawals Conditions. Two additional criteria predicted to change status between the withdrawal rates included in the 2025 and 2030 Withdrawals Conditions were also assessed using the ECFTX model output for the 2035 Withdrawals Condition.

Methods Associated with MFLs in the SWFWMD

The status of the assessed criteria for the 2014 RC was derived using previously determined freeboard/deficit values, and results from the Calibration Withdrawals Condition, and 50 percent Reduced Calibration Withdrawals Condition. Status assessments for the 2025, 2030, and 2040 Withdrawals Conditions were subsequently completed based on

comparisons between drawdown predicted for future conditions and status determinations predicted for the 2014 RC.

Lakes in the SWFWMD

The SWFWMD has 20 lakes with adopted MFLs within the CFWI Planning Area. Methods used for their development have evolved since the initiation of SWFWMD's MFLs program. In general, the methods used early in the program do not support the determination of available freeboard. This meant that 9 (lakes Annie, Bonnie, Clinch, Crystal, Dinner, Lee, Mabel, North Wales, and Venus) of the 20 lakes with adopted MFLs were excluded from consideration as environmental criteria that could be used to support groundwater availability assessments. The other 11 lakes have been newly established or recently reevaluated with methods that provide a means to determine freeboard/deficit. Two of these 11 lakes are in areas with sufficient confinement between the lake and the UFA resulting in a "no significant Floridan aquifer connection" (NSFAC) designation. These lakes are not sensitive to impacts from Floridan aquifer withdrawals, thus, no freeboard or deficit analysis is needed. As a result, freeboard/deficit predictions were limited to nine lakes with established MFLs. An overview of procedures for development of lake models used in the establishment of lake MFLs is detailed below; specific detail for each MFL can be found in their respective MFL reports available at: www.swfwmd.state.fl.us.

Overview of SWFWMD Lake MFL Establishment Procedure

The current SWFWMD lake MFLs establishment procedure provides a means to calculate freeboard/deficit values. The procedure starts with the development of a lake-specific water budget model calibrated to a recent period (typically 10 or more years) with stable groundwater withdrawals representative of current conditions. The UFA water levels measured at a nearby monitoring well, vertically adjusted for location, are incorporated into the water budget model as a lower boundary condition. Surficial aquifer water levels are also prescribed in the water budget model and adjusted, as appropriate, based on the lake location.

Following calibration of the water budget model, drawdown was removed from the UFA by the addition of recovery (i.e., rebound) equal to the UFA drawdown. Unless otherwise noted in MFL lake-specific model documentation, UFA drawdown calculated from the East Central Florida Transient (ECFT) model (Sepúlveda et al. 2012) was determined by doubling the drawdown resulting from a 50 percent reduction in water use. The surficial drawdown from the ECFT model was not used directly. Instead the leakance coefficient from the water budget model was used along with a relationship established between the leakance coefficient and the ratio of surficial aquifer to UFA drawdown (SWFWMD 1999). The resulting water level time series or hydrograph represents a non-pumping condition.

A long-term non-impacted lake water level data series is derived by using the non-pumping condition water budget model as part of a regression analysis based on local rainfall data to develop a lake-specific rainfall regression model. The regression model is used to extend the non-pumping condition lake hydrograph back to 1946, resulting in a 60-year or greater historic hydrograph.

SWFWMD Determination of Total Freeboard

The lake-specific water budget and rainfall regression models were used to determine the total freeboard available from a non-pumping condition. Because these total freeboard estimates are developed based on a long-term period exceeding 60 years, they incorporate expected wet and dry hydrologic conditions. The process involves lowering the water level hydrograph for the UFA well and SAS well used in the water budget model until the rainfall regression model produces percentiles that match the MFLs adopted for the lake. **Table C-7** lists the SWFWMD MFL lakes assessed as environmental criteria for the ECFTX modeling analysis, and total freeboard for each lake associated with the non-pumping condition.

Table C-7. Total freeboard/deficits and other summary information for SWFWMD MFLs assessed as environmental criteria for this 2020 CFWI Regional Water Supply Plan.

Map Grid ^a	Water Body Name	County	Water Body Type	Year Adopted	Total Freeboard (ft) ^b
C-4	Aurora, Lake	Polk	Lake	2018	2.0
C-4	Crooked Lake	Polk	Lake	2017	1.6
B-4	Eagle Lake	Polk	Lake	2017	2.2
C-4	Easy, Lake	Polk	Lake	2018	1.5
B-3	Eva, Lake	Polk	Lake	2018	2.0
B-4	Hancock, Lake	Polk	Lake	2016	NSFAC
B-3	Lowery, Lake	Polk	Lake	2018	13.1
B-4	McLeod, Lake	Polk	Lake	2017	2.5
A-4	Parker, Lake	Polk	Lake	2006	NSFAC
C-4	Starr, Lake	Polk	Lake	2017	2.0
C-4	Wailes, Lake	Polk	Lake	2017	2.8

^a Map grid refers to **Figure C-1**.

^b In the Upper Floridan aquifer.

NSFAC: No significant Floridan aquifer connection.

2014 Reference Condition Freeboard/Deficit Calculation for SWFWMD

In determine the 2014 RC freeboard or deficit for each MFL lake, a seven-step process was employed.

1. Run the ECFTX model for the 2014 RC using the peaking factor approach (CFWI 2020b; **Appendix D**). The predicted 2014 RC hydrograph (monthly UFA levels or surface water flows) for each of the MFL waterbodies to be assessed (**Table C-7**) was generated over the scenario period. For each MFL lake, the hydrographs were based on average ECFTX-predicted water levels for all model grid cells that included the water body.
2. Run the ECFTX model for the Calibration Withdrawals Condition and 50 percent Reduced Calibration Withdrawals Condition. UFA hydrographs (predicted monthly UFA levels) representing the area beneath each MFL lake were generated for the Calibration Withdrawals Condition and 50 percent Reduced Calibration Withdrawals Condition for the scenario period.
3. Predicted monthly UFA drawdown values associated with the Calibration Withdrawals Condition were calculated for each MFL lake. The monthly drawdown

values were calculated by doubling the drawdown determined from subtraction of UFA water levels predicted for the 50 percent Reduced Calibration Withdrawals Condition from the UFA water levels predicted for the Calibration Withdrawals Condition.

4. Calculate a single UFA drawdown value associated with the Calibration Withdrawals Condition for each MFL lake. The single drawdown values were determined for each MFL lake by averaging the predicted monthly drawdown values for the most recent five-years of the ECFTX model scenario period (i.e., 2010 through 2014).

The average of water levels predicted for the last five years of the Calibration Withdrawals Condition, rather than the average water level for the entire Calibration Withdrawals Condition was used for the analyses to minimize legacy effects associated with actual groundwater withdrawal rates included in the early portion of the Calibration Withdrawals Condition scenario.

5. Prediction of the freeboard or deficit for each MFL lake for the Calibration Withdrawals Condition, was completed by subtracting the single UFA drawdown value predicted for the Calibration Withdrawals Condition from the total freeboard for the respective MFL lake identified in **Table C-7**.
6. The mean difference in predicted UFA water levels between the 2014 RC and Calibration Withdrawals Condition was determined. The mean UFA water level in the vicinity of each MFL lake predicted for the 2014 RC was subtracted from the corresponding mean UFA water level predicted for the last 5 years (2010 through 2014) for the Calibration Withdrawals Condition. Positive differences were considered representative of the mean relative drawdown or lowering of UFA water levels and negative differences were considered indicative of the mean relative rebound, or increased UFA water levels between the modeled scenarios.
7. For a final determination of the predicted 2014 RC freeboard or deficit; the mean drawdown or rebound values were subtracted from the freeboard or deficit values predicted for the Calibration Withdrawals Condition for each MFL lake.

2025, 2030, and 2040 Withdrawals Condition Freeboard/Deficit Calculation for the SWFWMD

Predicted freeboard or deficit for the 2025, 2030, and 2040 Withdrawals Conditions were calculated by subtracting the drawdown estimated for each lake MFL system for the 2025, 2030, and 2040 Withdrawals Conditions from the freeboard/deficit estimated for each MFL system for the 2014 RC.

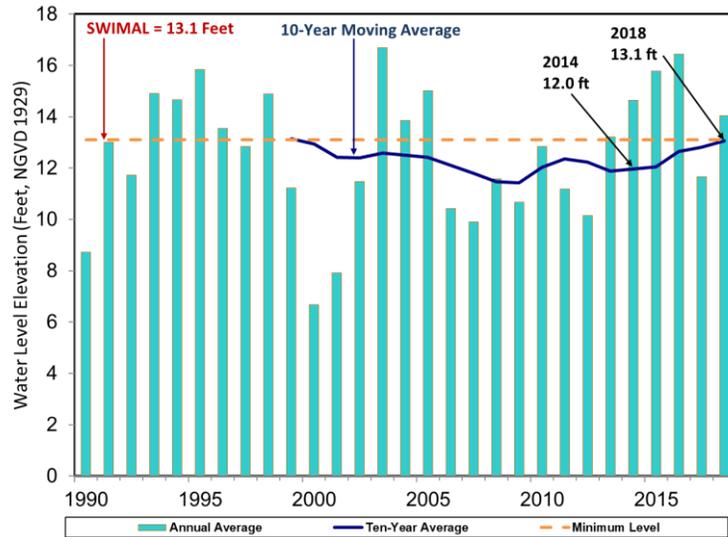
Most Impacted Areas of the SWUCA and the SWUCA SWIMAL in the SWFWMD

Although the MIA of the SWUCA is located outside of the CFWI Planning Area, increased groundwater withdrawals within the CFWI Planning Area, especially in southeast Polk County, could affect groundwater levels in the MIA. These potential withdrawal impacts are

a function of the close geographic concordance between the SWUCA and the Southern West Central Florida Groundwater Basin (SWCFGB) (**Figure C-4**).

The UFA over much of the western and southern portions of the SWCFGB is generally well confined and highly transmissive. Increased withdrawals during the last century has caused up to 50 ft of drawdown from predevelopment conditions in the MIA that contributed to saltwater intrusion in coastal areas. In 2006, a SWIMAL over the surface of the MIA was adopted (the rule became effective in 2007) based on the 10-year (1990 through 1999) average UFA water level of 13.1 ft above NGVD29 (National Vertical Geodetic Datum) in ten regional wells, along with MFLs for several lakes on the Lake Wales Ridge and the upper Peace River.

Because most of these levels and flows were not being met, the SWUCA Recovery Strategy (SWFWMD 2006) was adopted with the goal of achieving the MFLs by 2025. All applications for withdrawals in the SWUCA are evaluated in terms of their projected effects on the SWUCA SWIMAL. Although the SWIMAL has not yet been met, recent groundwater-level trends in the MIA are encouraging and, in 2018, a 10-year average UFA water level of 13.1 feet was achieved for the wells associated with the SWIMAL (**Figure C-7**). The SWIMAL is not, however, considered met until the 10-year average UFA water level has fluctuated at or above 13.1 feet for a minimum of five consecutive years. Because the SWIMAL has not yet been met, it must be demonstrated that planned changes in withdrawals do not cause drawdown to occur along the MIA boundary.



Note: Bars in the plot show mean annual water levels for the ten regulatory wells; the dashed orange horizontal line identifies the SWIMAL elevation of 13.1 ft above NGVD29; and the blue line represents running ten-year mean water levels for the wells through the 2018 value of 13.1 ft above NGVD29. The 2014 elevation of 12.0 ft. above NGVD29 is used in the freeboard analysis.

Figure C-7. Status of Upper Floridan aquifer levels at regulatory wells in the Most Impacted Area of the Southern Water Use Cautions Area (SWUCA) relative to the SWUCA Saltwater Intrusion Minimum Aquifer Level (SWIMAL).

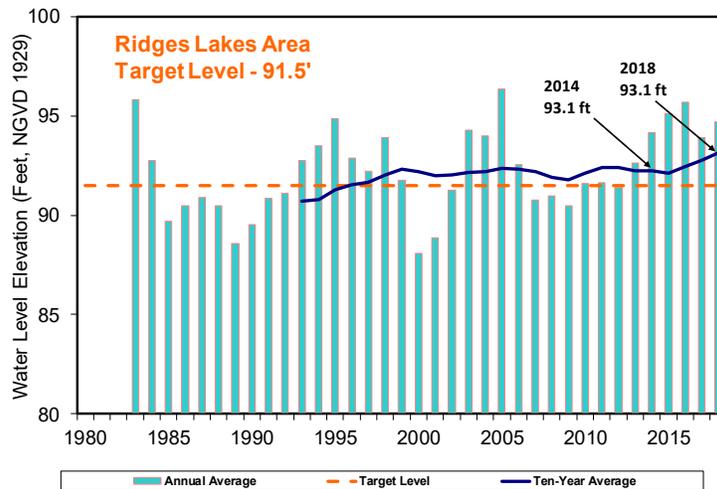
Based on the potential for CFWI Planning Area withdrawal effects to propagate to the MIA and adversely affect the status of the SWUCA SWIMAL, potential withdrawal-associated impacts were assessed by evaluating UFA water level changes predicted with the ECFTX

model at the 10-well network associated with the SWIMAL. The respective predictive water level changes between the 2014 RC and 2025, 2030, and 2040 Withdrawals Conditions were added to the SWUCA SWIMAL deficit of -1.1 ft calculated from observed data through 2014 to match the 2014 RC period. The resulting values represented predicted freeboard or deficits for the SWUCA SWIMAL for the three future Withdrawals Conditions and those results are provided below (**Table C-8**).

Ridge Lake Wells (Regulatory Level) in the SWFWMD

As part of the SWUCA Recovery Strategy, applications for groundwater withdrawals are also evaluated to determine whether the proposed withdrawals impact groundwater levels below Lake Wales Ridge lakes, including several lakes where MFLs are not being met.

An analysis was performed to determine if current water levels in the UFA in the Lake Wales Ridge area are above an established target level of 91.5 ft NGVD29 (**Figure C-8**). The target level was established (Section 3.9.2.6.2.2.3, SWFWMD Water Use Permit Applicant’s Handbook, Part B) as the median of the 10-year moving average of water levels during the 1990s for five wells in the Lake Wales Ridge area (**Figure C-4**). The current water level is determined as the recent 10-year moving average from these same five wells.



Note: Bars show mean annual water levels for wells; the dashed-orange horizontal line identifies the target water level elevation of 91.5 ft above NGVD29; and the blue line represents running ten-year mean water levels for the wells through the 2018 value of 93.1 ft above NGVD29. The 2014 condition is used in the evaluation and has a smaller freeboard than the 2017 condition.

Figure C-8. Status of Upper Floridan aquifer levels at wells in the Lake Wales Ridge area of the Southern Water Use Caution Area relative to a regulatory target water level.

The intent for evaluation of this environmental criterion in this 2020 CFWI RWSP groundwater availability assessment was to screen the Withdrawals Conditions scenarios for the potential to reduce UFA water levels below the established Ridge Lake Wells target level. In order to accomplish this, the respective predicted UFA water level change between the 2014 RC and the 2025, 2030, and 2040 Withdrawals Conditions was determined. The water level changes predicted for each respective future Withdrawals Condition were added to the 0.8 ft freeboard value calculated from observed data for the regulatory wells collected through 2014, to match the 2014 RC period. The resulting values represented predicted

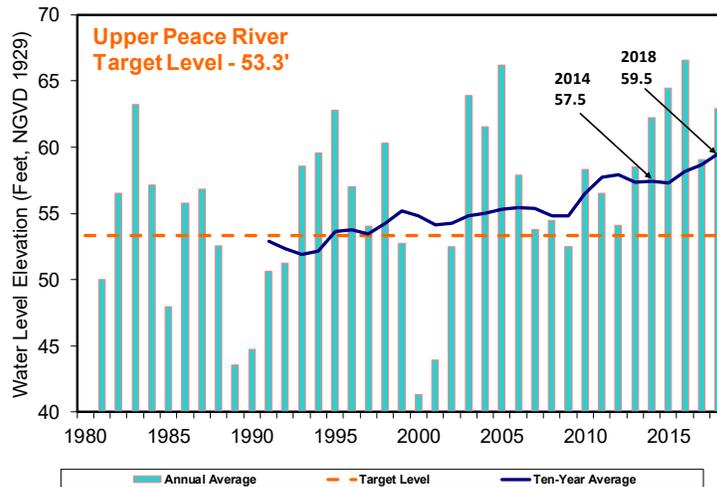
freeboard or deficits for the target wells for the three future Withdrawals Conditions and those results are provided below (**Table C-8**).

Upper Peace River Wells (Regulatory Level) in the SWFWMD

As part of the SWUCA Recovery Strategy, applications for groundwater withdrawals are evaluated to determine whether the proposed withdrawals impact groundwater levels south of the Upper Peace River, where two of three established MFLs are not being met.

An analysis was performed to determine if current water levels in the UFA in the vicinity of the Upper Peace River are above an established target regulatory level. The target level is 53.3 feet NGVD29 (**Figure C-9**) and was established (Section 3.9.2.6.2.2.3, SWFWMD Water Use Permit Applicant’s Handbook, Part B) as the median of the 10-year moving average of water levels during the 1990s for five wells in the region (ROMP 30, ROMP 31, ROMP 45, ROMP 59, and ROMP 60). The current water level is determined as the recent 10-year moving average from these same five wells.

The intent for evaluation of this environmental criterion in CFWI Planning Area groundwater availability assessments was to screen Withdrawal Conditions for the potential to reduce UFA water levels below the established Upper Peace River target level. In order to accomplish this evaluation, the respective predicted UFA water level change between the 2014 RC and the 2025, 2030, and 2040 Withdrawals Conditions was determined. The predicted water level changes determined for each respective future Withdrawals Conditions were added to the 4.2 ft freeboard value calculated from observed data for the regulatory wells collected through 2014, to match the 2014 RC period. The resulting values represented predicted freeboard or deficit for the target wells for the three future Withdrawals Conditions and those results are provided below (**Table C-8**).



Note: Bars show mean annual water levels for; the dashed-orange horizontal line identifies the target water level elevation of 53.3 ft above NGVD29; and the blue line represents running ten-year mean water levels for the wells through the 2018 value of 59.5 ft above NGVD29. The 2014 value of 57.5 ft above NGVD29 is used to determine the freeboard for the analysis.

Figure C-9. Status of Upper Floridan aquifer levels at wells in the Upper Peace River area of the Southern Water Use Caution Area relative to a regulatory target water level.

2014 REFERENCE CONDITION RESULTS

The 2014 RC was used to establish “reference” water levels or flows for calculating projected changes in water levels or flows in response to changes in future groundwater withdrawals. Results of the different Withdrawals Conditions were compared to the 2014 RC to estimate changes due to projected withdrawals.

Twenty-eight of the 39 MFLs and MFL-related environmental criteria evaluated for the 2014 RC were predicted to be met (i.e., exhibited freeboard values greater than or equal to zero; **Tables C-8 and C-9**). Eleven criteria, including MFLs established for eight lakes (Lake Aurora, Crooked Lake, Eagle Lake, Easy Lake, Lake Eva, Lake McLeod, Lake Starr, and Lake Wailes), two springs (Palm Springs and Starbuck Springs) and the adopted SWUCA SWIMAL were predicted to not be met under the 2014 RC (**Figure C-10**).

Two MFL-related environmental criteria were evaluated, the Ridge Lakes regulatory wells and the Upper Peace River regulatory wells. Under the 2014 RC, target water levels for the Ridge Lakes regulatory wells and the Upper Peace River regulatory wells were predicted to be met (**Tables C-8 and C-9; Figure C-10**).

Table C-8. Summary results for MFLs and MFL-related environmental criteria predicted for the modeled 2014 Reference Condition and 2025, 2030, and 2040 Withdrawals Conditions assessed with the ECCTX model.

Map Grid ^a	Water Body/ Regulatory Well Target Name	2014 Reference Condition Status ^b	2014 Reference Condition Freeboard or Deficit ^c	2025 Withdrawals Condition Status ^b	2025 Withdrawals Condition Freeboard or Deficit ^c	2030 Withdrawals Condition Status ^b	2030 Withdrawals Condition Freeboard or Deficit ^c	2040 Withdrawals Condition Status ^b	2040 Withdrawals Condition Freeboard or Deficit ^c
Adopted Lake and Wetland MFLs									
C-4	Aurora, Lake	Not Met (R)	-0.1	Not Met (R)	-0.1	Not Met (R)	-0.2	Not Met (R)	-0.2
B-3	Boggy Marsh	Met	1.2	Met	0.6	Met	0.5	Met	0.5
C-2	Brantley, Lake	Met	1.8	Met	1.0	Met	0.8	Met	0.4
D-2	Burkett, Lake	Met	NSFAC	Met	NSFAC	Met	NSFAC	Met	NSFAC
B-2	Cherry Lake	Met	0.4	Met	0.5	Met	0.3	Met	0.3
C-4	Crooked Lake	Not Met (R)	-2.3	Not Met (R)	-2.7	Not Met (R)	-2.7	Not Met (R)	-2.8
B-4	Eagle Lake	Not Met (R)	-6.4	Not Met (R)	-8.5	Not Met (R)	-8.9	Not Met (R)	-9.3
C-4	Easy, Lake	Not Met (R)	-1.6	Not Met (R)	-1.9	Not Met (R)	-2.0	Not Met (R)	-2.2
B-2	Emma, Lake	Met	1.3	Met	2.0	Met	1.8	Met	1.7
B-3	Eva, Lake	Not Met (R)	-1.9	Not Met (R)	-1.8	Not Met (R)	-2.1	Not Met (R)	-2.8
B-4	Hancock, Lake	Met	NSFAC	Met	NSFAC	Met	NSFAC	Met	NSFAC
D-2	Howell, Lake	Met	NSFAC	Met	NSFAC	Met	NSFAC	Met	NSFAC
D-2	Irma, Lake	Met	NSFAC	Met	NSFAC	Met	NSFAC	Met	NSFAC
B-2	Louisa, Lake	Met	1.8	Met	1.0	Met	0.9	Met	0.8
B-3	Lowery, Lake	Met	10.3	Met	10.1	Met	9.9	Met	9.6
B-2	Lucy, Lake	Met	1.3	Met	1.7	Met	1.5	Met	1.4
D-2	Martha, Lake	Met	NSFAC	Met	NSFAC	Met	NSFAC	Met	NSFAC
B-4	McLeod, Lake	Not Met (R)	-6.6	Not Met (R)	-8.5	Not Met (R)	-8.9	Not Met (R)	-9.3
D-2	Mills Lake	Met	1.8	Met	1.2	Met	1.1	Met	0.7
B-2	Minneola, Lake	Met	2.3	Met	2.1	Met	1.9	Met	1.7
B-2	North Lake Apshawa	Met	0.9	Met	0.7	Met	0.5	Met	0.3
A-4	Parker, Lake	Met	NSFAC	Met	NSFAC	Met	NSFAC	Met	NSFAC
D-2	Pearl, Lake	Met	NSFAC	Met	NSFAC	Met	NSFAC	Met	NSFAC
B-2	Pine Island Lake	Met	1.9	Met	1.7	Met	1.5	Met	1.4
C-2	Prevatt Lake ^d	Met	0.9	Met	0.3	Met	0.1	Not Met (P)	-0.2
B-2	South Lake Apshawa ^d	Met	0.9	Met	0.7	Met	0.5	Met	0.2
C-4	Starr, Lake	Not Met (R)	-1.5	Not Met (R)	-1.7	Not Met (R)	-1.8	Not Met (R)	-2.1
C-1	Sylvan Lake ^d	Met	1.0	Met	0.7	Met	0.6	Met	0.2
C-4	Wailles, Lake	Not Met (R)	-0.9	Not Met (R)	-1.4	Not Met (R)	-1.6	Not Met (R)	-1.9

Table C-8. Summary results for MFLs and MFL-related environmental criteria predicted for the modeled 2014 Reference Condition and 2025, 2030, and 2040 Withdrawals Conditions assessed with the ECFTX model (continued).

Map Grid ^a	Water Body/ Regulatory Well Target Name	2014 Reference Condition Status ^b	2014 Reference Condition Freeboard or Deficit ^c	2025 Withdrawals Condition Status ^b	2025 Withdrawals Condition Freeboard or Deficit ^c	2030 Withdrawals Condition Status ^b	2030 Withdrawals Condition Freeboard or Deficit ^c	2040 Withdrawals Condition Status ^b	2040 Withdrawals Condition Freeboard or Deficit ^c
Adopted River MFLs									
C-1	Wekiva River at State Road 46 ^d	Met	6.2	Met	0.3	Not Met (P)	-1.4	Not Met (P)	-3.9
Adopted Spring MFLs									
C-2	Miami Springs ^e	Met	1.0	Met	0.8	Met	0.8	Met	0.7
C-2	Palm Springs ^e	Not Met (R)	-1.9	Not Met (R)	-2.2	Not Met (R)	-2.2	Not Met (R)	-2.4
C-1	Rock Springs ^e	Met	2.2	Met	0.8	Met	0.3	Not Met (P)	-0.3
C-2	Sanlando Springs ^e	Met	3.6	Met	2.4	Met	2.1	Met	1.6
C-2	Starbuck Spring ^e	Not Met (R)	-0.1	Not Met (R)	-0.7	Not Met (R)	-0.8	Not Met (R)	-1.0
C-2	Wekiwa Springs ^d	Met	1.8	Met	0.2	Not Met (P)	-0.2	Not Met (P)	-0.9
Adopted Aquifer MFLs									
A-5	SWUCA Saltwater Intrusion Minimum Aquifer Level ^e	Not Met (R)	-1.1	Not Met (R)	-2.3	Not Met (R)	-2.6	Not Met (R)	-2.8
Regulatory Wells									
Figure C-3	Ridge Lakes Regulatory Wells ^g	Met	0.8	Met	0.4	Met	0.4	Met	0.2
	Upper Peace River Regulatory Wells ^g	Met	4.2	Met	2.1	Met	1.3	Met	1.5

NSFAC: No significant Floridan aquifer connection; so, freeboard/deficit values were not determined.

^aMap grid refers to **Figure C-1**, except for the Ridge Lake and Upper Peace River Regulatory Wells, which are shown in **Figure C-4**.

^bStatus addresses whether environmental criteria are met based on predicted freeboard or deficit values; Met if freeboard ≥ 0 , i.e., if a occurs. (R) or (P) designations in the status columns respectively denote predicted recovery or prevention status for MFLs and MFL-related environmental criteria; recovery means Not Met for all three scenarios, while prevention means Not Met only for the 2030 Withdrawals Condition and/or 2040 Withdrawals Condition.

^cFreeboard and deficit (i.e., negative freeboard) values expressed as change in Upper Florida aquifer level in feet or change in cubic feet per second (springs and rivers) that would be associated with a change in status for the MFLs and MFL-related environmental criteria.

^dScheduled for reevaluation.

^eAlthough minimum spring flows were set primarily to cumulatively maintain minimum flows in the Wekiva River System, the assumption was also made that these flows would be sufficient to protect the ecology of individual springs.

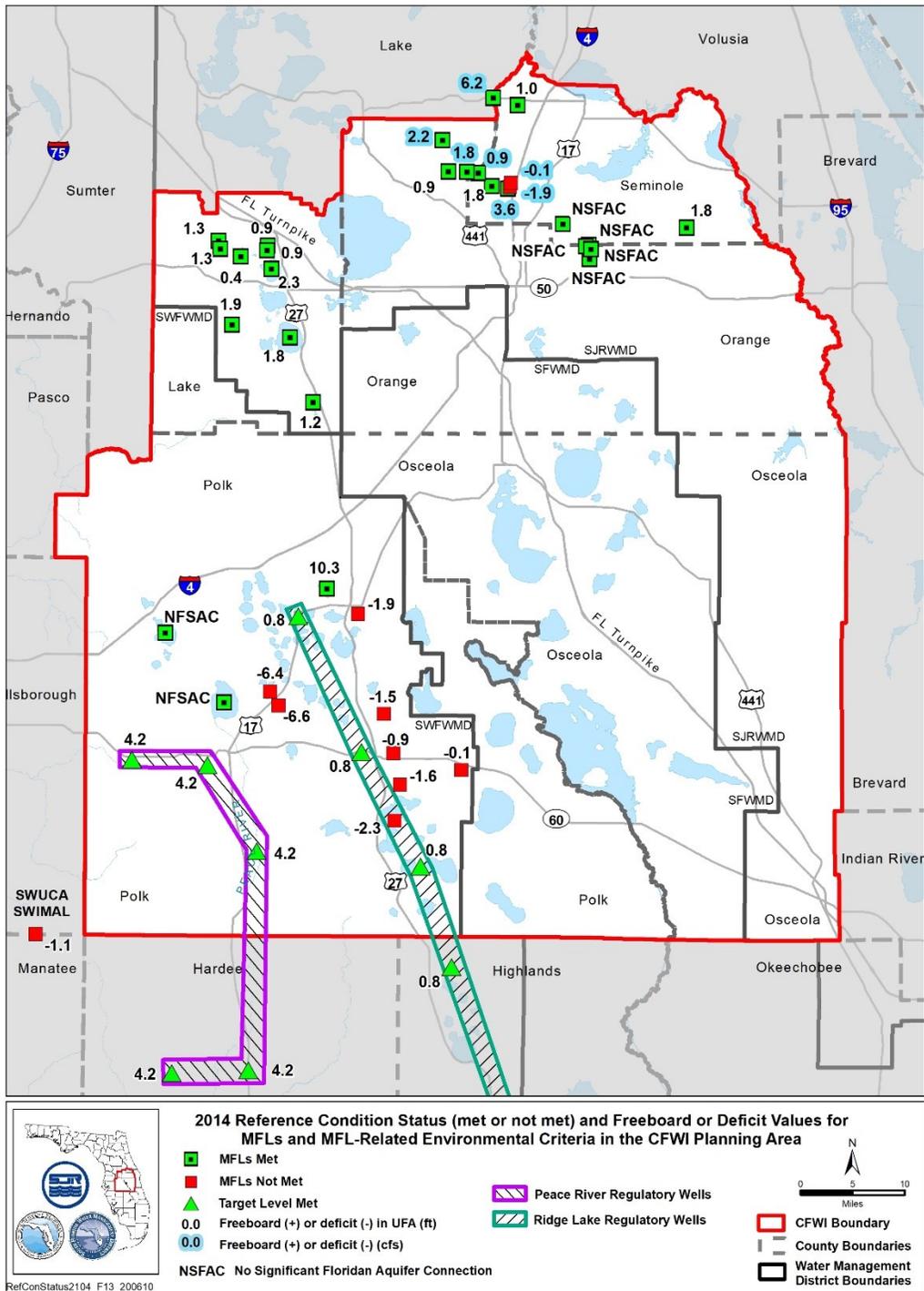
^fWell sites associated with the adopted Southern Water Use Caution Area (SWUCA) Saltwater Intrusion Minimum Aquifer Level are outside of the CFWI Planning Area, but groundwater withdrawals within the CFWI Planning Area may affect water levels in the wells.

⁸Some established Ridge Lakes and Upper Peace River regulatory wells associated the SWUCA recovery strategy are outside of the CFWI Planning Area, but groundwater withdrawals within the CFWI Planning Area may affect water levels in the wells.

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Table C-9. Predicted summary results for MFLs and MFL-related environmental criteria identified for the 2014 Reference Condition and 2025, 2030, and 2040 Withdrawals Conditions assessed with the ECCTX model (MFL status varies from the STAR report).

MFLs and MFL-Related Environmental Criteria	ECCTX model Withdrawals Condition			
	2014 Reference Condition	2025 Withdrawals Condition	2030 Withdrawals Condition	2040 Withdrawals Condition
Number Met	28	28	26	24
Number Not Met	11	11	13	15



Note: Freeboard and deficit values expressed in feet (non-highlighted values) or cubic feet per second (highlighted values), with NSFAC indicating freeboard or deficit was not established due to no significant aquifer connection at the site.

Figure C-10. 2014 Reference Condition status (met or not met) and freeboard or deficit values for MFLs and MFL-related environmental criteria assessed.

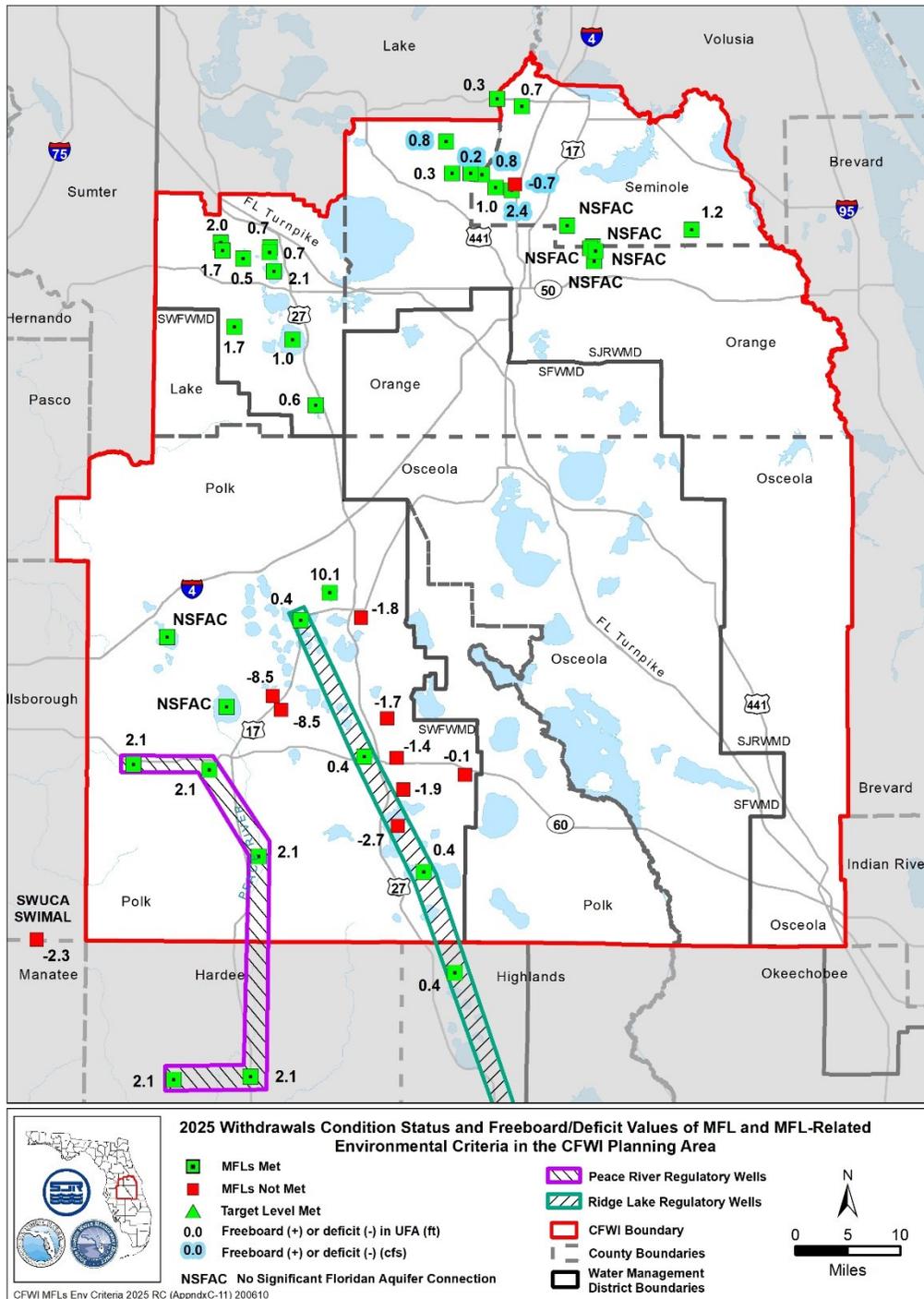
RESULTS OF FUTURE SCENARIOS

The 2025, 2030, and 2040 Withdrawals Conditions results were each compared to water levels or flows relative to the 2014 RC for evaluation of withdrawal related effects. Based on modeling results and assessments, changes in status were predicted for some of the 39 environmental criteria that were associated with the increased groundwater withdrawal rates associated with the 2030 or 2040 Withdrawals Conditions. These changes included differences in the status (i.e., met or not met) of some criteria and differences in freeboard or deficits for most criteria.

2025 Withdrawals Condition Results

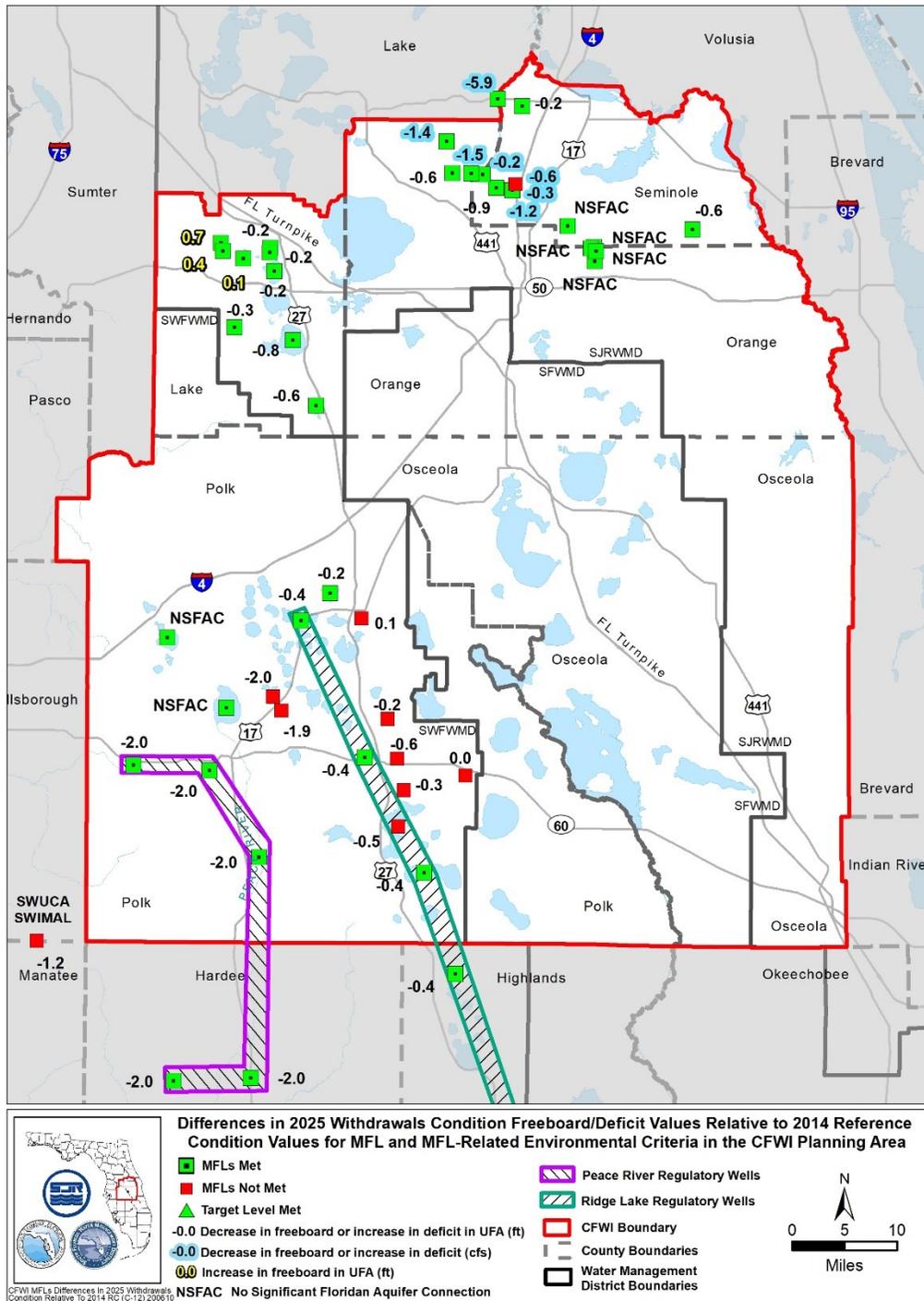
The status of the 28 MFLs and MFL-related environmental criteria that were predicted to be met and the 11 criteria that were predicted to not be met under the 2014 RC did not change under the 2025 Withdrawals Condition (**Tables C-8 and C-9; Figure C-11**), despite increased demand.

Although status was predicted to not change for any of the MFLs and MFL-related criteria between the 2014 RC and the 2025 Withdrawals Condition, most of the assessed criteria exhibited a predicted decrease in freeboard or an increase in deficit (**Table C-8; Figure C-12**).



Note: Freeboard and deficit values expressed in feet (non-highlighted values) or cubic feet per second (highlighted values), with NSFAC indicating freeboard or deficit was not established due to no significant aquifer connection at the site.

Figure C-11. Predicted 2025 Withdrawals Condition status (met or not met) and freeboard or deficit values for MFLs and MFL-related environmental criteria in the CFWI Planning Area.



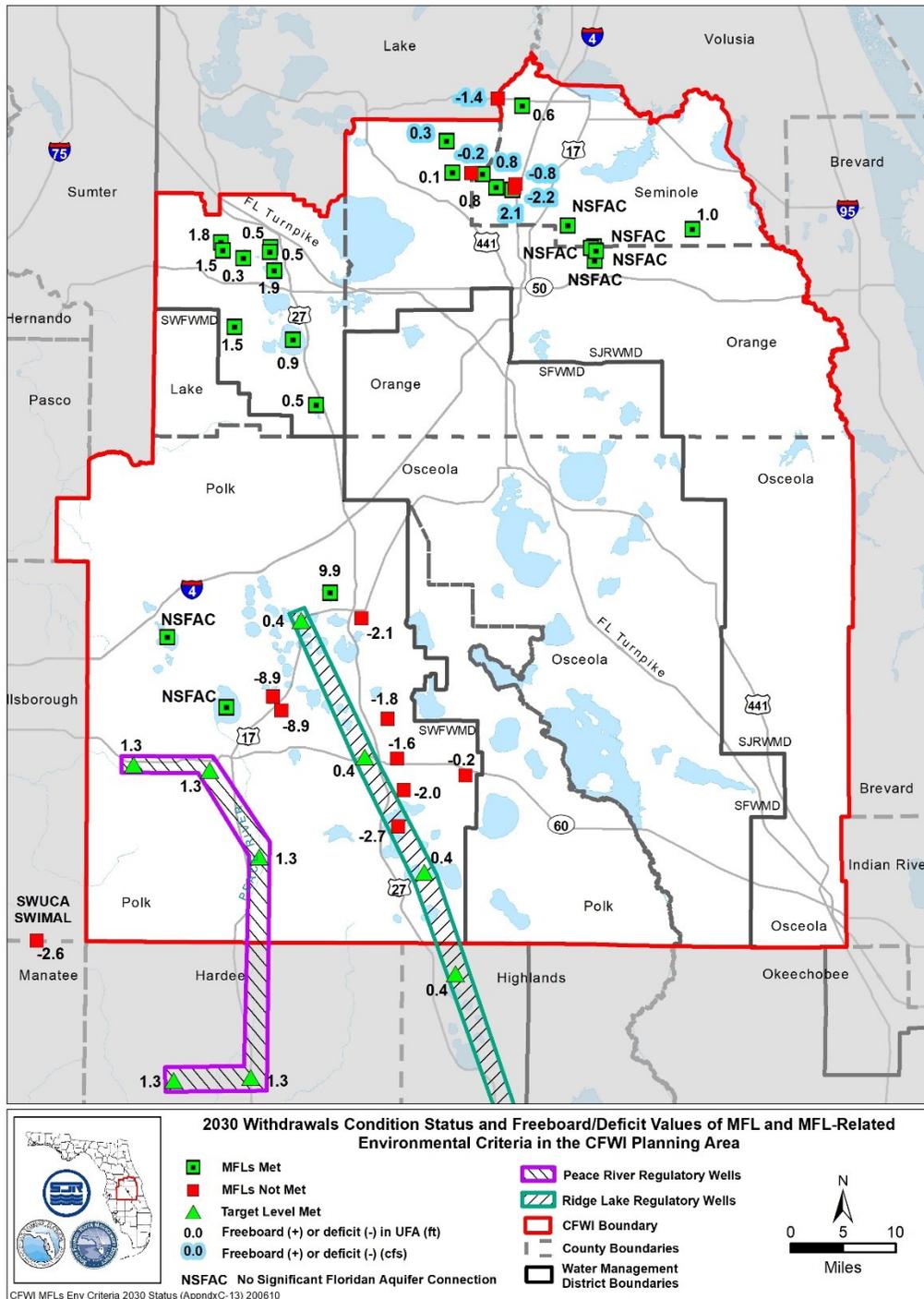
Note: Freeboard and deficit change values expressed in feet (non-highlighted values) or cubic feet per second (highlighted values), with NSFAC indicating freeboard or deficit was not established due to no significant aquifer connection at the site.

Figure C-12. Differences in 2025 Withdrawals Condition freeboard or deficit values for MFL and MFL-related environmental criteria relative to the 2014 Reference Condition in the CFWI Planning Area.

2030 Withdrawals Condition Results

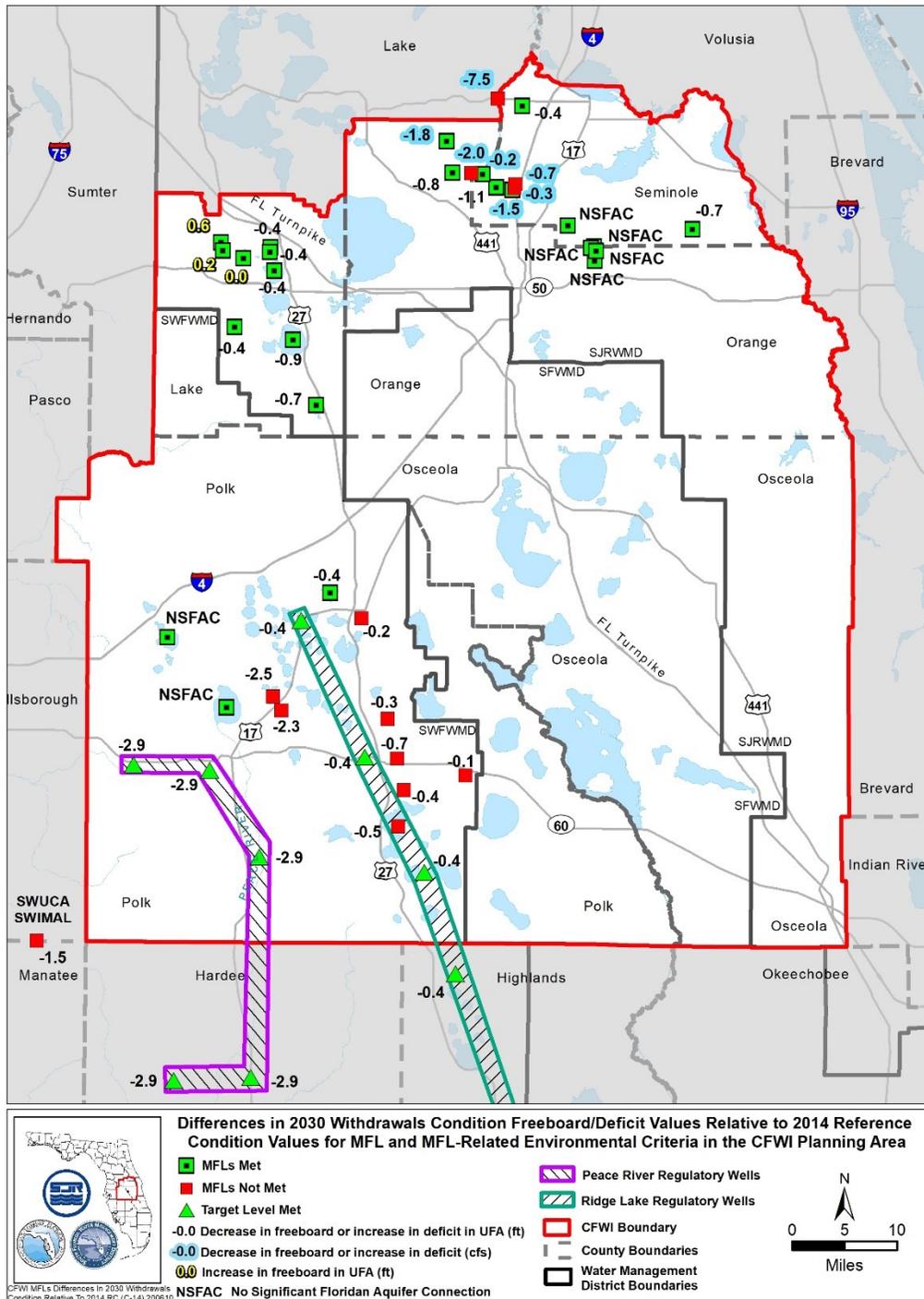
Twenty-six of the 39 MFLs and MFL-related environmental criteria that were predicted to be met under the 2014 RC were also predicted to be met under the 2030 Withdrawals Condition (i.e., exhibited freeboard values greater than or equal to zero). The 13 criteria that were predicted to be not met under the 2030 Withdrawals Condition included the 11 criteria predicted to be not met under the 2014 RC and the MFLs established for the Wekiva River at State Road 46 and Wekiwa Springs (**Tables C-8 and C-9; Figure C-13**).

Although status changed for only two assessed criteria between the 2014 RC and the 2030 Withdrawals Condition, most of the MFLs and MFLs-related criteria exhibited a predicted decrease in freeboard or an increase in deficit (**Table C-8; Figure C-14**).



Note: Freeboard and deficit values expressed in feet (non-highlighted values) or cubic feet per second (highlighted values), with NSFAC indicating freeboard or deficit was not established due to no significant aquifer connection at the site.

Figure C-13. Predicted 2030 Withdrawals Condition status (met or not met) and freeboard or deficit values for MFLs and MFL-related environmental criteria in the CFWI Planning Area.



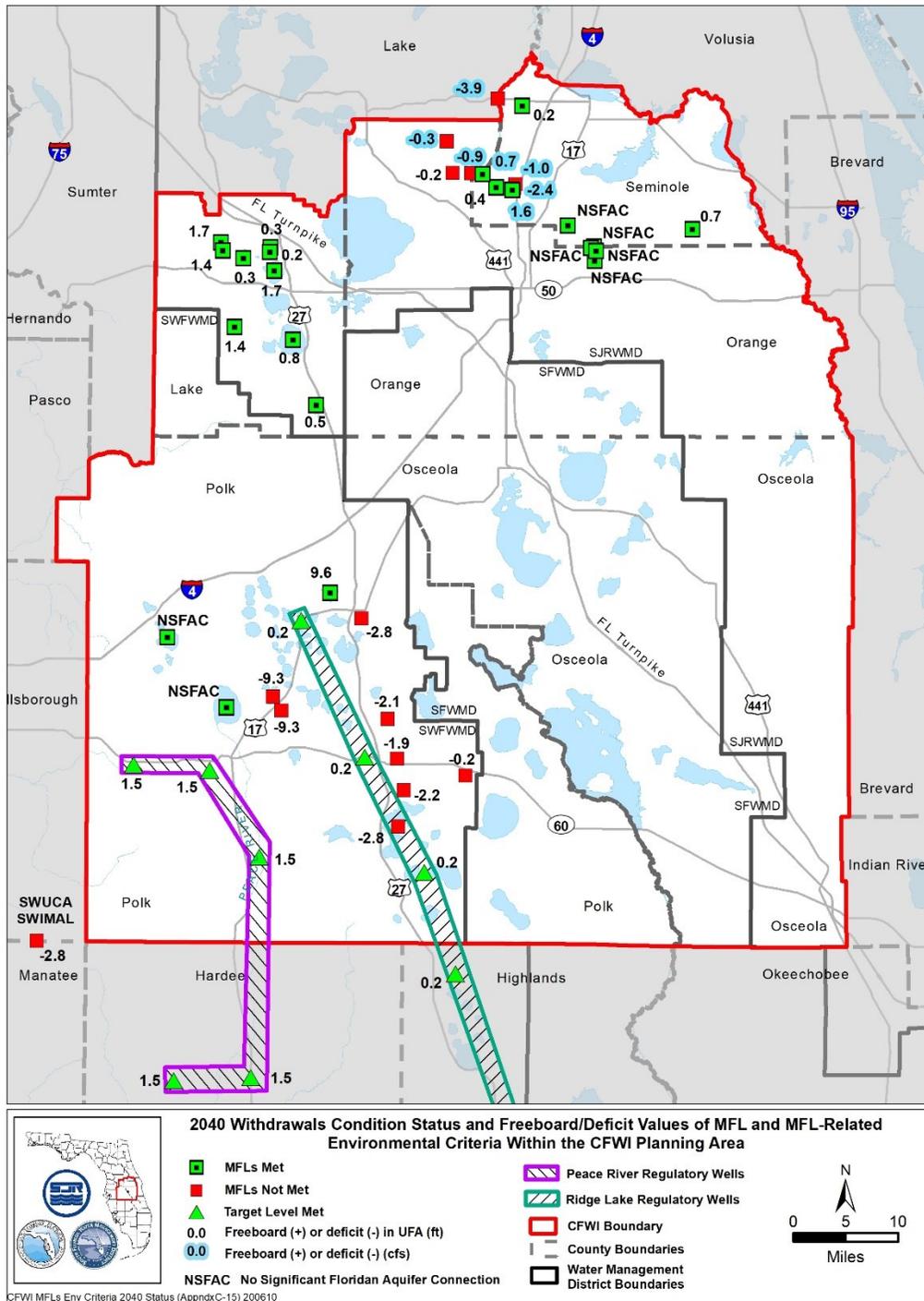
Note: Freeboard and deficit change values expressed in feet (non-highlighted values) or cubic feet per second (highlighted values), with NSFAC indicating freeboard or deficit was not established due to no significant aquifer connection at the site.

Figure C-14. Differences in 2030 Withdrawals Condition Freeboard/Deficit values relative to 2014 Reference Condition values for MFL and MFL-related environmental criteria in the CFWI Planning Area.

2040 Withdrawals Condition Results

Twenty-four of the 39 MFLs and MFL-related environmental criteria that were predicted to be met under the 2014 RC were also predicted to be met under the 2040 Withdrawals Condition (i.e., exhibited freeboard values greater than or equal to zero). The 15 criteria that were predicted to be not met under the 2040 Withdrawals Condition included the 11 criteria predicted to be not met under the 2014 RC, the two additional criteria predicted to be not met under the 2030 Withdrawals Condition, and the MFLs established for the Rock Springs and Lake Prevatt (**Tables C-8 and C-9; Figure C-15**).

Although status changed for only four assessed criteria between the 2014 RC and the 2040 Withdrawals Condition, most of the MFLs and MFLs-related criteria exhibited a predicted decrease in freeboard or an increase in deficit (**Table C-8; Figure C-16**).



Note: Freeboard and deficit values expressed in feet (non-highlighted values) or cubic feet per second (highlighted values), with NSFAC indicating freeboard or deficit was not established due to no significant aquifer connection at the site.

Figure C-15. Predicted 2040 Withdrawals Condition status (met or not met) and freeboard or deficit values for MFLs and MFL-related environmental criteria in the CFWI Planning Area.

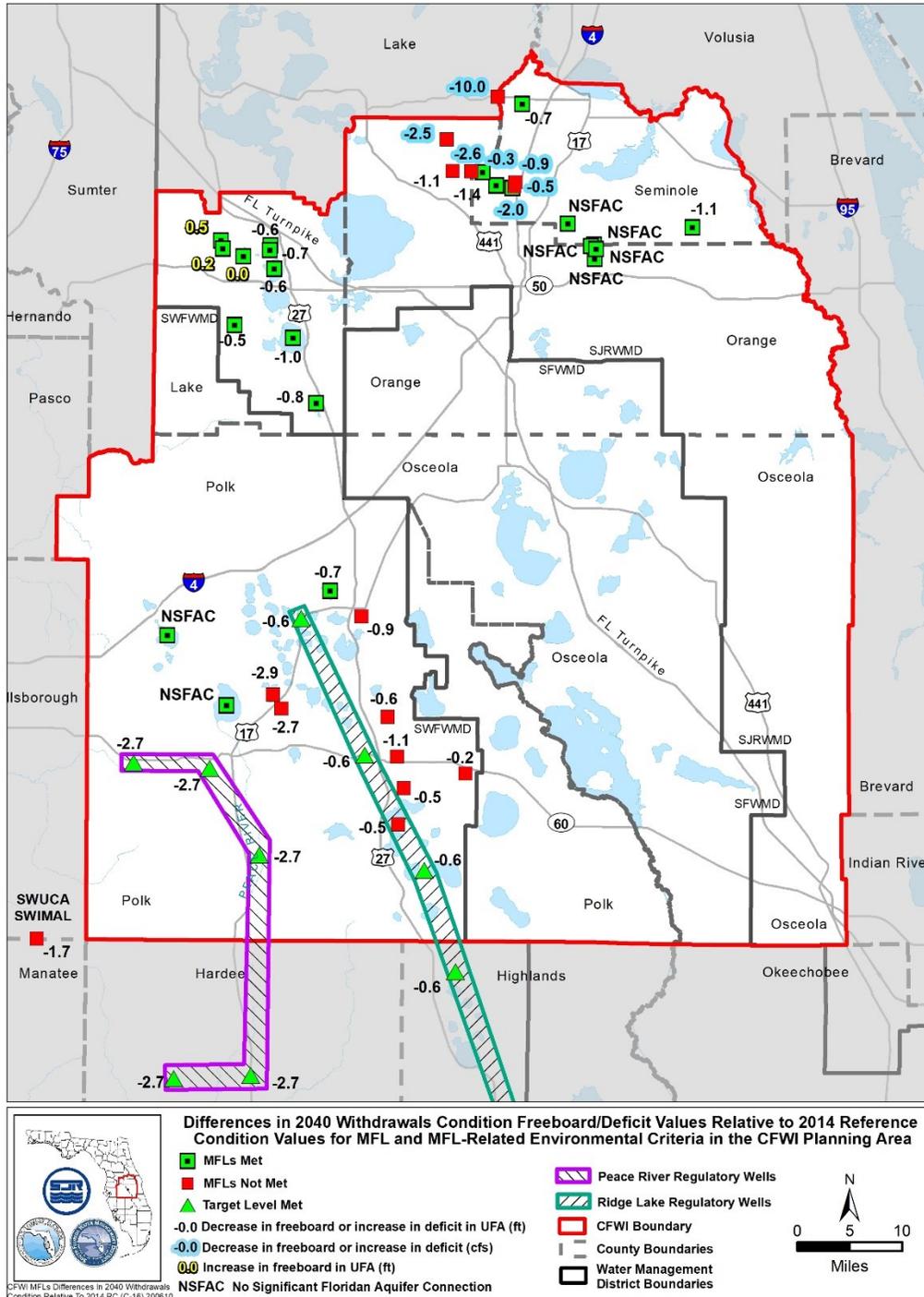


Figure C-16. Differences in 2040 Withdrawals Condition Freeboard/Deficit values relative to 2014 Reference Condition values for MFL and MFL-related environmental criteria in the CFWI Planning Area.

Note: Freeboard and deficit change values expressed in feet (non-highlighted values) or cubic feet per second (highlighted values), with NSFAC indicating freeboard or deficit was not established due to no significant aquifer connection at the site.

Linear Interpolation of ECFTX Results for Selected MFLs Criteria

Based on a predicted change in status from met to not met for Wekiwa Springs and the Wekiva River at State Road 46 between the 2025 Withdrawals Condition and the 2030 Withdrawals Condition, freeboard/deficit values for these criteria were estimated based on linearly-interpolated annual withdrawal rates derived using the withdrawal rates associated with the various ECFTX-modeled scenarios.

Also, based on a predicted change in status from met to “not met” for Rock Springs and Lake Prevatt between the 2030 Withdrawals Condition and the 2040 Withdrawals Condition, available information from the model-derived 2035 Withdrawals Condition was used to predict freeboard/deficit values for these two criteria. Freeboard/deficit values were also predicted for the 2035 Withdrawals Condition for Wekiwa Springs and the Wekiva River at State Road 46.

Results of the linear-interpolation analyses (**Table C-10**) indicated the MFLs for the Wekiva River at State Road 46 were predicted to shift from being met to “not met” at a withdrawal rate in the range of 762 and 770 mgd. Wekiwa Springs was predicted to shift status from being met to “not met” at a withdrawal rate between 779 and 787 mgd. Based on results from the 2030 and 2035 Withdrawals Conditions, the status of Rock Springs and Lake Prevatt was predicted to shift from being met to “not met” at withdrawals between 796 and 825 mgd.

Table C-10. Summary results for linear interpolation of withdrawal rates and predicted freeboard/deficit values for selected MFL environmental criteria based on withdrawal rates and freeboard/deficit values associated with the 2014 Reference Condition and 2025, 2030, 2035, and 2040 Withdrawals Conditions scenarios modeled with the ECFTX model.

Simulated Withdrawal Condition	2014 Reference Condition	2025 Withdrawals Condition	Interpolated Withdrawals Conditions (2026-2029)				2030 Withdrawals Condition	2035 Withdrawals Condition	2040 Withdrawals Condition
			762	770	779	787			
Withdrawal Rate (mgd)	619	753	762	770	779	787	796	825	861
Wekiwa Springs freeboard/deficit (cfs)	1.8	0.2	0.2	0.1	0.0	-0.1	-0.2	-0.6	-0.9
Rock Springs freeboard/deficit (cfs)	2.2	0.8	0.7	0.6	0.5	0.4	0.3	-0.1	-0.3
Wekiva at State Road 46 freeboard/deficit (cfs)	6.2	0.3	0.1	-0.3	-0.7	-1.0	-1.4	-2.8	-3.9
Lake Prevatt freeboard/deficit (UFA, ft)	0.9	0.3	0.3	0.2	0.2	0.1	0.1	-0.1	-0.2

LIMITATIONS IN MFL ASSESSMENTS

The analyses and results presented in this Appendix are based upon the best available data and modeling tools at the time this 2020 CFWI RWSP was developed. Listed below are examples of limitations that could be minimized in future planning efforts.

- ◆ Biological/ecological assessments are based on field observations and known or assumed hydrologic requirements, which are subject to interpretation. As such, methods may vary by system type and water management district.
- ◆ Surface water model budgets are used to link water levels in the surface water feature to groundwater level fluctuations. These models are used for long-term scenarios that do not predict the status of an MFL waterbody at any specific point in time, but rather, estimate long-term change as a result of groundwater elevation changes, such as those associated with groundwater withdrawals. Given the limitations of individual surface water budget models and the groundwater models used to develop surface water model inputs, current and near-term MFL status evaluations based on surface water budget model output are generally considered less uncertain than similarly-derived evaluations based on long-term future conditions.
- ◆ Groundwater models, such as the ECFTX model, are used to evaluate effects of groundwater pumping in isolation. However, increased groundwater pumping is associated with other factors such as changes in land use and drainage that also may affect groundwater levels. Because groundwater withdrawals do not occur in isolation, the ability of models to simulate the influence of groundwater withdrawals alone is difficult to verify. Assumptions and limitations of the ECFTX model can be found in CFWI 2020b.
- ◆ The ECFTX model is a critical part of the MFLs analyses presented in this 2020 CFWI RWSP. Like all groundwater models, the ECFTX model parameters could not be estimated uniquely during model calibration. Because the model results are sensitive

to certain model parameters and assumptions, the results presented in this 2020 CFWI RWSP may change if additional data, tools, and models become available.

- ◆ The MFLs status analyses were performed based on the adopted MFLs. Some of the MFLs are under reevaluation, which, once completed, could result in changes in the MFLs and their status.
- ◆ Limitations of the data used in development and calibration of the hydrologic models identified above and in (CFWI 2020b) suggests a need for continued environmental monitoring, data collection, and model improvements. Additional monitoring can improve accuracy related to information such as subsurface hydrogeologic conditions and the precision of model results. Evaluations of model prediction sensitivity and uncertainty can similarly improve interpretation and use of model results for MFLs development and implementation.

Future efforts associated with development and implementation of MFLs within the CFWI Planning Area will involve routine status assessments and reevaluation of a number of MFLs. The Districts will accomplish these efforts using the best available modeling tool(s) and information.

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Evaluation of Water Resources

PURPOSE AND PROCESS

One of the Guiding Principles of this 2020 Central Florida Water Initiative was to review and update the 2015 CFWI Regional Water Supply Plan (RWSP), as well as to determine the sustainable quantities of traditional groundwater sources available in the CFWI Planning Area that can be used without causing unacceptable harm to the water resources and associated natural systems. The Groundwater Availability Team (GAT) is one of five subteams of the Water Resources Assessment Team (WRAT). In support of this 2020 CFWI RWSP, the following tasks were completed:

- ◆ Reviewed the work products of the Hydrologic Assessment Team (HAT); Environmental Measures Team (EMT); Data, Monitoring, and Investigations Team (DMIT); and Minimum Flows and Minimum Water Levels and Water Reservations Team (MFLRT) to identify if additional information or additional analyses were necessary for the determination of groundwater availability.
- ◆ Identified water resource impact assessment criteria to be used in the development of planning-level estimates of groundwater availability, which included Minimum Flows and Minimum Water Levels (MFLs) and MFLs-related criteria, wetlands and lakes without MFLs, and water quality.
- ◆ Developed performance measures used to determine the acceptable magnitude of hydrologic effect predicted by the East Central Florida Transient Expanded (ECFTX) model.
- ◆ Identified ECFTX modeling scenarios required for the assessment of groundwater availability.
- ◆ Determined and summarized the planning-level groundwater availability.

The methods, tools, and models used by the subteams to conduct their analyses and develop work products are described in this **Appendix**. The results of these model scenarios and analyses were used to estimate the groundwater availability within the CFWI Planning Area.

ANALYTICAL METHODS AND MODELING TOOLS

Hydrologic Assessment

The HAT developed the analytical methods and modeling tools that were used to support other CFWI subteams to:

- ◆ Evaluate the current and future availability of groundwater,
- ◆ Produce model output that can be used by the other subteams to evaluate the effects of groundwater withdrawals on natural systems,
- ◆ Assess future water supply and management strategies,
- ◆ Develop processes to assess the long-term effectiveness of management strategies,
- ◆ Support collaborative water supply planning, and
- ◆ Support future regulatory actions.

East Central Florida Transient Expanded (ECFTX) Model

The ECFTX model simulated groundwater withdrawals and their associated effects on the water resources and natural systems. The ECFTX model is based on the United States Geological Survey (USGS) modular three-dimensional, finite difference computer code commonly known as MODFLOW (Harbaugh 2005). The model area is divided into 1,250-foot by 1,250-foot cells using a grid defined by a series of rows and columns. The model simulates transient groundwater flow in the surficial aquifer system (SAS) and the Floridan aquifer system (FAS) and simulates hydrologic processes, including recharge, runoff, evapotranspiration (ET), lakes, rivers, springs, wetlands, recharge wells, rapid infiltration basins (RIBs), and production wells. The ECFTX model generates two principal types of output for each model cell: computed head (water levels) and water budget components such as groundwater well withdrawals. The water budgets characterize the inflows and outflows for each model cell. Detailed information on the ECFTX model is provided in the ECFTX model documentation (CFWI 2020b).

The ECFTX model was used to predict potential impacts on wetland water levels, lake water levels, spring flows, and groundwater levels in the FAS and SAS caused by current and projected increases in groundwater use. The ECFTX model represents the performance of a real system through a series of mathematical equations, which describe the physical processes that occur in that system; they represent a simplified version of the real world that may be used to predict the behavior of the modeled system under various conditions. Results from ECFTX model scenarios were used to estimate groundwater availability within the CFWI Planning Area.

Model History

The East Central Florida (ECF) steady-state model was originally developed by the St. Johns River Water Management District (SJRWMD) in 2002 (McGurk and Presley, 2002). In 2006, the South Florida Water Management District (SFWMD) converted the ECF model into a transient model, which was then referred to as the East Central Florida Transient (ECFT)

model. The ECFT model underwent an independent peer review in 2007 which included a thorough review of the model and suggested improvements. The USGS was contracted to implement these and other improvements as described by Sepúlveda, et al. (2012). The ECF, ECFT, and the USGS version of the ECFT (USGS-ECFT) models were initiated prior to formal initiation of the CFWI planning effort and did not include the entire CFWI Planning Area.

The USGS delivered the USGS-ECFT model in 2012 and the Districts reviewed the model construction, distribution of input parameters, and model performance and determined that several items needed to be updated for its use in the CFWI efforts. The following model input datasets were improved:

- ◆ The General Head Boundary water level values used for the Upper and Lower Floridan aquifers (UFA and LFA) (Model Layers 3, 5, and 7),
- ◆ Leakance (vertical hydraulic conductivity) values for Model Layer 6, which represents the Middle Semi-Confining Unit between the UFA and LFA,
- ◆ Specific storage,
- ◆ Spring pool elevations (a factor used to calculate spring discharge),
- ◆ Groundwater withdrawal amounts for various categories of water use, and
- ◆ Landscape irrigation using public supply (PS) and reclaimed water.

Upon incorporating the additional data, the performance of the model was improved and then referred to as the HAT-ECFT model. From a performance statistics perspective, the recalibrated HAT-ECFT model was similar to the USGS-ECFT calibration. Recalibration for the full model domain resulted in a slight improvement over the original calibration; however, depending on the model layer or the metric being evaluated, the recalibration results varied from a slight degradation to a slight improvement in the model calibration statistics. The main benefit of the recalibration effort was improvement in the transient response of many of the water levels and flows simulated by the model. A more complete description of the HAT-ECFT model is presented in Appendix C of the 2015 CFWI RWSP (CFWI 2015b).

Conceptual Model

Improvements to the ECFT model were identified and implemented regarding model boundaries, consistency in water use, updated hydrostratigraphic framework, and simplified rainfall-runoff partitioning. The purpose of the updates to the ECFT model was to better represent current and future hydrologic conditions in the CFWI Planning Area to assist in the planning process. The updated model is referred to as the ECFTX model. **Figure D-1** shows the domains of the previous ECFT and current ECFTX models.

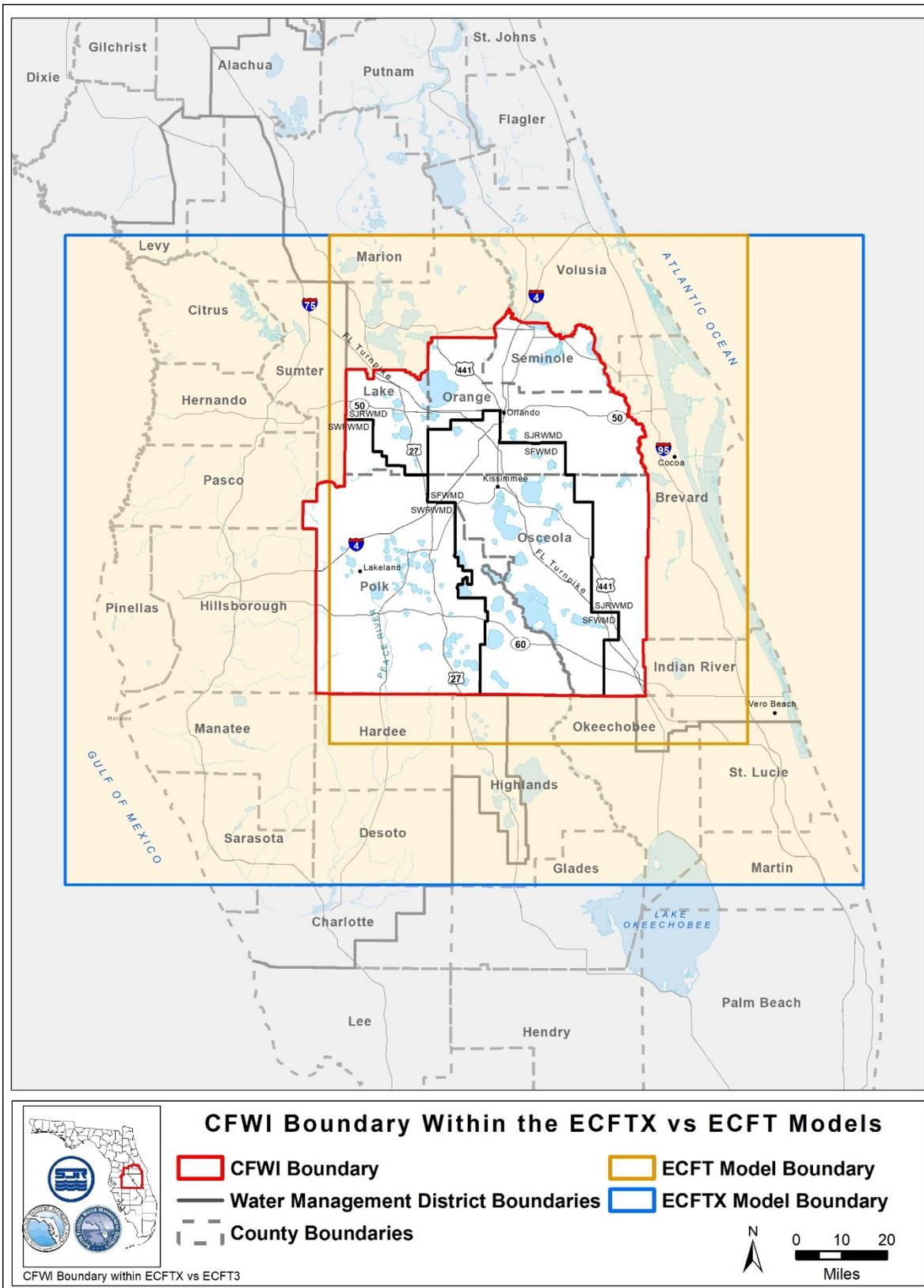


Figure D-1. Model domain boundaries for the ECFT and ECFTX models.

The ECFT model modifications that resulted in the ECFTX model are summarized below:

Model Boundaries – The western and eastern expanded boundaries coincide with hydrologic boundaries (i.e., Gulf of Mexico and Atlantic Ocean), while the southern boundary was extended southward to the Charlotte-DeSoto County line to incorporate groundwater withdrawals in the SFWMD’s Lower Kissimmee Basin that might have an effect on MFL water bodies on the Lake Wales Ridge. The northern boundary stayed the same as in the previous ECFT model.

Water Use – The best estimates of water use were developed, recognizing that each District has varying amounts of metered data above certain thresholds and use classes. In addition, work was conducted to ensure consistency between historical and simulated water use.

Hydrostratigraphic Framework – The model was updated with new well information, which resolved interpretation differences across District boundaries and incorporated additional model layering within the FAS.

Runoff-Infiltration Partitioning – The ECFT model used the Green-Ampt method (Green 1911), suitable for surface water models with short (minutes/hours) time steps. In addition, the MODFLOW Unsaturated-Zone Flow (UZF) package was used to account for the time lag incurred during surface infiltration through thick unsaturated zones. This approach was found to be computationally inefficient and data intensive for a regional groundwater model with 3-day time steps and monthly stress periods. Accordingly, the empirically based National Resources Conservation Service (NRCS) curve number method was used for the ECFTX model, which has been applied successfully in previous regional groundwater modeling efforts (Obeysekera et al. 2018).

Peer Review

Given the scope of the model improvement, it was determined appropriate to convene an independent scientific peer review of the updated ECFTX Model. Three independent groundwater modeling experts were assembled to conduct this review:

- ◆ Pete Andersen, M.S. (Chair), Tetra Tech;
- ◆ Lou Motz, Ph.D., Associate Professor Emeritus (retired), University of Florida; and
- ◆ Mark Stewart, Ph.D., Professor Emeritus (retired), University of South Florida.

Traditionally, peer reviews have been implemented once the model is calibrated and the documentation developed. It was decided that an improved approach was to convene the Peer Review Panel (Panel) early in the model development process. In this way, the Panel could provide early input to minimize the chance that a major model revision would be needed at the conclusion of the project. Towards that end, the Panel was engaged at the conceptual model development phase and throughout calibration and model documentation.

The Panel’s first meeting was held in September 2016. Throughout the model development and peer review process, periodic teleconference calls were conducted to update the Panel on the progress and solicit Panel input. All communication with the Panel was conducted via an electronic web board facilitated by the Southwest Florida Water Management District (SWFWMD) and available to the public. Meeting notices were posted prior to the meetings,

and all documents and correspondence between the Districts and the Panel were conducted via the web board. Summaries for each meeting were similarly posted on the web board.

Major topics discussed included resolving dry cells, baseflow estimation, boundary condition selection, rainfall adjusted Next-Generation Radar (NEXRAD) estimation, calibration approaches (e.g., automated vs. manual), calibration targets and statistical measures of calibration success, and modification of general head boundary fluxes.

Model Development

The ECFTX model is a fully three-dimensional groundwater flow model and uses MODFLOW Newton-Raphson (NWT) (Niswonger et al. 2011) as the computer code. The model uses the North American Vertical Datum of 1988 (NAVD88) for all elevation data. Active and inactive areas of the model layers are delineated. In general, for those areas of the model where total dissolved solids concentrations exceed 10,000 milligrams per liter (mg/l), the layers are populated with appropriate aquifer parameters but are inactivated and general head boundaries are set along the edge of the active areas. The Upstream Weighting (UPW) package associated with MODFLOW NWT was developed to incorporate aquifer layering and parameters. Within the ECFTX model domain, topography was used as the top of Model Layer 1 based on information compiled by each District.

Spatial Discretization

The model domain covers an area from Central Volusia County to the north to the Charlotte-Desoto county line to the south, and from the Atlantic Ocean on the east to the Gulf of Mexico at the west (**Figure D-1**). The model grid is aligned in a north-to-south direction.

The model has 603 rows and 704 columns, with a uniform grid spacing of 1,250 feet (ft) encompassing approximately 23,800 square miles – more than twice the area of the ECFT model. The selection of the grid size was based on the planned use of the model, data availability, and computational considerations. The model coordinates, based on state plane coordinates of NAVD88 Florida East, located at the northeast corner of the model are: X-direction: 24352, Y-direction: 1737103.

Hydrostratigraphic Framework

Vertically, the model includes eleven hydrostratigraphic units as shown in **Figure D-2**. Each of these hydrostratigraphic units is treated as a separate layer in the model.

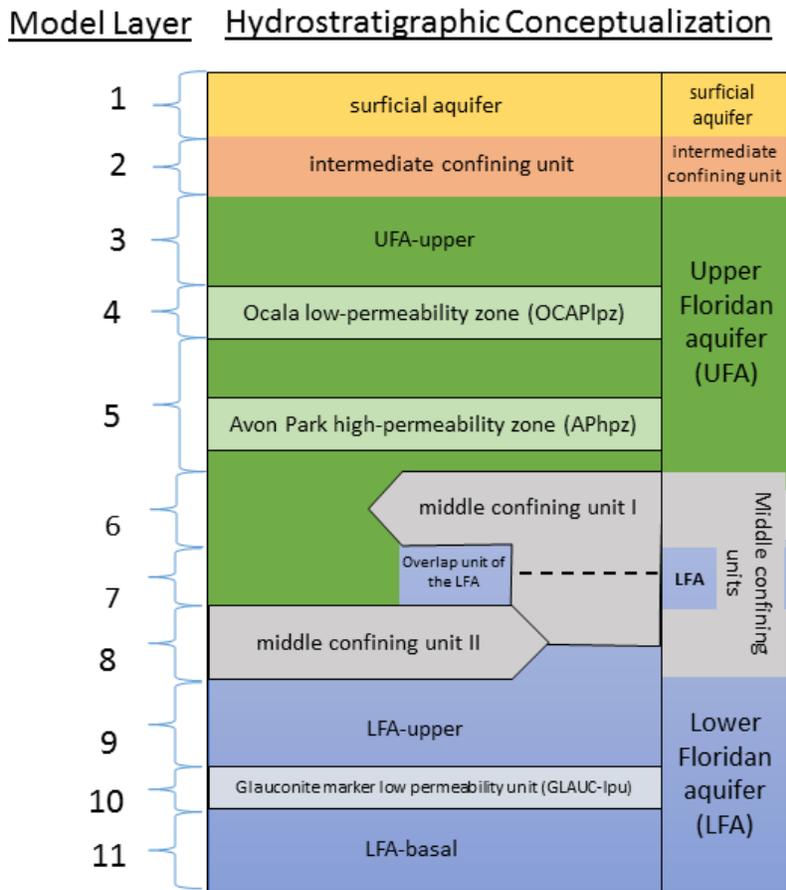


Figure D-2. Hydrostratigraphic conceptualization and associated model layers for the ECFTX model.

Model Input

The collection of data and the assembly of input datasets is one of the most important and time-consuming parts of model development, particularly for a model with a large geographic extent and complex hydrostratigraphy, such as the ECFTX model. Numerous types of hydraulic data are required to develop a numerical model including:

- ◆ Hydraulic conductivities, leakance and storage coefficients,
- ◆ Groundwater withdrawal rates,
- ◆ Recharge and ET rates,
- ◆ Rainfall,
- ◆ Boundary conditions, and
- ◆ Initial conditions.

The first category is directly related to aquifer properties and hydraulic data, while the remaining five represent aquifer stresses and observed conditions. Data collection procedures generally require that data be collected both from within and outside the model

area to define conditions along the model boundaries as accurately as possible. **Table D-1** summarizes the model input data used in the development in the ECFTX model. A more detailed description of the model input data is presented in the ECFTX model documentation (CFWI 2020b).

Table D-1. Model input and calibration criteria for the ECFTX model.

Item	Description
Computer Code	MODFLOW-Newton-Raphson (NWT)
Rows/Columns/Grid Spacing	603 Rows, 704 Columns, 1,250 feet grid spacing (square cells)
Layers	11: Surficial aquifer through Lower Floridan aquifer
Calibration Period/Stress Periods/Verification Period	2003 (steady state, single year), 2004 to 2012 (monthly), 2013 to 2014 (monthly)
Aquifer Parameters	Compiled data into single database, kriged to obtain spatial distribution
Boundaries (Location)	West (Gulf of Mexico), East (Atlantic Ocean), North (Central Volusia County), South (Charlotte/Desoto County Line)
Boundaries (Type)	General head boundaries (GHBs) with equivalent freshwater heads
Boundaries (Stages)	Monthly potentiometric surface maps, linear interpolation between layers via nested well data
Runoff-Infiltration Partitioning	Natural Resources Conservation Service (NRCS) curve number method
Land Use	2004, 2008/2009
Rainfall	Next-Generation Radar (NEXRAD) and adjusted via rain gauge data
Evapotranspiration (ET)	US Geological Survey (USGS) Florida ET database for reference ET or Agricultural Field Scale Irrigation Requirement Scenarios (AFSIRS) [Smajstrla 1990]
Wells	Simulated using WELL package
Rivers	USGS National Hydrography dataset, simulated using River (RIV) package
Lakes	Simulated using RIV package with isolated lakes simulated using high K/high S
Drains	Simulated using Drain (DRN) package
Drainage Wells	Simulated using Drain Return (DRT) package
Springs	Spring pool elevations from field data, simulated using DRN package
Water Use	Historical data via District databases; Agricultural: SWFWMD (metered), SJRWMD (metered/AFSIRS), and SFWMD (AFSIRS)
Return Flow (Model Layer 1)	Public Supply (landscape), Domestic Self Supply (irrigation and septic tank drain fields), Reclaimed water, Rapid Infiltration Basins, Agricultural, Landscape/Recreational/Aesthetic
Initial Conditions	2003 (Steady State)
Calibration	PEST initially, followed by manual, trial-and-error
Calibration Targets	Wells, lakes (water levels), spring flows, structure flows, baseflows (estimates), dry cell/flooded cells
Calibration Criteria	More than 50% of wells with residual < 2.5 ft in CFWI Planning Area portion of model
	More than 80% of wells with residual < 5.0 ft in CFWI Planning Area portion of model
	R-squared for water levels > 0.4 (transient response)
	Root mean square residual for all wells per aquifer < 5.0 ft
	Mean residual for all wells per aquifer < 1.0 ft
	Root mean square residual for all Magnitude 1 and 2 springs < 10% of measured spring flows
	Structure flows: Nash-Sutcliffe: >0.5; R-squared >0.5, Deviation of Volume,15%

Input Datasets

The datasets used to develop and calibrate the ECFTX model include intrinsic aquifer parameters (hydraulic conductivity, specific storage, and leakance), land use, rainfall, ET, unsaturated zone conditions, lake properties, perimeter boundary conditions, spring flows, and streams/rivers/structure operations. In addition, the position of the saline groundwater interface is also not allowed to change between stress periods, although other performance indicators were used in the model to estimate if a particular scenario may potentially induce saltwater movement.

Intrinsic Aquifer Parameters

Intrinsic aquifer parameters describe the physical and hydraulic properties of the sediments and rocks of the aquifers and water contained in the aquifers. The combination of these parameters and water level differences from stresses are used to calculate changes to groundwater flow regimes in response to the stresses. The values of the intrinsic aquifer parameters do not change between stress periods of the scenarios or between the different model scenarios.

Hydrogeologic parameters including transmissivity, hydraulic conductivity, specific yield, specific storage, and leakance, contained in hydrogeologic databases independently maintained by the Districts, were combined into a single database for this effort. These values, corresponding to each of the model layers, were compiled and interpolated using Kriging techniques to spatially assign values to each model cell of a particular layer.

Land Use

Land use is a distribution of pervious and impervious surfaces that are used in separating runoff and infiltration of the total rainfall and irrigation as explained below. The distributions of land use for 2004 and 2008/2009 were used for the ECFTX model.

Rainfall

The spatial and temporal distribution of rainfall between 2003 and 2014 was a hydrologic parameter that influences other variables in the model and was based on NEXRAD radar rainfall data. This time period contains extreme wet (hurricanes of 2004 and 2005) and dry (droughts of 2007 and 2011) conditions. As a result, the approach provides insight to the potential changes of hydrologic conditions to meet projected needs during extreme conditions.

Evapotranspiration

ET is the sum of evaporation from water bodies and transpiration losses from plant systems to the atmosphere. ET causes the largest loss in the water budget in Florida. In general, ET accounts for approximately 70 percent of the rainfall for an average year but can well exceed rainfall during dry periods and for large, open water body systems in central Florida. .

Recharge

Recharge to the FAS is derived primarily from rainfall that falls in the area and can vary dramatically throughout the year. The amount of rainfall available for recharge to the SAS is reduced by runoff and ET. While ET generally accounts for approximately 70 percent of rainfall, the remaining 30 percent either runs off the land into drainage networks, streams, or rivers or percolates into the ground as recharge. Recharge to the FAS within the model domain occurs primarily from downward leakage from the SAS through the ICU into the UFA.

Evapotranspiration/Recharge Methodology

The methodology used to develop ET and recharge to the SAS uses the Agricultural Field Scale Irrigation Requirement Simulations (AFSIRS) model (Smajstrla 1990) together with the United States Department of Agriculture NRCS Curve Number (CN) method for partitioning rainfall and runoff (Restrepo and Giddings 1994). A computer program was written in which the AFSIRS model can calculate daily ET and recharge requirements for different land use polygons, which are then translated into model cell values. The AFSIRS uses time-dependent data, such as rainfall, irrigation return flows, potential evapotranspiration (ET_p), land use, and crop types, and time-independent data, such as drainage basins, soil types, irrigated fractions, and irrigation efficiencies.

Rivers

The USGS National Hydrography Dataset was used to define the rivers and streams included in the model. The MODFLOW River Package (RIV) was used to simulate effects of rivers, streams, canals, and lakes on the groundwater flow system because ECFTX is a regional groundwater model covering a large area that should not be considered, as designed, to accurately simulate surface water flows. Additionally, with the increased size of the model, there was a need to simplify the model to keep it manageable in terms of overall execution and processing time. Physical and hydraulic characteristics were assigned to each model cell where rivers and streams are identified, including reach length, river bottom elevations, and riverbed conductance.

Lakes

The MODFLOW Rivers package was used to simulate lakes. Physical characteristics (e.g., lake-bottom elevations, topography [based on National Elevation Dataset], soils in the lake basin [from NRCS Soil Survey Geographic Database [SSURGO]], and hydraulic characteristics (lakebed conductance, lake stages) were obtained and used to simulate lakes. The MODFLOW Lakes package was considered; however, it was not used as the Rivers package was considered adequate to represent lake hydrology.

Springs

The ECFTX model simulated springs with the MODFLOW Drain Package using estimated spring-pool elevations. In addition, increased hydraulic conductivity near springs was assumed.

Model Boundaries

Model boundaries are required in numerical models to constrain the area of interest and are ideally situated corresponding to the presence of hydrologic boundaries. General-head boundaries (GHBs) are boundary conditions configured to assign aquifer heads outside of the model domain at given locations and the hydrologic characteristics of the aquifer between the model and the locations of the assigned heads. The GHBs are used to effectively extend the hydrologic influence of the model and to buffer the effects of simulating stresses within the model domain without extending the active model domain.

Numerical and geographic information system (GIS) methods were used to estimate a monthly water level surface that was then used as an input to the GHB. For the northern and southern boundaries, heads in the UFA (Model Layer 3) were developed from UFA potentiometric surface maps and supplemented with simulated water levels from existing groundwater models in areas of sparse observed data. Heads in the permeable layers associated with the Avon Park Permeable Zone (APPZ) (Model Layer 5) and LFA layers (Model Layers 7, 9, and 11) were estimated based on observed differences between heads in the UFA and the respective layers. Water levels for the confining layers in the model were based on linear interpolation of boundary heads between the adjacent upper and lower aquifers. Head-dependent flux boundaries were developed using tidal data from the Gulf of Mexico (western) and Atlantic Ocean (eastern) for the SAS, with deeper layers also varied based on tidal data but with a corresponding increase in pressure calculated via equivalent freshwater heads due to each layer's greater depth.

Water Use

The Districts each have separate water use databases that are independently maintained based on information (source, location, depth, water use, etc.) provided by permittees as a condition of their CUP/WUPs. Water use is generally categorized as public supply (PS), agricultural (AG), power generation (PG), commercial/industrial/institutional (CII), landscape/recreational (LR), and domestic self-supply (DSS). This information formed the basis to develop the input files necessary to develop and calibrate the model. A single database was developed for use by the CFWI RWSP Team, as well as the HAT. This ensured consistency between historical and simulated water use.

Due to differences in reporting requirements between the Districts, most AG CUP/WUP withdrawal records are incomplete, and confined to the last several years of the calibration and verification period (2003-2014). Historical withdrawal records are available for the SWFWMD for the entire scenario period but only available from 2005 through 2014 for the SFWMD. In the SJRWMD, historical withdrawal records are available throughout the scenario period but with limited availability; the availability of these data have improved in the SJRWMD in recent years. The determination of irrigation requirements for AG used by each District differs; therefore, the associated data in the respective databases upon which the most appropriate means of simulating these demands differs as well. Because irrigation withdrawals are required for the entire scenario period, the AFSIRS model was used to fill in the missing data periods. The AFSIRS provides a reasonable estimate of daily irrigation requirements based upon observed rainfall and ET rates, crop types, and land use. The Districts' CUP/WUP databases were used to determine the crop type, acreage, irrigation efficiency, and the dates of operation for each user. The information was input to AFSIRS and

irrigation requirements were calculated for each day of the scenario period for each individual CUP/WUP. The demands were then summed into either monthly demands or an average demand over the scenario period.

Return Flow

Return flow is water returned to the SAS (Model Layer 1). The source of this water is either surface or groundwater. For LR and AG irrigation, return flow is water returned to the SAS due to irrigation practices. Septic tank drain fields and reclaimed water are also examples of return flow accounted for in the model. A more detailed discussion of the methodology used for LR irrigation return flow is presented in the ECFTX model Documentation Report (CFWI 2020b).

Aquifer Recharge

Aquifer recharge associated with reclaimed water flows, which was simulated in the model as injection into the SAS (Model Layer 1), is mostly associated with RIB facilities. One exception is reclaimed water flows at Orange County's Northwest Water Reclamation Facility, which includes a substantial wetland treatment system that discharges several million gallons per day (mgd) of reclaimed water to Lake Marden. Another exception is the recharge wells associated with lakes and stormwater management in the Orlando area that serve as stormwater drainage in this urbanized area. These drainage wells are simulated using the MODFLOW Drain Return Package, which conveys the basin runoff to the UFA.

Initial Conditions

A transient groundwater flow model requires the specification of initial conditions. In the case of the ECFTX model, this means defining the head at every active cell for the beginning of the scenario, which is 2003 (steady-state conditions). Establishing initial conditions for the transient model is important from the standpoint of providing reference heads from which changes in head over time will be calculated. These changes are used in the process of evaluating the reasonableness of the model calibration, and as such, it's important that the initial heads are consistent with the aquifer parameters. This ensures that modeled changes in heads are in response to changes in modeled stresses and not in response to inconsistent aquifer parameters.

Calibration and Verification

Calibration represents the culmination of model parameter and input data adjustments for the scenario results to match measured and calculated field conditions, such as aquifer water levels, spring flows, aquifer flows, and water budget. The calibration period is intended to represent the hydrologic conditions from 2003 through 2012. The calibration process is preceded by identifying calibration goals describing reasonable tolerance limits for the goodness of fit of the scenario results to the measured and calculated field conditions. In the case of a transient groundwater flow model, the comparisons are made spatially and temporally. Multiple adjustments to aquifer hydraulic property types and values and to water recharge-related and discharge-related inputs are made during calibration in a focused, trial-and-error process until the scenario results reasonably match the calibration goals. Model verification is the process of running the calibrated model through a different set of

conditions than in the calibration, in this case: 2013 to 2014. The resulting calibrated model is then used to simulate historic and future aquifer conditions within the limits of calibration and model construction.

The MODFLOW model is not a coupled groundwater/surface water model; therefore, these interactions are modeled through use of iterative techniques. Surface and groundwater interaction primarily occur through ET/recharge and surface water features (lakes and canals) interaction with aquifers. The associated parameters were calibrated manually through an iterative process.

Calibration Criteria

Statistical calibration goals for the ECFTX model were based on comparing modeled to measured values for water levels in monitor wells, spring flows, and structure flows. Model performance statistics were calculated by first finding the differences between the measured and modeled values (referred to as the residuals) and then assessing the result against the metric by either direct comparison or by calculating statistics on the residuals.

The calibration goals for water levels at monitor wells in the CFWI Planning Area portion of the model domain were:

- ◆ More than 50 percent of wells with a residual less than or equal to 2.5 ft in absolute value,
- ◆ More than 80 percent of wells with a residual less than or equal to 5 ft in absolute value,

The calibration goals for water levels at monitor wells in the model domain were:

- ◆ A root-mean-square-residual (RMSR) for all wells per aquifer of less than 5 ft,
- ◆ An R-squared for the water levels > 0.4 (transient response),
- ◆ A mean residual for all wells in the model domain per aquifer < 1.0 ft, and
- ◆ An overall mean absolute residual within 5 percent of the total head elevation range for each aquifer.

The calibration goals for the spring flows were:

- ◆ Simulated mean spring flow for each Magnitude 1 and Magnitude 2 spring with continuous observations less than 10 percent of the mean average of the observed flow over the calibration period, and
- ◆ Total modeled spring flow less than 10 percent of the average of the measured spring flows.

The calibration goals for the structure flows were:

- ◆ Nash-Sutcliffe > 0.5,
- ◆ R-squared > 0.5, and
- ◆ Deviation of Volume < 15 percent.

Calibration Results

Table D-2 shows the water level calibration statistics of the target monitor wells for the ECFTX model, **Table D-3** shows the springs calibration information, and **Table D-4** shows the structure flow calibration information. The ECFTX model met all statistical calibration criteria. A more detailed description of the calibration process and results is presented in the ECFTX Model documentation (CFWI 2020b).

Table D-2. Calibration statistics of the target monitor wells in the ECFTX and CFWI Planning Area domains.

Calibration Statistics	ECFTX Domain			CFWI Planning Area Domain		
	SA	UFA	LFA	SA	UFA	LFA
Residual Mean	-0.46	0.46	0.46	-0.64	0.34	1.23
Error Standard Dev	4.24	4.70	3.33	3.47	3.75	2.68
5% of Observation Range	8.97	7.59	2.79	8.60	6.20	2.62
Absolute Residual Mean	2.83	3.78	2.65	2.61	3.24	2.48
Error Sum of Squares	18156	20666	329	3442	2729	202
RMS Error	4.27	4.72	3.31	3.53	3.75	2.9
Minimum Residual	-31.65	-22.1	-10.19	-16.51	-11.93	-5.46
Maximum Residual	21.15	19.14	5.73	13.29	10.11	5.73
Number of Observations	997	928	30	277	194	24
Percentage with MAE < 2.5 ft	68%	48%	60%	71%	52%	58%
Percentage with MAE < 5.0 ft	88%	76%	87%	87%	85%	88%
Percentage with R2 > 0.4	78%	93%	93%	78%	96%	92%

Notes: SA = surficial aquifer, UFA = Upper Floridan aquifer, LFA = Lower Floridan aquifer, RMS = Root Mean Square, MAE = Mean Absolute Error. All values in feet except as noted. Calibration period is 2004-2012.

Table D-3. Calibration statistics of the target springs simulated in the ECFTX model.

Spring Name	Observation Flux (cfs)	Calibration Flux (cfs)	Calibration Error
Lithia Spring Major	34.7	33.2	-4.4%
Buckhorn Main Springs	12.2	12.1	-0.9%
Sulphur Spring (Hillsborough)	34.7	35.4	2.0%
Crystal Main Springs (Pasco)	45.5	46.4	2.0%
Weeki Wachee Spring	160.4	167.3	4.3%
Chassahowitzka Spring Main	59.6	59.3	-0.6%
Homosassa Spring #1	83.5	84.5	1.2%
Gum Spring Main	63.8	64.8	1.5%
Rainbow Spring #1	71.8	73.3	2.0%
Apopka Spring	24.9	24.8	-0.1%
Sanlando Springs	18.8	19.9	5.6%
Starbuck Spring	12.1	12.6	4.0%
Wekiwa Springs (Orange)	61.0	64.6	5.8%
Bugg Spring (Lake)	10.6	9.7	-8.5%
Rock Springs (Orange)	54.9	51.6	-6.0%
Volusia Blue Spring	143.6	132.4	-7.8%
Alexander Spring	100.1	98.9	-1.2%

cfs = cubic feet per second

Table D-4. Calibration statistics of the structure flows (in cubic feet per second) simulated in the ECFTX model.

Basin ID	Basin Name	Runoff 12-yr		Baseflow 12-yr		Total Flow 12-yr		Total Flow Statistics		
		Est	Sim	Est	Sim	Obs	Sim	DV (%)	NS	RSME
5	Reedy Creek Watershed	56.9	76.3	6.3	14.2	63.2	90.6	-42.3	0.17	0.59
28	Shingle Creek Watershed	157.9	120.0	52.7	24.4	210.5	144.4	32.3	0.47	0.58
29	Lake Toho Watershed	211.3	92.1	-52.7	2.9	158.6	95.0	41.2	0.15	0.22
31	Alligator Lake-Lake Gentry-Lonesome Camp Swamp Watershed	104.6	119.3	11.6	3.9	116.2	123.3	-6.2	0.57	0.61
33	Lake Arbuckle Watershed	167.9	173.3	62.0	133.3	229.9	306.6	-29.5	0.24	0.67
48	Upper Bay Swamp-Upper Harney Pond Canal Watershed	208.4	89.1	0.0	122.9	208.4	212.0	0.3	0.50	0.51
50	Lower Canal C-41A Watershed	39.9	27.9	0.0	32.3	39.9	60.2	-43.8	0.72	0.83
55	Cypress Creek-C23 Watershed	138.7	106.3	1.0	69.5	139.7	175.9	-12.6	0.78	0.79
62	Boggy Creek Watershed	74.4	69.0	11.4	34.2	85.8	103.2	-14.9	0.75	0.79
80	C-24 Cow Creek Rim Canal Watershed	174.9	166.0	0.0	29.2	174.9	195.1	-11.5	0.77	0.78
81	C-25 West Blecher Canal Watershed	193.9	181.6	0.0	20.8	193.9	202.3	-4.3	0.78	0.78
3	Triplet Lake Watershed	13.4	9.7	2.0	17.2	15.4	26.9	-76.1	-0.55	0.63
7	Wekiva River Watershed	99.6	66.0	168.4	130.5	268.0	196.5	-56.5	-5.38	0.49
9	North Branch of Crab Grass Creek Watershed	25.0	23.4	0.0	10.4	25.0	33.8	-37.0	0.56	0.60
10	Wolf Creek Watershed	28.7	24.6	0.7	17.4	29.4	42.0	-44.6	0.66	0.73
11	Bird Lake+Halfway Lake-St. Johns River	131.9	147.8	59.8	62.5	191.7	210.3	-10.9	0.30	0.33
12	South Fork of Taylor Creek+Taylor Creek-St. Johns River	42.7	37.9	1.4	21.2	44.1	59.1	-36.8	0.68	0.74
13	South Prong of St. Sebastian River	48.8	35.6	0.0	47.5	48.8	83.0	-70.6	0.16	0.75
20	Sixmile Creek Watershed	25.4	20.9	0.7	4.8	26.0	25.7	0.6	0.48	0.50
21	Econolockhatchee River Watershed	392.9	244.0	157.9	447.4	550.8	691.5	-26.8	0.12	0.63
24	Lake Dorr+Lake Norris+Lake Tracy-Upper Blackwater Creek Watershed	40.7	12.3	15.6	97.3	56.2	109.5	-98.4	-2.22	0.59
25	Soldier Creek Watershed	10.6	10.8	1.6	12.9	12.2	23.8	-95.5	-0.39	0.77
27	Bear Gully Lake+Howell Creek Watershed	47.7	30.2	16.2	52.8	63.9	83.0	-30.9	0.71	0.82
58	Turnbull Creek Watershed	21.2	4.4	0.4	18.3	21.6	22.6	-2.1	0.51	0.51
6	Lake Ariana+Lake Hancock+Lake Parker Watershed	26.4	1.3	20.5	31.4	46.9	32.7	28.1	0.50	0.64
17	Payne Creek Watershed	94.6	85.1	17.0	51.5	111.6	136.7	-23.5	0.64	0.71
34	Hawthorn Creek+Lower Joshua Creek Watershed	104.9	83.2	13.9	65.5	118.8	148.7	-23.9	0.82	0.85
35	Maple Creek+Owen Creek+Wingate Creek+Oglegy Creek	115.9	116.2	6.9	30.6	122.8	146.8	-19.1	0.76	0.78
36	Alderman Creek Watershed	26.3	38.1	2.1	9.9	28.4	47.9	-68.6	0.18	0.73
38	Horse Creek Watershed	140.5	129.8	9.8	89.8	150.3	219.6	-45.2	0.74	0.80
40	Blackwater Creek-Branch Borough Channel-Hillsborough River Drain Watershed	112.0	186.7	65.0	59.3	177.0	246.0	-66.8	0.35	0.64
46	Brooker Creek Watershed	20.4	26.3	0.3	8.7	20.6	35.0	-67.3	0.24	0.74
47	Sweetwater Creek Watershed	18.2	21.0	1.7	-3.5	19.8	17.5	14.8	0.46	0.68
49	Charlie Creek Watershed	193.2	229.0	11.6	137.5	204.8	366.5	-76.7	0.57	0.74
53	Lake Okahumpka Watershed	16.6	18.9	15.5	-5.3	32.1	13.6	6.6	-0.44	0.26
66	Withlacoochee River-River 142 Watershed	68.4	44.6	14.5	22.6	82.9	67.1	19.4	0.68	0.74
70	Baker Creek-Flint Creek-Hillsborough River-New River Watershed	41.7	9.0	1.7	56.5	43.3	65.4	-42.4	0.64	0.67
71	03100205-Cypress Creek Watershed	39.6	26.0	3.5	14.0	43.1	40.0	8.6	0.73	0.77
75	3100206-Brooker Sub Watershed	14.7	9.7	0.0	0.2	14.6	9.9	33.5	0.57	0.61

DV – Deviation, NS – Nash-Sutcliffe, RSMR – Root-mean square residual

Minimum Flows and Minimum Water Levels

Options were developed to evaluate MFLs and MFLs-related environmental criteria as one of the available tools for the assessment of regional groundwater availability.

Appendix C summarizes the evaluation and includes:

- ◆ A recent compliance status assessment for adopted MFLs within or those extending into the CFWI Planning Area;
- ◆ Identification of MFLs and MFL-related environmental criteria used for the groundwater availability assessment, based on application of the ECFTX model;
- ◆ Methods used to assess MFLs and MFL-related environmental criteria for groundwater withdrawal conditions evaluated with the ECFTX model; and
- ◆ Results of the modeled environmental criteria assessments.

Environmental Measures

Methods and tools were developed to evaluate water bodies without MFLs (wetland and surface water) environmental criteria for assessment of regional groundwater availability. The EMT technical report (CFWI 2020a) summarizes the methods, tools, evaluation and includes:

- ◆ Evaluation of the current stress status of 60 wetlands
- ◆ GIS-aided review of an expanded wetlands dataset
- ◆ Development of a statistical relationship between observed hydrologic stress and observed water level variations
- ◆ Use of statistical analyses and geospatial distribution of wetlands to estimate the probability of future changes in wetland stress based on modeled water level changes using the ECFTX model
- ◆ Presentation of results of the modeled environmental criteria assessments

ENVIRONMENTAL CRITERIA USED TO EVALUATE POTENTIAL IMPACTS

MFLs and MFL-Related Criteria

A subset of 53 MFLs and MFL-related environmental criteria were identified for assessment (**Appendix C, Table C-4, Figure C-5**). Thirty-nine of the 53 potential criteria were ultimately used for the groundwater availability assessment, including:

- ◆ Adopted MFLs for 29 lakes/wetlands, six springs, one river segment, and the SWIMAL for the SWUCA MIA;

- ◆ An established target regulatory water level based on five UFA wells (Ridge Lakes Target Wells) used to characterize groundwater levels below Lake Wales Ridge Lakes where MFLs have been established and are being recovered; and
- ◆ An established target regulatory water level based on five UFA wells (Upper Peace Target Wells) used to characterize groundwater levels south of the upper Peace River where MFLs have been established and are being recovered.

The 14 potential criteria excluded from the assessment were associated with MFLs scheduled for adoption or reevaluation that were not available for this 2020 CFWI RWSP determination of groundwater availability. The excluded, potential criteria were MFLs to be established for three lakes (Avalon or Johns, East Crystal, and Hodge) and one river segment (Little Wekiva) that currently lack adopted MFLs. In addition, MFLs yet to be developed that will, as necessary, replace existing, adopted MFLs for three lakes (Prevatt, South Apshawa, and Sylvan), one river segment (Wekiva River at State Road 46), six springs (Miami, Palm, Rock, Sanlando, Starbuck, and Wekiwa) and the SWUCA SWIMAL were also excluded (**Appendix C, Table C-4** and **Figure C-5**).

Criteria for Groundwater-Dominated Lakes/Wetlands Without MFLs

There are more than one million acres of wetlands within the CFWI Planning Area. The focus of the wetland risk assessment was on those wetlands that are primarily groundwater-dominated systems (20 percent of the total wetland acreage) since these types of wetlands are generally considered as being more sensitive to changes in groundwater levels as compared to systems that are substantially influenced by surface water levels (e.g., riverine systems) (**Figure D-3**). Groundwater-dominated wetlands are those wetlands whose water budget is largely driven by the exchange (both inflow and outflow) of groundwater due to their connectivity to an aquifer. Groundwater-dominated wetlands are mostly isolated, but also include headwater wetlands and seasonally inundated wetland strands. It is assumed that if these groundwater sensitive systems are protected, less vulnerable systems will also be protected. The same wetlands risk assessment methodology that was used for the 2015 CFWI RWSP analysis to predict likely effects of current and future groundwater withdrawals was used for this 2020 CFWI RWSP risk assessment. The environmental criteria used for groundwater availability purposes included the potential increase in acres of stressed wetlands and lakes in Plains and Ridge settings resulting from future increases in groundwater withdrawals.

For the 2015 CFWI RWSP, over 350 primarily groundwater-dominated wetlands and lakes within and near the CFWI Planning Area were visited and assessed. Wetlands that were considered significantly hydrologically altered were excluded since these systems were likely stressed by factors other than groundwater withdrawals. Details on wetlands that were excluded can be found in the EMT technical report (CFWI 2020a). Three classes of wetlands were then developed based on the level of available information for a given wetland (**Table D-5**)

Table D-5. Summary of wetland data classes in the CFWI Planning Area.

Wetland Data Class	Data Class Characteristics		
	Wetland Type (Ridge or Plains)	Current Stress Condition	Water Level Hydrograph
Class 1	Known	Known	Known
Class 2	Known	Known ¹	Unknown
Class 3	Known	Unknown	Unknown

¹While the current stress condition for many Class 2 wetlands was determined in the assessments conducted for the 2015 analysis, some were re-assessed since 2015 (Table 5 in CFWI 2020a for details).

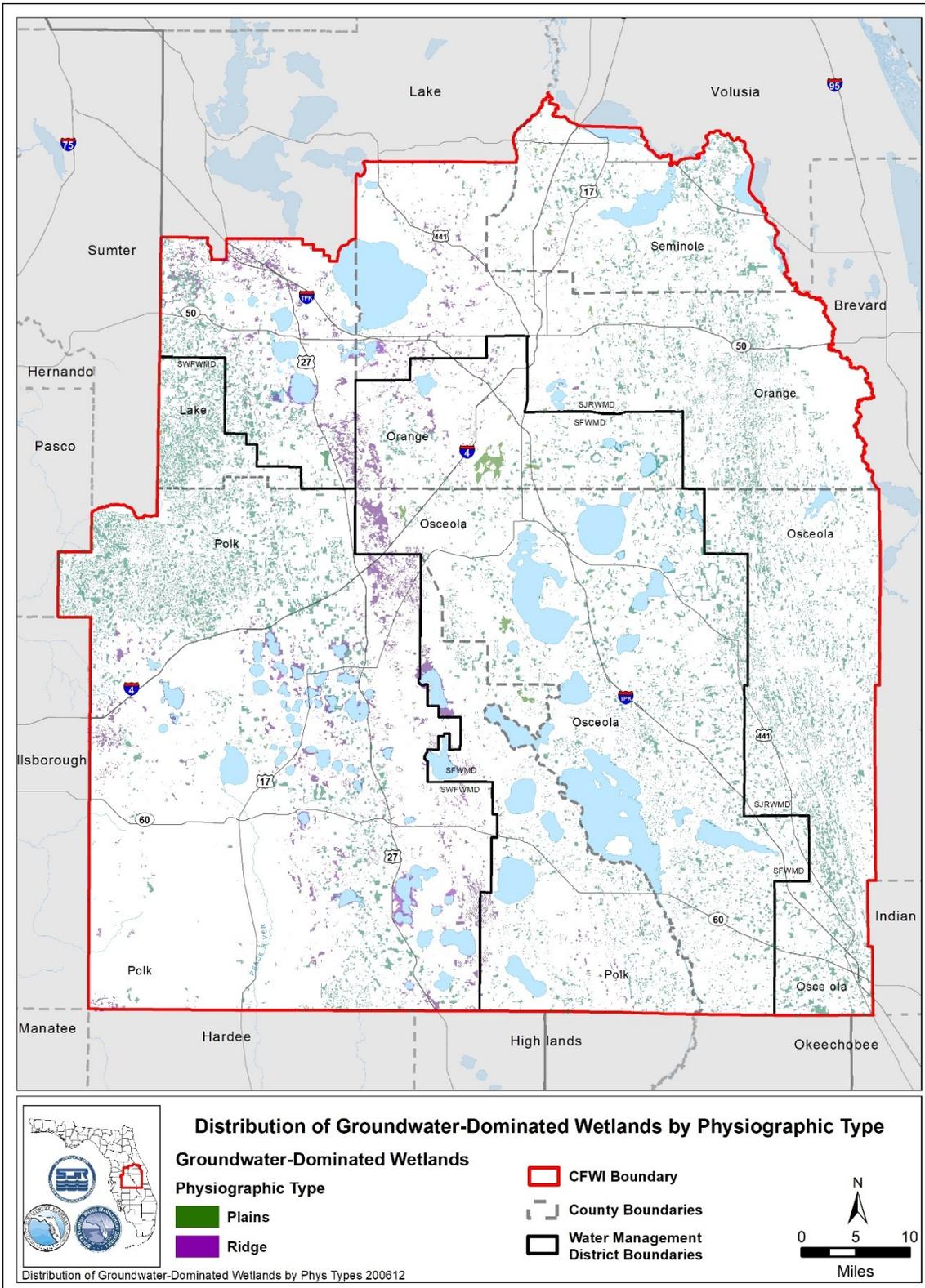


Figure D-3. Distribution of groundwater-dominated Plains and Ridge wetlands within the CFWI Planning Area included in the wetlands analysis.

As part of the 2020 CFWI RWSP assessment, forty-four Class 1 wetlands from the 2015 CFWI RWSP effort were revisited, and 16 new Class 1 wetlands were evaluated for potential addition to the monitoring dataset. As a result of a statistical analysis and a thorough review of each Class 1 wetland (described in detail below), the final Class 1 wetlands dataset used for the wetlands risk assessment included 41 of the original 44 sites and 12 of the 16 potential new sites. **Figure D-4** shows the location and current stress status of the 53 Class 1 wetlands included in this analysis.

After undergoing a thorough review, the GIS layer of Class 2 wetlands (**Figure D-5**) (with known hydrological stress condition, but no water level data) that was used for the analysis in support of the 2015 CFWI RWSP was used for this 2020 CFWI RWSP analysis. Additionally, a GIS analysis was conducted to add additional acres of Class 3 wetlands (with unknown hydrological stress condition and no water level data) located in the western portion of the CFWI Planning Area that were not included in the original model's domain.

The current status of Class I wetlands and lakes was evaluated with respect to hydrologic stress. This information was used to develop a statistical relationship between observed stress and observed water levels. The results of the wetland statistical analysis were then used to predict the likely effects of groundwater withdrawals on wetland resources as predicted by the ECFTX model for future Withdrawals Conditions. Wetlands and lakes in Plains and Ridge physiographic provinces were evaluated separately, since wetland hydrologic conditions in these systems are different as a result of underlying soils, geology, physiography, typical depths, and other factors. These methods are described in more detail below.

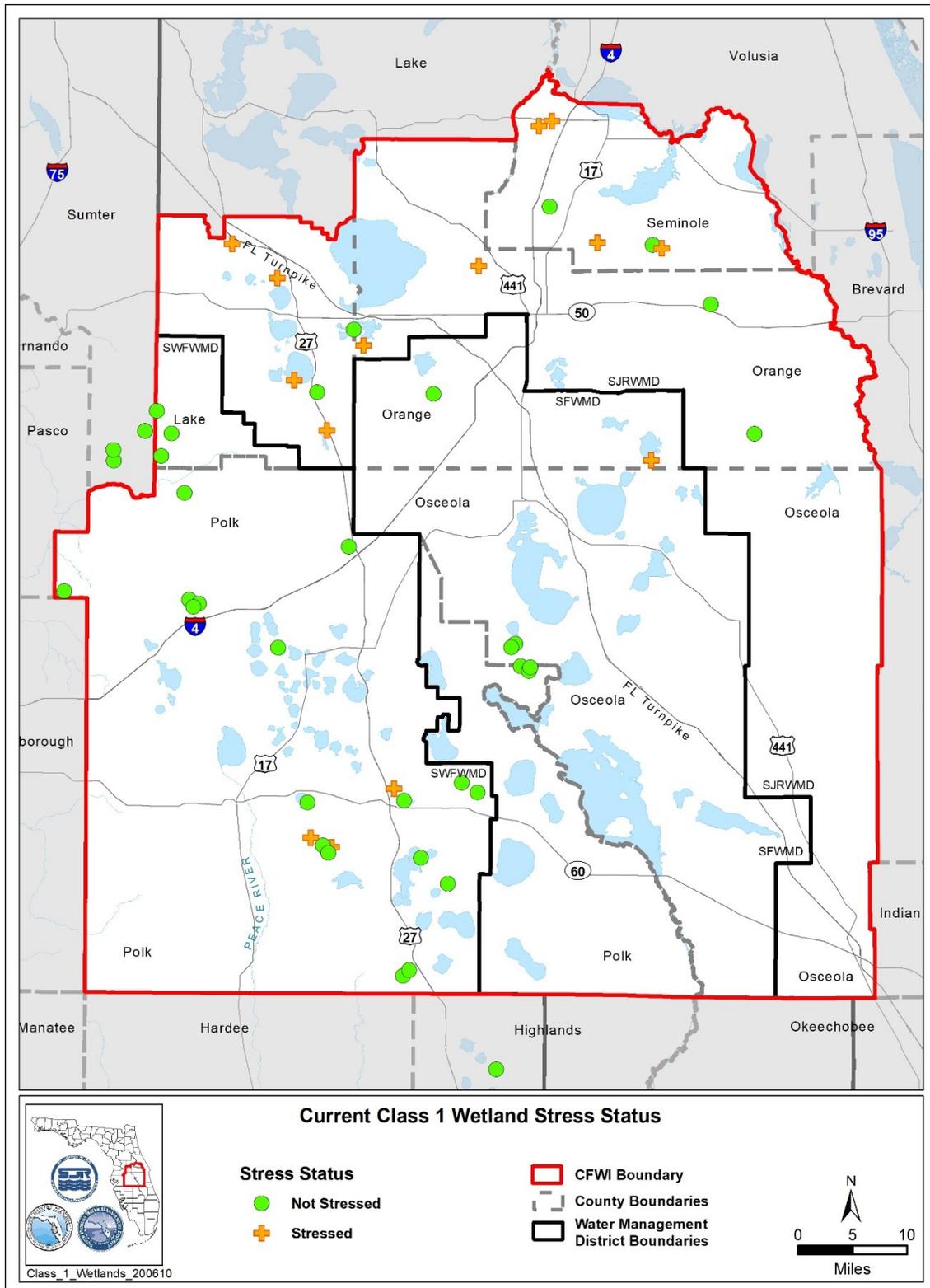


Figure D-4. Current Class 1 wetland stress status.

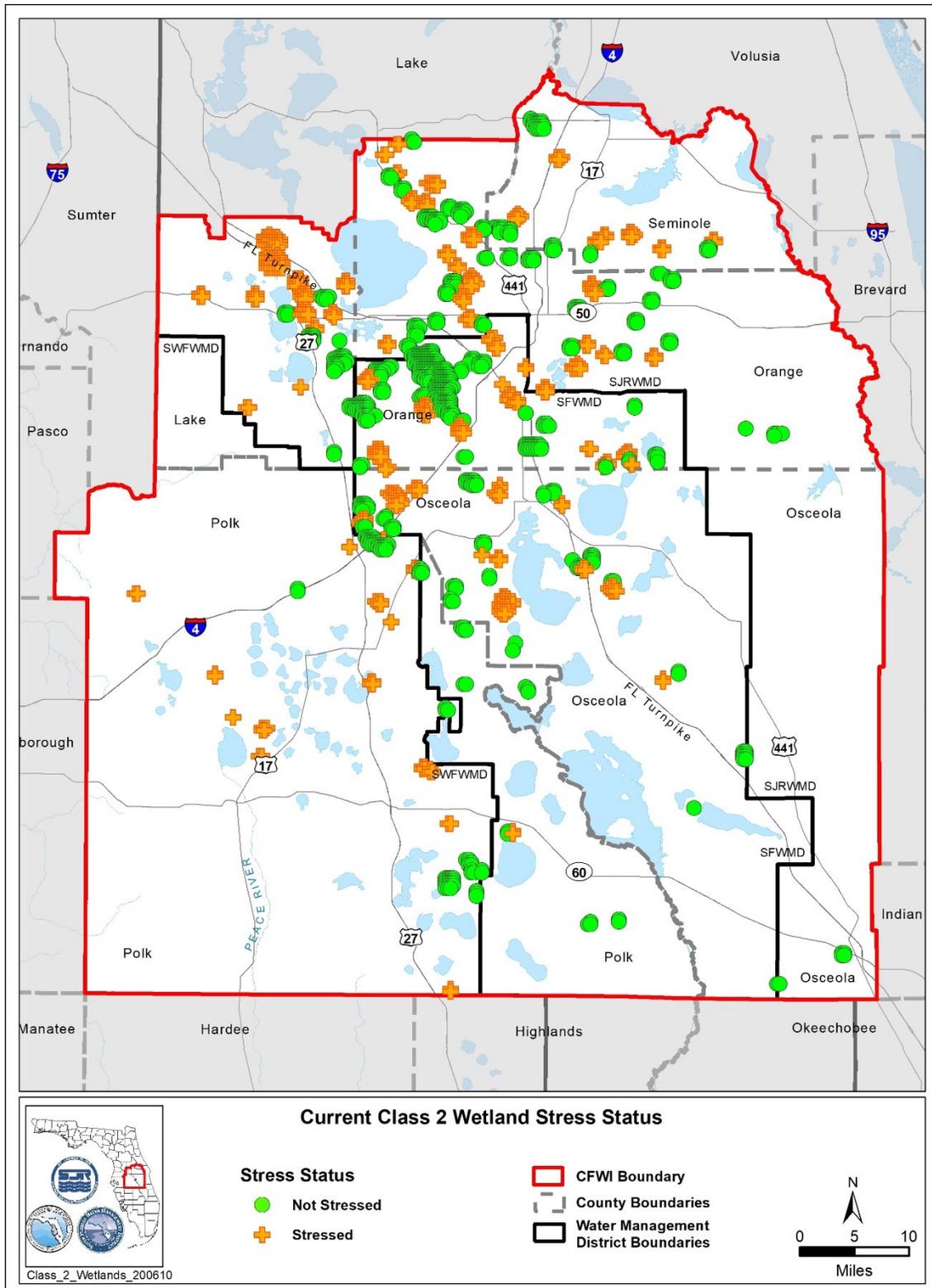


Figure D-5. Location and current stress status of the 226 Class 2 wetlands in the CFWI Planning Area included in the analysis for the 2020 CFWI RWSP. Current stress condition for many Class 2 wetlands was determined in assessments conducted for the 2015 analysis; however, since 2015 some were re-assessed (Table 5, CFWI 2020a).

Geographic Information System Analysis

Using GIS and the stress risk algorithm, the acreages of stressed and unstressed Class 1, Class 2, and Class 3 wetlands for each ECFTX model cell were calculated for the 2014 RC. For further details regarding the risk assessment methodology refer to CFWI 2020a. For Class 1 wetlands, which often consist of polygons of different wetland types, GIS processing was conducted to create a single polygon for each site by merging the different wetland polygons.

For Class 3 wetlands, GIS processing was conducted to calculate the acreage of Class 3 wetlands in the western portion of the CFWI Planning Area not included in the previous modeling effort (**Figure D-6**). In addition, through a GIS analysis, the open water acres of Class 1, 2, and 3 wetlands were removed so that the acres of stressed and unstressed wetlands for the 2014 RC were not overestimated.

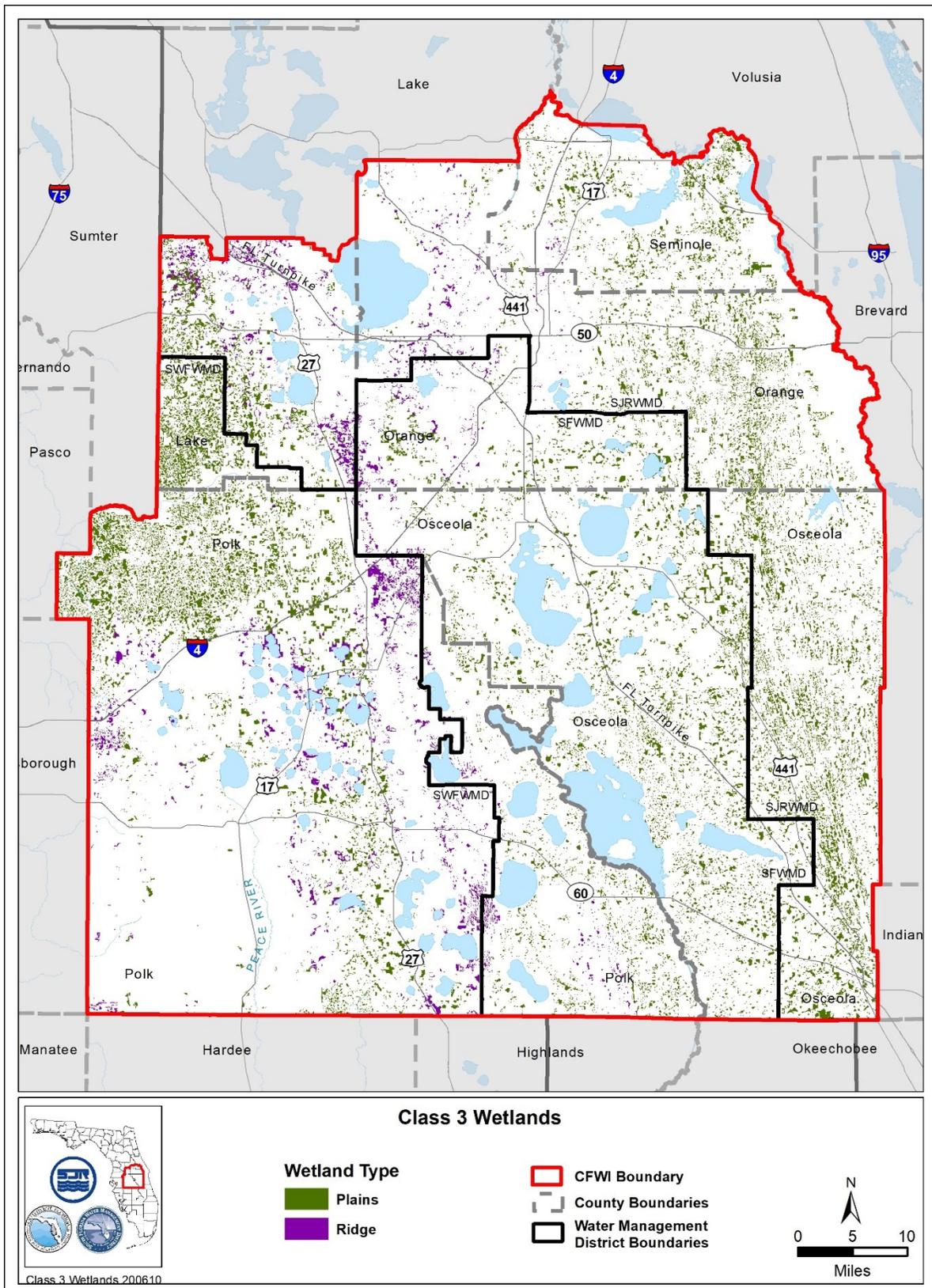


Figure D-6. Location of Class 3 wetlands in the CFWI Planning Area.

Statistical Analysis

For the 2015 CFWI RWSP, Class 1 wetlands water level data from 2006 through 2011 (a 6-year period of record) were used to compute a statistical relationship between observed stress and observed water level variation (CFWI 2013). To determine the period of record to use for the analysis without causing the dataset to become non-representative, available historic water level data for each Class 1 wetland from 2006 through 2017 were organized, preprocessed, and analyzed. This involved reformatting the available data, as well as eliminating redundant or non-relevant data and creating datasets that were in a consistent form. For most wetlands included in the dataset, only one water-level measuring device was available. However, if a site had multiple wells and staff gauges, all available data were compared, and the most representative measuring device or the device with the most complete dataset was selected. If a Class 1 wetland had multiple data collection devices and also had been selected as a DMIT monitoring site, the water level data from the upland well (which is typically located immediately adjacent to the wetland) was used to be consistent with the DMIT monitoring methodology and future analyses.

Historic water levels for each Class 1 wetland from 2006 (if available) through 2017 were summarized. The water level equaled or exceeded 80 percent of the time, i.e., the P80 water level was calculated for several date ranges for each Class 1 wetland. A series of date ranges for P80 water levels, all starting with 2006 and ending in 2011 through 2017, were graphed as line charts. These charts helped determine that the most current data captured both wet and dry years and were representative of expected hydrologic conditions. Adding additional years of data (2012 through 2017) to previously assessed data (2006 through 2011) did not generally result in large deviations between the original and amended datasets. As part of this assessment, the additional years of data (2012 through 2017) were added to the original dataset one year at a time, and P80s were calculated for each Class 1 wetland to determine how much change occurred in the P80 as a result of adding the additional year.

For each of the Class 1 wetlands included in the full dataset, a hydrologic index (θ) was calculated by subtracting the P80 value from the wetland edge elevation. Previous work demonstrated that a probability of hydrologic stress occurring in wetlands could be related to the hydrologic index or θ (CFWI 2013). The θ value distributions were reasonably approximated by the normal distribution using the Shapiro-Wilk Normality Test, as well as presented as QQ plots to help identify outliers. The Class 1 wetland θ value distributions moments (mean, standard deviation, kurtosis, skew) for each wetland group (Stressed and Not Stressed) and each physiographic province (Plains and Ridge) were evaluated for fit to the normal distributions.

The P80 rank results for date ranges 2009-2017 and 2010-2017 were very similar; ultimately, 2009-2017, a nine-year period of record, was selected since it met the test for normality and had the longer period of record. In addition, this 9-year period was chosen as the best compromise between longer periods of record for fewer sites vs. shorter periods of record for more numerous sites, while still yielding sets of hydrologic indices (θ) which approximated normal distributions.

As a result of the statistical analysis and a thorough review of each Class 1 wetland, the final Class 1 wetlands dataset used for the wetlands risk assessment included 41 of the original 44 sites and 12 of the 16 potential new sites (**Figure D-5**). Using the statistical relationship between observed stress and observed P80 water level and hydrologic index (θ) variations

for the Class 1 wetlands water level data, the probability (or risk) of future changes in potential wetland stress occurring, based on modeled water level changes between the current and future groundwater Withdrawals Conditions, was estimated for wetlands in Plains and Ridges physiographic provinces.

Most of the Plains physiographic provinces are characterized by typically confining, regionally consistent conditions where there is reduced exchange of water between the SAS and the underlying FAS. The best predictor for potential change in the long-term water level regime of Plains wetlands due to groundwater alterations is the simulated change in the SAS water table at the wetland locations (CFWI 2013). Therefore, ECFTX model results for Model Layer 1 (SAS) were used for the Plains wetlands risk assessment.

Most of the Ridge physiographic provinces are characterized by less confining conditions that vary considerably at the local scale. Because the variability occurs at a finer scale than the model grid cells and there is insufficient data available to provide calibration information on all the local variations in confinement and resulting water table elevation differences, the ECFTX model was not able to reproduce the variability in the hydrogeology of the Ridge physiographic provinces. Because of this variability, and the associated lack of data, a range of values was developed for the Ridge wetlands risk assessment. The low part of the range was based on the projected change in SAS water levels (Model Layer 1) from the ECFTX model, which may underestimate wetland water level responses to groundwater drawdown in the leakiest locations for the future groundwater withdrawal scenarios. The high part of the range was based on the projected change in UFA water levels (Model Layer 3) from the model, which may overestimate wetland water level responses to groundwater drawdown in the UFA. For Ridge wetlands, this range provides an estimate of low and high amount of potential future changes in Ridge wetlands water levels from which to estimate corresponding probabilities of changes in wetland stress conditions. Limitations of the analyses are described in the CFWI 2020a.

The stress risk algorithm that was developed for post-processing of the ECFT model results for the original analysis for the 2015 CFWI RWSP was revised to incorporate the updated statistical risk equations and for compatibility with the ECFTX model output files. Post-processing of the ECFTX model runs included:

- ◆ Calculating the potential stressed and unstressed wetland acreage for each ECFTX model cell under current conditions (e.g., 2014 RC),
- ◆ Calculating the potential change in stressed and unstressed wetland acreage for each ECFTX model cell under the simulated future Withdrawals Conditions,
- ◆ Calculating the potential change in total stressed wetland acreage for each Withdrawals Condition, and
- ◆ Preparing tables, graphs, and maps showing the geographic distribution of projected stressed wetland acreage.

Upward Migration (Upconing) of Poor-Quality Groundwater Criteria

Two generalized maps of total dissolved solids (TDS) of the upper portions of the UFA (Model Layer 3) and the LFA (Model Layer 9) were developed (**Figures D-7** and **D-8**). For all available monitoring and CUP/WUP wells with water quality data, the most recent TDS values were used to develop contours (www.cfwewater.com for water quality data used). These TDS

contour maps, which included an approximate 10-mile buffer outside of the CFWI Planning Area, were developed using the GIS-based Spline interpolation method.

Figures D-7 and D-8 were used to evaluate the potential for upward migration or upconing of underlying poor-quality groundwater at selected wellfields in the eastern portion of the CFWI Planning Area. In particular, the potential for upward movement from the lower LFA to the upper LFA under future Withdrawals Conditions was evaluated. Consideration of saltwater intrusion related to the SWUCA is discussed in **Appendix C**.

The eastern portions of the UFA within the CFWI Planning Area are known to have poor quality groundwater that has not been flushed from the aquifer by freshwater recharge. Wells and wellfields operating near these regions are subject to the possible migration of this residual poor-quality water as a result of withdrawals. This potential movement is considered local in nature. As such, the modeled changes in aquifer drawdowns within the ECFTX model were evaluated for selected UFA wellfield production zones, including facilities operated by the City of Winter Springs, Seminole County, City of Oviedo, Florida Governmental Utility Authority (Town of Chuluota), and the City of Sanford. These sites were identified based upon their history of water quality in production and monitoring wells and existing requirements for wellfield management plans within the utilities' CUPs. Increased pumping from an upper aquifer may result in increased flow from the aquifers below and has the potential to increase the local risk to maintain potable water quality.

The ECFTX model simulates groundwater flow only (i.e., it does not consider density-dependent flow or fracture flow) and vertical conduits that can lead to potential upward movement of poor-quality water cannot be explicitly simulated. However, the results of the ECFTX modeling can provide insight on the potential of water level differences that would drive additional vertical groundwater movement. To evaluate this possibility, cell-by-cell water flows for areas surrounding each wellfield were derived from ECFTX model output. These were then examined to determine if the projected withdrawals, in combination with the proposed individual utility operations, would suggest possible increases in risks of upward water movement from lower more saline aquifers into these wellfields. The difference in vertical flows between the production horizon and the model layer below each wellfield was evaluated against the increased withdrawals between the 2014 RC and future Withdrawals Conditions.

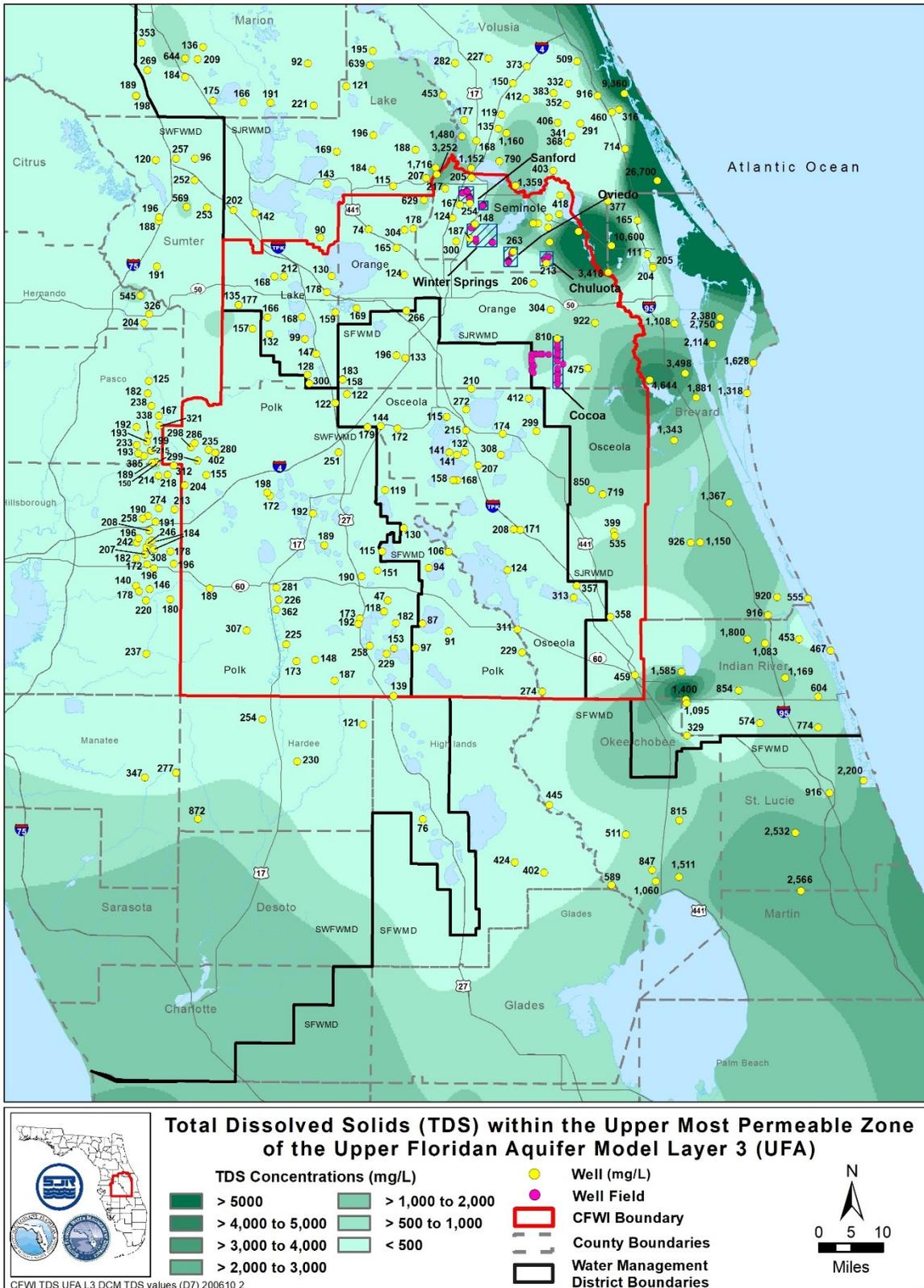


Figure D-7. Total dissolved solids within the Upper Floridan aquifer (Model Layer 3).

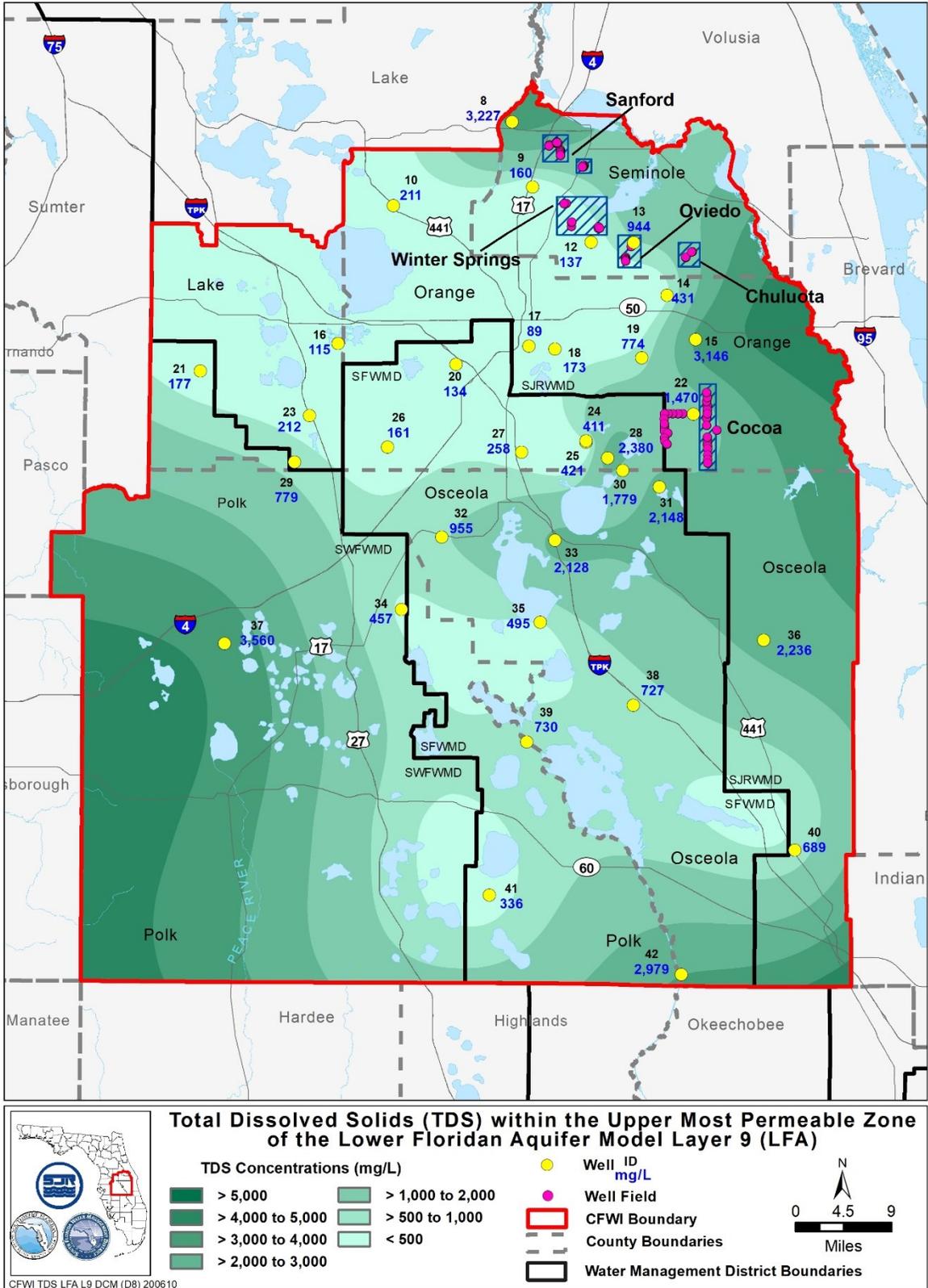


Figure D-8. Total dissolved solids within the Lower Floridan aquifer (Model Layer 9).

ANALYSIS AND RESULTS

ECFTX Model Scenarios Analysis and Results

The ECFTX model was used to calculate changes in drawdowns and spring flows by comparing the results of the 2025, 2030, 2035, and 2040 Withdrawals Conditions to the 2014 RC.

Water Demand Projections

Detailed methodologies regarding the development of the water demand projections and spatial distribution of the water demands can be found in **Appendix A**. For the ECFTX modeling effort, it was necessary to develop monthly trends and peaking factors for the 2003-2014 transient time series, which are described below.

Model Scenarios

Each Withdrawals Condition was developed to simulate water levels resulting from groundwater withdrawals needed to serve the water demands that either existed or were projected to occur in the year identified for that Withdrawals Condition. Groundwater withdrawals were varied from month to month for each Withdrawals Condition based on peaking factors. The peaking factors were based on the monthly rainfall amounts and associated changes in water use from 2003 to 2014. This concept assumed that the same water use response to variations of rainfall from that period will persist into the future.

The scenarios were constructed by adjusting dependent, input variables based on observed and calculated relationships with independent variables. Rainfall is a primary independent variable that is used to spatially and temporally adjust the dependent variables. The dependent input variables that were modified between scenarios based on rainfall included withdrawals, irrigation, runoff and infiltration, ET, and recharge. Land use is an independent variable that is unaffected by rainfall; however, it affects runoff, infiltration, and ET and was used to modify these dependent variables for the model scenarios.

The scenarios were run for 12 years (144 months) using monthly stress periods, constant land use information representing 2008/2009 conditions, and observed monthly rainfall amounts that occurred between 2003 and 2014. Based on this approach, the principal differences between scenarios were changes in withdrawal volumes and the corresponding irrigation quantities. As discussed in **Chapter 4**, due to the application of the peaking factors, the average of the period for each Withdrawals Condition will vary slightly from the water demand projections presented in **Chapter 3**. The differences in model input for the model calibration period and the Withdrawals Conditions evaluated are summarized in **Table D-6**. The results of the modeling efforts were used for assessment of potential effects on environmental criteria, including MFLs and MFL-related criteria, and lakes and wetlands without MFLs, and water quality conditions associated with potential upconing of poor-quality groundwater at selected sites.

Table D-6. ECFTX Modeled Groundwater Withdrawals versus the CFWI RWSP Groundwater Demand Projections (mgd) in the CFWI Planning Area

Source	2014	2015	2017	2020	2025	2030	2035	2040
ECFTX Modeled	619.31	N/A	N/A	700.62	752.90	796.29	825.20	861.72
CFWI RWSP Demand Projections	530.26	634.75	659.00	693.04	745.53	789.31	823.96	855.13

mgd = million gallons per day

Calculation of Peaking Factors

The effects of future changes in groundwater withdrawals are best compared using future modeled groundwater levels compared to stable RC withdrawals and water levels under the same weather conditions. Ideally, the RC should be similar to an observed historical condition to provide confidence that the RC potentiometric heads in the model are realistic. By using the same historical reference patterns to simulate a past historical condition and each future projected condition (represented by monthly rainfall and ET inputs to the model), modeled scenarios can be used to incorporate the variable effects of weather-related demands and groundwater responses, while avoiding having weather as an inconsistent variable among scenarios. For this purpose, weather observations for the calibration and verification period (2003-2014) were used as the standard weather variability for the 2014 RC and future Withdrawals Conditions.

Although observed weather conditions were used for the calibration and verification period, simulated water use was based on long-term average withdrawal estimates. The calibration and verification period show varying trends in different types of water use consistent with changes in the distribution of population factors, such as changes and declines in differing rural and urban market segments. Separate trend periods were developed for these variable population factors to help normalize peaking factor multipliers for water use values and provide the long-term, stable average withdrawal values needed for use in the 2014 RC that could be considered representative of a relatively stable population.

The year 2014 was used as the basis for development of the 2014 RC. Corresponding long-term, average water use rates were calculated with monthly variations in withdrawals driven by weather conditions and groundwater withdrawal responses that were observed for the period from 2003 through 2014. The steps to develop the long-term, average RC water use rates by use types and the appropriate pattern of month variations are summarized in **Figures D-9** through **D-20**. The method was generally consistent for each use type (PS, DSS, CII, and RIB); however, different levels of aggregation were determined to be the most appropriate for each type, requiring slight deviations in the computer code (R scripts) developed to implement applicable peaking factors as described in the following sections.

Comparison of Scripts for Water Use Normalization

normalizeWU_PSinCFWI.R vs normalizeWU_PScFWI.R

PS are processed separately inside CFWI vs outside and within the ECCTX and all are aggregated by permit

normalizeWU_RIBagg.R

RIBs are aggregated primarily by permit number however many are grouped by project name

normalizeWU_DSSbyCounty.R

normalizeWU_LRAbyCounty.R

normalizeWU_CIIbyCounty.R

DSS, LRA and CII are first aggregated by county for all permits

Initially the USE_TYPE provided in *wuls_ECCTX_MASTER* required correction for PS and DSS. Final processing of CII, LRA, RIB found it was no longer needed since corrections had been made in the master data.

```
x1Changes <- "Permit Changes 110818.xlsx"
filename = paste0(path, x1Changes)
Permit_Changes_110818 <- read_excel(filename)
Permit_Changes_110818$PERMITID <-
  paste0(substr(Permit_Changes_110818$DISTRICT.x,1,2), '_', Permit_Changes_110818$PRMT_ID)
#-----
# Modify Use_type for Water Use recs where Permit_Changes PERMITIDs match Master
#-----
UpdatedMaster <- wuls_ECCTX_MASTER_20190122 %>%
  inner_join(Permit_Changes_110818, by = c('PERMITID', 'PERMITID')) %>%
  mutate(USE_CLASS = `RWSP Permit Type`) %>%
  select(everything())
#-----
# Create new Master list of Water Use records and update from records revised by
#-----
newMaster[!is.na(match(newMaster$DISTPRMTSTN, UpdatedMaster$DISTPRMTSTN)),] <- UpdatedMaster
```

Figure D-9. Section of R Code within the water use normalization script providing the mechanism to update incorrect use_type values in the input data set (*wuls_ECCTX_MASTER*) as defined in the *Permit_Changes_119818* spreadsheet.

SELECTION CRITERIA FOR USE TYPES FROM MASTER DATA

Data selection criteria varies by use type as to whether SW is included with GW or separate normalization is required

```
normalizeWU_PSinCFWI.R
PWS_all <- newMaster[newMaster$USE_CLASS == 'PS' & newMaster$CFWI == 'Y' &
  newMaster$ECFTX_YN == 'Y' & newMaster$WD_TYPE == 'GW',]

normalizeWU_PsxCFWI.R
PWS_all <- newMaster[newMaster$USE_CLASS == 'PS' & newMaster$CFWI == 'N' &
  newMaster$ECFTX_YN == 'Y' & newMaster$WD_TYPE == 'GW',]

normalizeWU_DSSbyCounty.R
PWS_all <- newMaster[newMaster$USE_CLASS == 'DSS' & newMaster$COUNTY == cnty &
  newMaster$ECFTX_YN == 'Y' & newMaster$WD_TYPE == 'GW',]

normalizeWU_CIIbyCounty.R
CII_all <- newMaster[newMaster$USE_CLASS == 'CII_MD' & newMaster$COUNTY == cnty & newMaster$WD_TYPE == 'SW',]
  or
CII_all <- newMaster[newMaster$USE_CLASS == 'CII_MD' & newMaster$COUNTY == cnty & newMaster$WD_TYPE == 'GW',]
  or
CII_all <- newMaster[newMaster$USE_CLASS == 'CII_MD' & newMaster$COUNTY == cnty ,]

normalizeWU_LRAByCounty.R
LRA_all <- newMaster[newMaster$USE_CLASS == 'LRA' & newMaster$COUNTY == cnty & newMaster$WD_TYPE == 'SW',]
  or
LRA_all <- newMaster[newMaster$USE_CLASS == 'LRA' & newMaster$COUNTY == cnty & newMaster$WD_TYPE == 'GW',]
  or
LRA_all <- newMaster[newMaster$USE_CLASS == 'LRA' & newMaster$COUNTY == cnty ,]

normalizeWU_RIBagg.R
RIB_all <- newMaster[newMaster$USE_CLASS == 'RIB' & newMaster$ECFTX_YN == 'Y' ,]
```

Figure D-10. Selection Criteria for Use Types from wuls_ECFTX_MASTER . Data Selection criteria varies by use type as to whether SW is included with GW or separate normalization is required.

DATA AGGREGATION

Normalization grouping varies by use type (by Large Individual Permits, all Small Permits, by County, or by Project)

LRA, DSS and CII data subset is aggregated by county --LRA has an additional county (PUTNAM)

```
normalizeWU_DSSbyCounty.R
normalizeWU_CIIbyCounty.R
normalizeWU_LRAByCounty.R

countyList <- c("BREVARD", "CITRUS", "DESOTO", "HARDEE", "HERNANDO",
  "HIGHLANDS", "HILLSBOROUGH", "INDIANRIVER", "LAKE", "LEVY", "GLADES",
  "MANATEE", "MARION", "OKEECHOBEE", "ORANGE", "OSCEOLA",
  "PASCO", "PINELLAS", "POLK", "PUTNAM", "SARASOTA", "SEMINOLE",
  "SUMTER", "VOLUSIA", "MARTIN", "STLUCIE" )

normalizeWU_PSinCFWI.R
sort(unique(PWS_all$PERMITID))
PWS_subset <- PWS_all[PWS_all$PERMITID == 'SF_48-00059-W' | PWS_all$PERMITID == 'SF_48-00134-W',]
PWS_all[!is.na(PWS_all$PERMITID) & PWS_all$PERMITID == 'SF_48-00059-W',]$PERMITID <- 'SF_48-00134_00059-W'
PWS_all[PWS_all$PERMITID == 'SF_48-00134-W',]$PERMITID <- 'SF_48-00134_00059-W'
PWS_all <- rbind(PWS_subset, PWS_all)
permitPWS$Group.1 == 'SF_48-00134_00059-W' | permitPWS$Group.1 == 'SF_48-00059-W' |
  permitPWS$Group.1 == 'SF_48-00134-W',]$value <-
  permitPWS[permitPWS$Group.1 == 'SF_48-00134_00059-W' | permitPWS$Group.1 == 'SF_48-00059-W' |
  permitPWS$Group.1 == 'SF_48-00134-W',]$unaltered
```

Figure D-11. Data Aggregation prior to normalization. Grouping varies by use type (by large individual permits, all small permits, by county, or by project).

RIBs are aggregated primarily by permit number however many are grouped by project name. The STNID field was used to identify project groupings for RIBs in the master data file.

```
normalizeWU_RIBagg.R
# rename PROJECTNM and STNID for compatibility
colnames(RIB_all)[colnames(RIB_all)=="PROJECTNM"] <- "PROJECTNMx"
colnames(RIB_all)[colnames(RIB_all)=="STNID"] <- "PROJECTNM"
RIB_all[RIB_all$PROJECTNM=="",]$PROJECTNM<-RIB_all[RIB_all$PROJECTNM=="",]$PERMITID
unique(RIB_all$PROJECTNM)
if (nrow(RIB_all) > 0){
#-----
# Unpivot wide monthly data and aggregate wells by county and month
#-----
  POI <-RIB_all[,c(1:17,258:307,114:257)]
  RIB_all <- NULL
  temp<-melt(POI , id=c(1:67))
  POI <- NULL
  mgds<- temp[substr(temp$variable,1,3)=='mgd',]
  temp <- NULL
  Sums[[x]]<- future( dcast(mgds,PROJECTNM ~variable, sum, na.rm = TRUE))
} else {
  x = x -1
}
RIB_SUMS <- vector(mode = "list", length = 200)
for (i in seq(1:x)){
  RIB_SUMS[[i]]<- value(Sums[[i]])
}
RIB <- do.call("rbind", RIB_SUMS)
filename = paste0(path,'RIB.csv')
write.csv(file=filename,RIB)
permitRIB<-melt(RIB, id=1)
```

Figure D-12. An additional level of aggregation by project_name was added to provide normalization of a group of permits under a single project name.

All PS permits with and AVG_MGD < 1 are aggregated in a single small Permit

```
normalizeWU_PSinCFWI.R
normalizeWU_PScCFWI.R
#-----
# Create smallPermits recs to be used as template for missing data in small permits
#-----
smallPermits<-permitAvgMGD[is.na(permitAvgMGD$AVG_MGD) | permitAvgMGD$AVG_MGD < 1,1]
smPermitPWS<- permitPWS[permitPWS$Group.1 %in% smallPermits,]
tempDF<-cbind(Group.1='smallPWS',aggregate(smPermitPWS$value, list(smPermitPWS$variable, smPermitPWS$date),
FUN=mean, na.rm=TRUE, na.action=NULL))
names(tempDF) <-c("Group.1" , "variable" , "date" , "value" )
tempSmPermAvgMGD<-cbind(aggregate(tempDF$value,list(tempDF$Group.1), FUN=mean, na.rm=TRUE, na.action=NULL),
aggregate(tempDF$value,list(tempDF$Group.1), FUN=sd, na.rm=TRUE),
aggregate(tempDF$value,list(tempDF$Group.1), function(x) quantile(x, probs=c(.025), na.rm=TRUE)),
aggregate(tempDF$value,list(tempDF$Group.1), function(x) quantile(x, probs=c(.975), na.rm=TRUE)))
names(tempSmPermAvgMGD) <- c('Group.1','AVG_MGD','Group.1','SD', 'Group.1','lower','Group.1','upper')
tempSmPermAvgMGD <- tempSmPermAvgMGD[unique(names(tempSmPermAvgMGD))]

tempdfPWS <- left_join(tempDF,tempSmPermAvgMGD, by='Group.1')
tempdfPWS$aSPF <- NA
tempdfPWS[!is.na(tempdfPWS$aSPF) ,]$aSPF <-
(tempdfPWS[!is.na(tempdfPWS$aSPF) ,]$Apf-1)/tempdfPWS[!is.na(tempdfPWS$aSPF) ,]$sdPF
tempdfPWS$zScore = (tempdfPWS$value-tempdfPWS$AVG_MGD)/tempdfPWS$SD
tempdfPWS$unaltered <- NA
#-----
# Add SmallPermits data to beginning of permitPWS
#-----
tempdfPWS$Apf <-NA
tempdfPWS$aSDPF <-NA
names(tempdfPWS)
names(permitPWS)
permitPWS <- rbind(tempdfPWS,permitPWS)
```

Figure D-13. Normalization of Public Supply permits with and AVG_MGD<1 are based upon an aggregate of all small permits.

Adjust input data to treat 0 or very small water use as missing data

Redefine 0 and values reported as less than (100 or 200) gpd or (.0001 or .0002) mgd as NA to be treated as missing data

```
normalizeWU_PsxCFWI.R
permitPWS[permitPWS$value==0,]$value <- NA
permitPWS[!is.na(permitPWS$value) & permitPWS$value<= .0002,]$value <- NA

normalizeWU_PSinCFWI.R
permitPWS[permitPWS$value==0,]$value <- NA
permitPWS[!is.na(permitPWS$value) & permitPWS$value<= .0001,]$value <- NA

normalizeWU_RIBagg.R
permitRIB$value <- permitRIB$value*(-1.0)
permitRIB[!is.na(permitRIB$value) & permitRIB$value<= 0,]$value <- NA

normalizeWU_LRAByCounty.R
permitLRA[permitLRA$value==0,]$value <- NA
permitLRA[!is.na(permitLRA$value) & permitLRA$value<= .001,]$value <- NA

normalizeWU_CIIbyCounty.R
No adjustments are made for permitCII[permitCII$value==0,]$value

normalizeWU_DSSbyCounty.R
#-----
#  Redefine 0 and values reported as less than 1000 gpd
#  as NA to be treated as missing data
#-----
permitDSS <- permitDSS[permitDSS$date > as.Date('2003-01-01',"%Y-%m-%d"), ]
permitDSS$unaltered <- permitDSS$value
if (nrow(permitDSS[permitDSS$value==0,])>0){
  permitDSS[permitDSS$value==0,]$value <- NA
}
if (nrow(permitDSS[!is.na(permitDSS$value)& permitDSS$value<= .001,])>0){
  permitDSS[!is.na(permitDSS$value)& permitDSS$value<= .001,]$value <- NA
}
```

Figure D-14. The treatment of missing data, zeros or very small water use totals are adjusted in different manners depending upon the use type.

Define trend ranges or inflection points by Use type

Read csv table identifying trend line ranges. Each date represents a trend line endpoint. i.e.:4 points defines 3 trend lines,etc

```
normalizeWU_PSxCFWI.R
filename = paste0(path,'/PWS_TrendRangesB.csv')

normalizeWU_PSinCFWI.R
filename = paste0(path,'/PWS_TrendRangesC.csv')

normalizeWU_CIIbyCounty.R
filename = paste0(path,'/CII_TrendRangeSW.csv')
or
filename = paste0(path,'/CII_TrendRangesA.csv')

normalizeWU_DSSbyCounty.R
filename = paste0(path,'/PWS_TrendRangesB.csv')

normalizeWU_LRAbyCounty.R
filename = paste0(path,'/ LRA_TrendRangesA.csv')

normalizeWU_RIBagg.R
filename = paste0(path,'/RIB_TrendRangesB.csv')
```

Figure D-15. Define trend ranges or inflection points by use type. Trend ranges are described in more detail in subsequent figures.

Multiple methods of Trend Estimation are provided for in the code to handle the transition from one trend line to the next

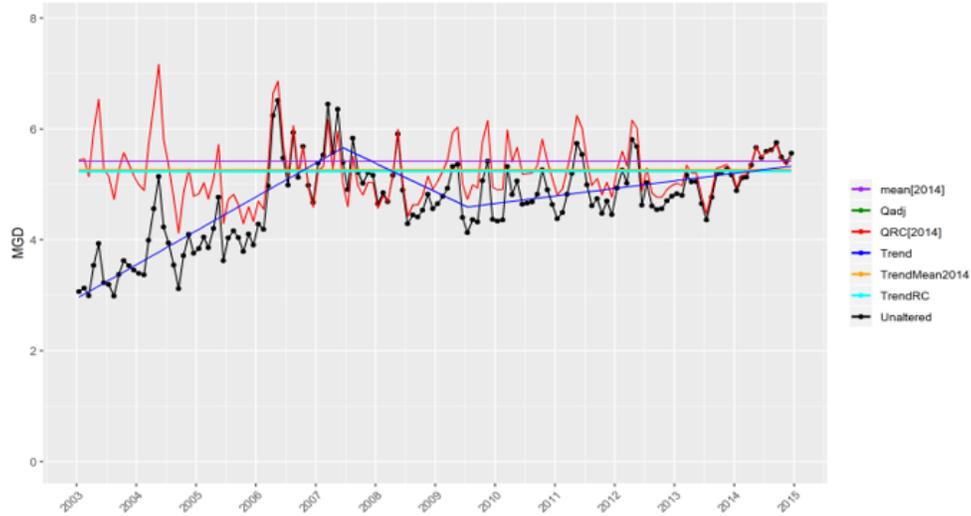
```
normalizeWU_PSxCFWI.R
normalizeWU_PSinCFWI.R
fixedTrends = TRUE

normalizeWU_CIIbyCounty.R
normalizeWU_DSSbyCounty.R
normalizeWU_LRAbyCounty.R
normalizeWU_RIBagg.R
fixedTrends = FALSE
```

Figure D-16. Multiple methods of trend estimation are provided in the code to handle the transition from one trend line to the next.

Three sections of code provide alternative trend line calculations for normalizing data, depending upon the LOGICAL variable fixedTrends and the number of dates provided in the TrendRng data set.

```
if (fixedTrends == TRUE){
  Calculate trend lines from period 1-2 and period 3-4
  And an intermediate trend line connecting the endpoint of the 1st with the start point of the 2nd
  SF_49-00084-W
```



Example: PSinCFWI for SF_49-00084-W
fixedTrends=TRUE

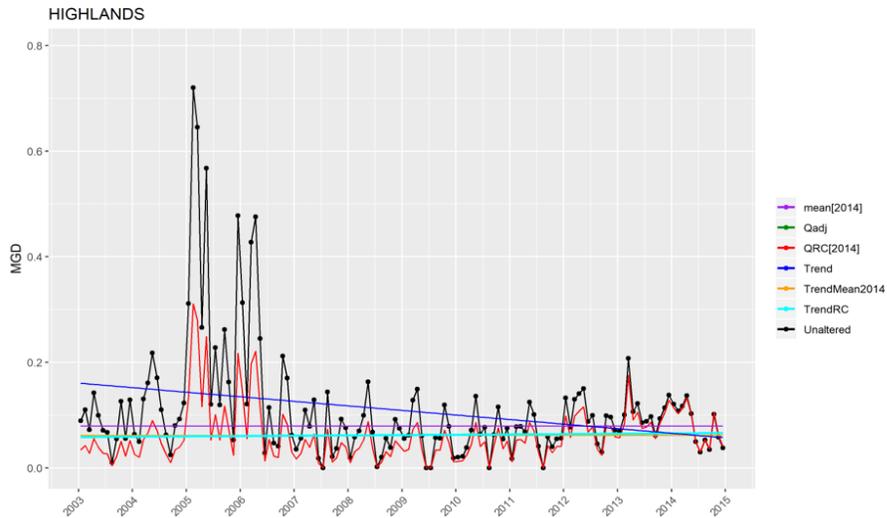
Permit	period1	period2	period3	period4
SF_49-00084-W	1/1/2003	7/1/2007	7/1/2009	12/15/2014

Figure D-17a. PS use_types (have fixedTrends equal to FALSE) are provided four trend range dates, to represent three segments. Trend lines are calculated from actual data for the beginning and ending segments (1/15/2003 -7/15/2007 and 7/15/2009 – 12/15/2014), while a third intermediate segment is defined to connect the two trend lines without regard to the data in that period. The intermediate segment is intended to represent a smooth transition period.

```

} else {
if (numTrends == 2){
# if a single trend line
Calculate trend line from period 1-2

```



Example: CII for Highlands County with 2 trendlines with fixedTrends=FALSE

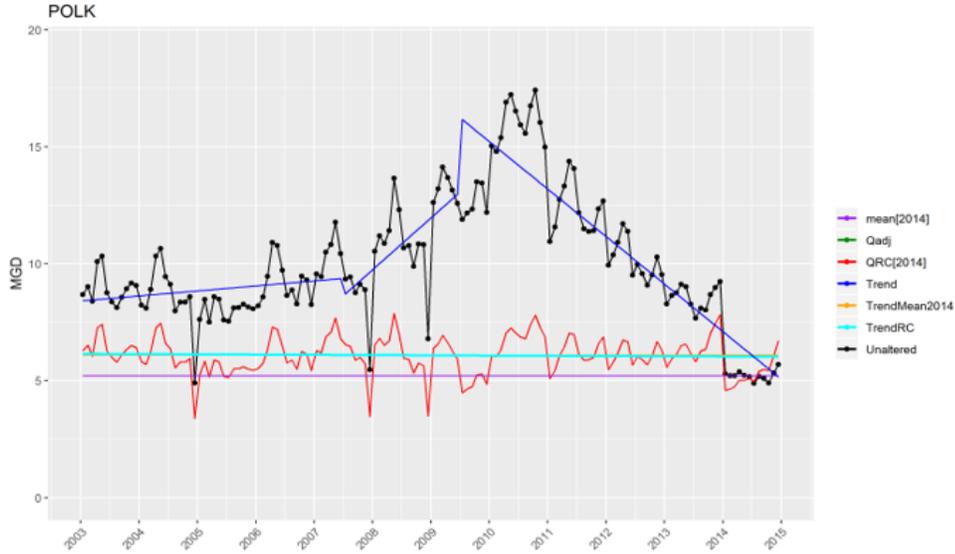
Permit	period1	period2
HIGHLANDS	1/1/2003	12/15/2014

Figure D-17b. Non PS use types (have fixedTrends equal to FALSE) and requiring a single trend line use a starting and ending period to define one trend line which is calculated from the entire period of record.

```

} else {
  # if multiple trend lines
  Calculate trend lines from period 1-2 , period 2-3, period 3-4, ... etc
  Trend lines may have dramatic shifts from the end period of one to the start period of the next.

```



Example: DSS for Polk County with 3 trendlines with fixedTrends=FALSE

Permit	period1	period2	period3	period4
POLK	1/1/2003	7/1/2007	7/1/2009	12/15/2014

```

}
```

Figure D-17c. Non PS use types (fixedTrends equal to FALSE) requiring multiple trend lines use successive periods to define starting and ending periods for each trend segment for which trends are calculated from the defined periods. (segment1 from period1 to period2, segment2 from period2 to period3, etc.)

Linear regression was performed on the monthly pumpage for the 2003–2014 period to determine the trend in pumpage. For each PWS pumpage record, the following linear model was fitted:

$$Q = a + b T \quad (\text{Eqn. 3})$$

Where:

a = A constant (the regression line intercept at a value of $T = 0$)

b = The regression line gradient

Q = The average daily PWS pumpage for each month (MGD)

T = A time value representing the mid-point of each month (days from January 1, 2003)

The monthly pumpage for the 2003–2014 period was detrended by normalizing with the trend line developed with Equation 3. Each observed monthly pumpage was divided by the expected pumpage value for that month from the fitted trend line.

The result was a monthly peaking factor series for the withdrawals during the 2003–2014 period:

$$\hat{Q}_i = a + b T_i \quad (\text{Eqn. 4})$$

Where:

\hat{Q}_i = The expected value of the average daily PWS pumpage for month i (MGD)

Other terms as previously defined.

$$PF_i = \frac{Q_i}{\hat{Q}_i} \quad (\text{Eqn. 5})$$

Where:

PF_i = The observed monthly peaking factor for month i

Q_i = The observed monthly pumpage for month i (MGD)

Other terms as previously defined.

Figure D-18. Water Use Normalization Equation as defined in ECFT Model Documentation in support of the 2015 CFWI RWSP and Chapter 5 of the 2020 ECFTX modeling time period (model data set construction, time variant input data sets).

The trend in average pumpage for the year 2014 was estimated for the midpoint of the year (July 15, 2014), using the monthly pumpage for 2003–2014 as follows:

$$\widehat{Q}_{RC} = a + b T_{\text{midpoint}2014} \quad (\text{Eqn. 6})$$

Where:

\widehat{Q}_{RC} = The trend average pumpage for the year 2014

$T_{\text{midpoint}2014}$ = A time value representing the midpoint of the year 2014 (July 15, 2014)

Other terms as previously defined.

The monthly peaking factors developed in Equation 5 were multiplied by the 2014 average pumpage from equation 6 to calculate the monthly reference condition pumpage for the whole 2003–2014 period as follows:

$$QRCi = \widehat{Q}_{RC} \times PFi \quad (\text{Eqn. 7})$$

Where:

$QRCi$ = The reference condition monthly pumpage for month i (MGD)

Other terms as previously defined.

Standardized peaking factor shape series are developed by subtracting the mean and dividing by the standard deviation of the peaking factors:

$$SPFi = \frac{PFi - 1}{\sigma_{PF}} \quad (\text{Eqn. 9})$$

Where:

$SPFi$ = Standardized peaking factor for month i

σ_{PF} = Standard deviation of observed peaking factors

Other terms as previously defined.

Figure D-19. The trend in average pumping for the year 2014 was estimated for the midpoint of the year (July 15, 2014), using monthly pumpage for 2003-2014 as shown above.

Equations are represented in all of the R scripts consistently as shown below:

```
m <- lm(value ~ date, dataSubset) # Equation 3

Qhat <- predict.lm(m,dataSubset) # Equation 4
dataSubset<-cbind(dataSubset,Qhat)

dataSubset$PF <-dataSubset$value/dataSubset$Qhat # Equation 5
SDpf<- sd(dataSubset$PF,na.rm=T)

QhatMean <-QrcMean #~Equation 6
or
QhatMean<-lookupData[lookupData$date=='2014-07-15',]$value #~Equation 6

data$QRC<- QhatMean * data$PF # Equation 7

dataSubset$SPF <- (dataSubset$PF - 1)/SDpf # Equation 9
```

Figure D-20. Equations are represented in all of the R scripts consistently as shown in the above figure.

Application of Peaking Factors and Adjustment to Agriculture for the 2014 Reference Condition

Peaking factors for CII, LR, DSS, RIB, and PS were developed as described above; as Qhat means grouped by permit, county, or project name, as appropriate.

Qhat means were split to each station (well) within a group proportionally by each station's actual annual 2014 water use. For any missing groups (e.g., small PS permits, any group with Qhat means == NA, all LR Putnam County stations), all stations belonging to those groups had *REF_2014* set to their actual annual 2014 average, *X2014*.

Peaking factors within each group are identical for all stations in that group. For any missing groups, all stations belonging to those groups have peaking factors of 1 for each time step from January 2003 to December 2014.

For AG, each District delivered a reference condition value for each station and a set of peaking factors.

SJRWMD AG reference condition:

The reference condition is developed by extrapolating the estimated 2014 pumping for each station based on an individual station's 2015 and 2020 projected pumping. A minimum pumping of 0 mgd was applied after this calculation to correct any stations that had an extrapolated 2014 RC value less than 0 mgd.

- ◆ The RC only applies to the set of stations that exists in the calibration data. Since not all stations with projections exist in the calibration set of stations, the reference condition for these projection-only stations is aggregated to the county level and split among the calibration set of AG stations in each county proportionally according to their actual annual 2014 pumping.
- ◆ A review of the stations in the North Ranch Sector Plan prompted an adjustment to these stations. An additional 9.5 mgd of surface water and 13.5 mgd of ground water was distributed among the appropriate stations in this area that also exist in the calibration data.
- ◆ Peaking factors for the SJRWMD AG stations were set to each time step's proportion of water use compared to the overall water use. It was calculated by dividing each month by the 144-month average. To correct for unusual or inconsistent patterns, if any month had a peaking factor greater than 15, the entire set of peaking factors for that station was set to the county level peaking factor for SJRWMD AG.
- ◆ All projection-only stations are set to the county-level peaking factor which is calculated by aggregating all water use for AG within each county and then calculating each time step's proportion of water use compared to the entire 144-month average.

For the SWFWMD, AG was set to acreage adjusted peaking factors, and simple proportion peaking factors were set for the for SFWMD and SJRWMD.

There are water use categories in the ECFTX model that are nominal and are not used for planning purposes. These include Environmental, Other, Unknown, Flowing Well, Fire

Protection and their peaking factors are set to 1 for each time step and the RC value is equal to the station's actual annual 2014 value.

2014 Reference Condition

The 2014 RC was developed as the basis for consistently comparing the results of Withdrawals Conditions to one another. The scenario was developed to represent aquifer conditions that would be expected if 2014 water demands were repeatedly realized over the 12-year period. Dependent water input variables were adjusted based on monthly changes of rainfall using observed and calculated relationships between rainfall and specific variables. Modeled groundwater withdrawals for the 2014 RC represent the pumping required to meet the demands for water as they occurred in 2014 given the rainfall that occurred over the period from 2003 to 2014. Using 2014 water use as the RC does not imply that 2014 is considered a base year for acceptable environmental conditions. Rather, it is simply a period for which modeled environmental conditions were characterized for a common period with relatively well-known hydrologic conditions. Potential areas of concern were identified based on the response of various water resource criteria to groundwater level drawdown between the 2014 RC and the other Withdrawals Conditions.

2040 Withdrawals Condition

The 2040 Withdrawals Condition was developed to assess modeled hydrologic conditions at the end of the 20-year planning period required for this 2020 CFWI RWSP. The scenario was constructed in a manner parallel to that of the 2014 RC using the projected withdrawals for 2040 instead of withdrawal conditions for 2014. The results of the 2040 Withdrawals Condition represent the modeled hydrologic system for the projected water demands of 2040 subjected to the rainfall conditions of 2003 through 2014. Although not required for RWSP purposes, 2025 and 2030 Withdrawals Conditions were simulated as discussed in **Chapter 4**.

2040 Assessment Results

The patterns of change between the 2014 RC and the 2040 Withdrawals Condition in the SAS, UFA, and LFA water levels are shown in **Figures D-21, D-22, and D-23**, respectively. Although the water level changes are mostly related to differences in withdrawal quantities, some changes are due to differences in the locations of withdrawal points between the 2014 RC and the 2040 Withdrawals Condition. Differences in SAS water levels for the two scenarios were most pronounced in the Ridge areas located east of US Highway 27 and south of Lake Apopka and Lakeland. The increases in SAS levels are due to the effects of return flow to the SAS from the UFA, LFA, and, to a lesser extent, surface water withdrawals. Differences in the UFA water levels for the two scenarios are most pronounced in north-central Osceola County, southwestern Orange County, and southwest Polk County. The differences in LFA water levels are centered near predominant LFA withdrawal locations in southern Orange County.

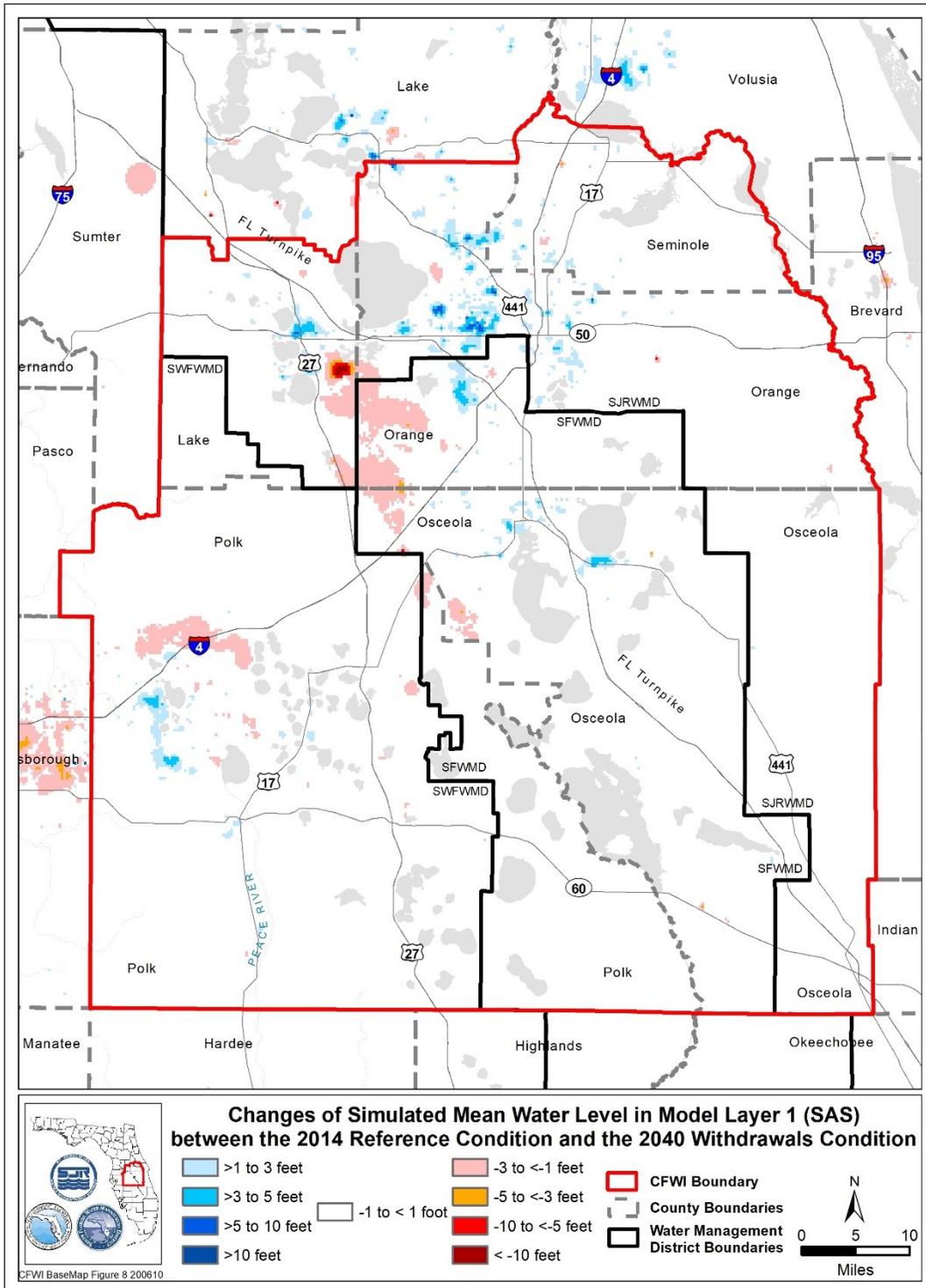


Figure D-21. The changes of simulated mean water levels in Model Layer 1 (surficial aquifer system) between the 2014 Reference Condition and the 2040 Withdrawals Condition within the CFWI Planning Area.

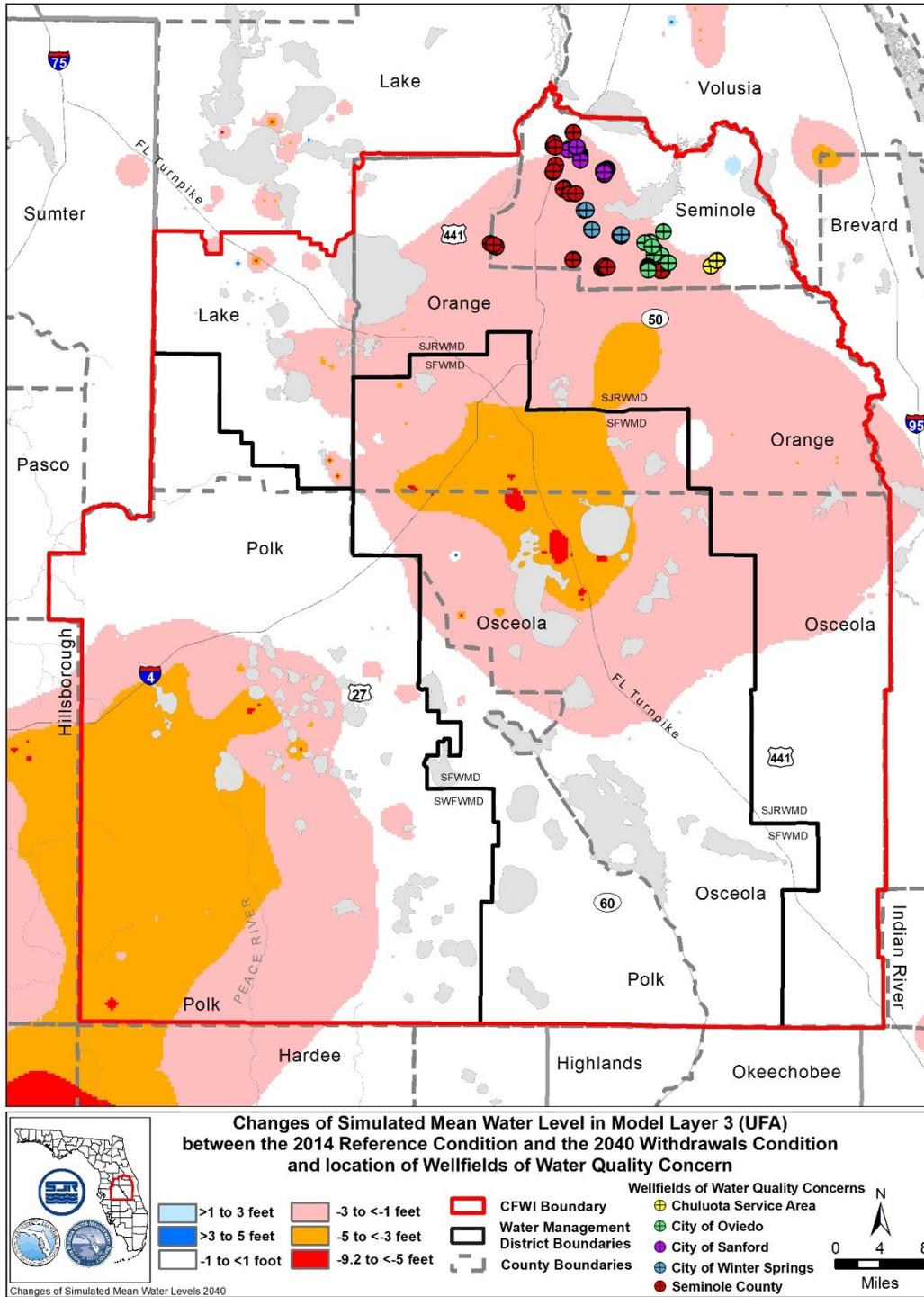


Figure D-22. The changes of simulated mean water levels in Model Layer 3 (upper Floridan aquifer or UFA) between the 2014 Reference Condition and the 2040 Withdrawals Condition within the CFWI Planning Area and location of Wellfields of Water Quality Concern.

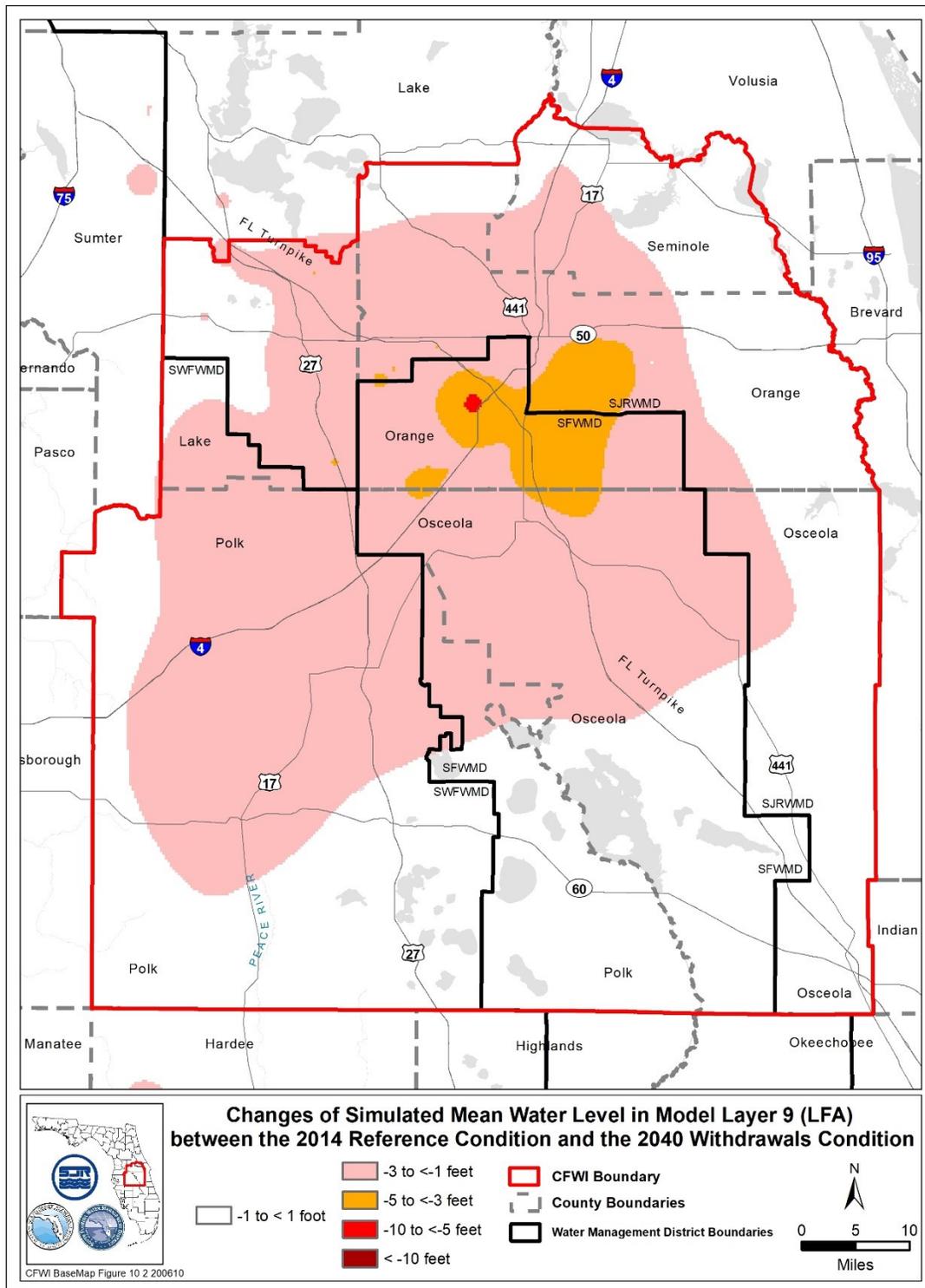


Figure D-23. The changes of simulated mean water levels in Model Layer 9 (lower Florida aquifer or LFA) between the 2014 Reference Condition and the 2040 Withdrawals Conditions within the CFWI Planning Area.

MFLs and MFLs-Related Criteria Analysis and Results

Based on ECFTX model predicted changes in UFA water levels and spring flows, a variety of methods were used to determine the change in the UFA water level or flow that would be associated with a change in status for 39 established MFLs and MFLs-related environmental criteria evaluated for the groundwater availability assessments. The various methods used to determine these water level and flow changes were based on differences in water body types (e.g., lakes vs. springs) and unique evaluation requirements associated with MFLs established independently by the SJRWMD and the SWFWMD.

Changes in groundwater levels or surface water flows that could be associated with potential change in the status of the assessed environmental criteria were characterized as freeboard or deficit values. For these analyses, freeboard is defined as the magnitude of drawdown of the potentiometric surface of the UFA or flow reduction in the vicinity of an MFL or MFL-related site that can occur without causing violation of an adopted MFL or MFLs-related environmental criterion. Conversely, the magnitude of rebound in the potentiometric surface of the UFA or increase in flow in the vicinity of a site that would be necessary to recover or meet established MFLs or MFLs-related criteria is referred to as a deficit.

Freeboard and deficit values were expressed as the potential or allowable drawdown or necessary rebound in the UFA, in feet, for lake and wetland MFLs, the SWUCA SWIMAL, and target water levels for regulatory wells in the Ridge Lakes (i.e., Lake Wales Ridge) and Upper Peace River areas that are associated with the SWUCA Recovery Strategy. For spring and river MFLs, freeboard and deficit were expressed as a flow rate in cubic feet per second (cfs).

The MFLs and MFLs-related environmental criteria results were predicted for several ECFTX model scenarios, including the 2014 RC and the 2025, 2030, 2035, and 2040 Withdrawals Conditions. The 2014 RC was used to establish “reference” freeboard/deficit values for calculating projected changes in water levels or flows and comparison with freeboard/deficits associated with differing levels of future groundwater withdrawals. The method used to establish the 2014 RC differed between the SJRWMD and the SWFWMD, and specific details regarding each method are described in **Appendix C**.

A linear interpolation technique, based on withdrawal quantities and freeboard/deficit values associated with the ECFTX model scenarios, was used to estimate freeboard/deficit values for selected criteria that could be associated with withdrawal quantities intermediate to those directly simulated with the ECFTX model. Further details about all results for the 2014 RC, 2025, 2030, and 2040 Withdrawals Conditions and interpolated freeboard/deficit values are provided in **Appendix C, Tables C-8 through C-10** and **Figures C-10 through C-16**.

Criteria Analysis and Results for Groundwater-Dominated Lakes/Wetlands Without MFLs

As mentioned earlier, since primarily groundwater-dominated wetlands are potentially more likely to be affected by groundwater withdrawals, these wetlands without MFLs, which make up approximately 20 percent of the wetlands in the CFWI Planning Area, were the focus of the wetlands risk assessment (**Figure D-3**). After excluding wetlands that were too hydrologically altered for this analysis, approximately 189,000 acres of primarily

groundwater-dominated wetlands found within the CFWI Planning Area were included in the analysis. This acreage included about 139,000 acres of Plains wetlands and approximately 50,000 acres of Ridge wetlands as shown in **Tables D-7** and **D-8** separated by wetland class.

Table D-7. Summary of results (rounded to the nearest 10 acres) for the CFWI Planning Area assessment of primarily groundwater-dominated Plains wetlands, excluding wetlands that were too hydrologically altered. Model Layer 1 (surficial aquifer system) of the ECCTX model was used to predict the wetland water level change.

Wetland Class	Total Acres of Wetlands (Stressed and Not Stressed)	Acres of Stressed Wetlands for 2014 Reference Condition	Increase in Acres of Stressed Wetlands from RC to 2025 Withdrawals Condition	Increase in Acres of Stressed Wetlands from RC to 2030 Withdrawals Condition	Increase in Acres of Stressed Wetlands from RC to 2040 Withdrawals Condition
Class 1	1,100	750	0	0	10
Class 2	5,830	1,830	0	10	10
Class 3	131,980	14,080	760	990	1,420
Total	138,910	16,660	770	1,000	1,440

Table D-8. Summary of results (rounded to the nearest 10 acres) for the CFWI Planning Area assessment of primarily groundwater-dominated Ridge wetlands, excluding wetlands that were too hydrologically altered. Model Layer 1 (surficial aquifer system) of the ECCTX model was used to predict the wetland water level change.

Model Aquifer Layer Used to Predict Wetland Water Level Change	Wetland Class	Total Acres of Wetlands (Stressed and Not Stressed)	Acres of Stressed Wetlands for 2014 Reference Condition	Increase in Acres of Stressed Wetlands from RC to 2025 Withdrawals Condition	Increase in Acres of Stressed Wetlands from RC to 2030 Withdrawals Condition	Increase in Acres of Stressed Wetlands from RC to 2040 Withdrawals Condition
surficial aquifer system (Model Layer 1)	Class 1	5,530	1,400	20	20	30
	Class 2	11,340	3,200	210	320	700
	Class 3	33,610	14,080	270	360	690
	Total	50,480	18,680	500	700	1,420
Upper Floridan aquifer (Model Layer 3)	Class 1	5,530	1,400	390	450	540
	Class 2	11,340	3,200	540	750	1,090
	Class 3	33,610	14,080	1,820	2,360	3,070
	Total	50,480	18,680	2,750	3,560	4,700

As represented in **Tables D-7** and **D-8**, when compared to the 2014 RC, the probable net increase in stressed wetland acres for Plains and Ridge wetlands resulting from the 2025, 2030, and 2040 Withdrawals Conditions is shown graphically in **Figures D-24**, **D-25**, and **D-26**. A comparison of the probable change in the proportion of stressed and not stressed Plains and Ridge wetland acres for each of the Withdrawals Conditions is shown in **Figure D-24**.

Under the 2014 RC, 12 percent of the Plains wetlands are currently stressed. The total probable acres of stressed Plains wetlands increased 0.5 percent for the 2025 Withdrawals Condition; by 0.7 percent for the 2030 Withdrawals Condition; and by 1 percent for the 2040 Withdrawals Condition compared to the 2014 RC (**Figure D-25**).

Approximately 37 percent of Ridge wetlands are currently stressed under the 2014 RC. The total probable acres of stressed Ridge wetlands increased between 1 and 5 percent for the 2025 Withdrawals Condition; by 1.5 and 7 percent for the 2030 Withdrawals Condition; and by 2 to 9 percent for the 2040 Withdrawals Condition, compared to the 2014 RC (**Figure D-26**).

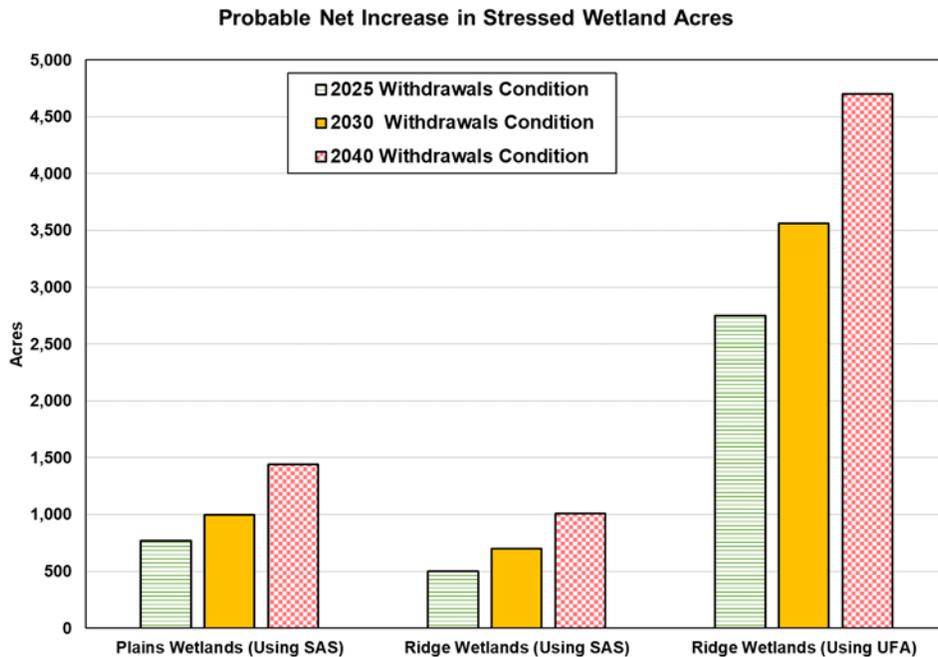


Figure D-24. The probable net increase in acres of stressed Plains and Ridge wetlands for the 2025, 2030, and 2040 Withdrawals Conditions. SAS – surficial aquifer system; UFA – Upper Floridan aquifer.

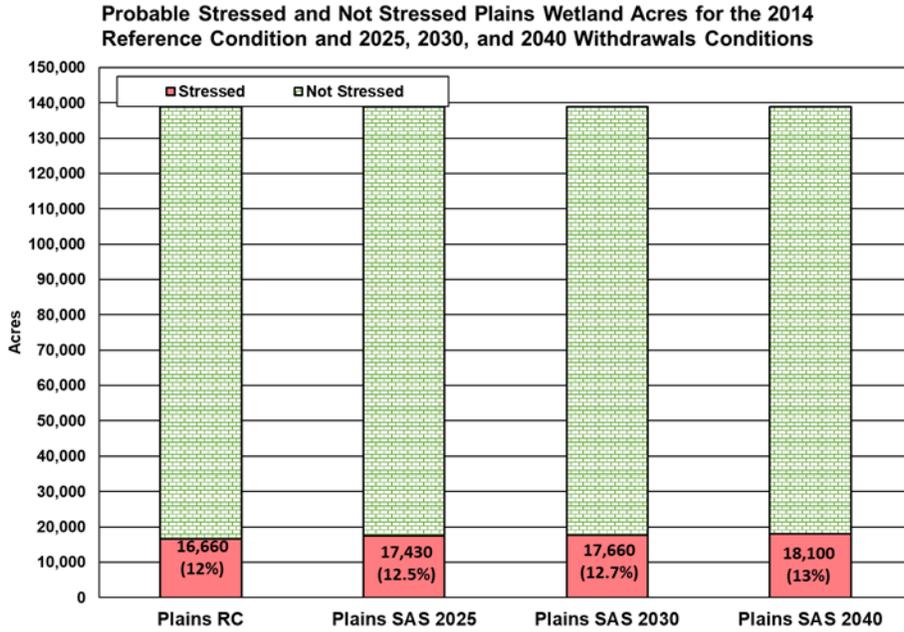


Figure D-25. A comparison of probable acres of stressed and not stressed Plains wetlands for the 2025, 2030, and 2040 Withdrawals Conditions. RC – 2014 Reference Condition; SAS – surficial aquifer system.

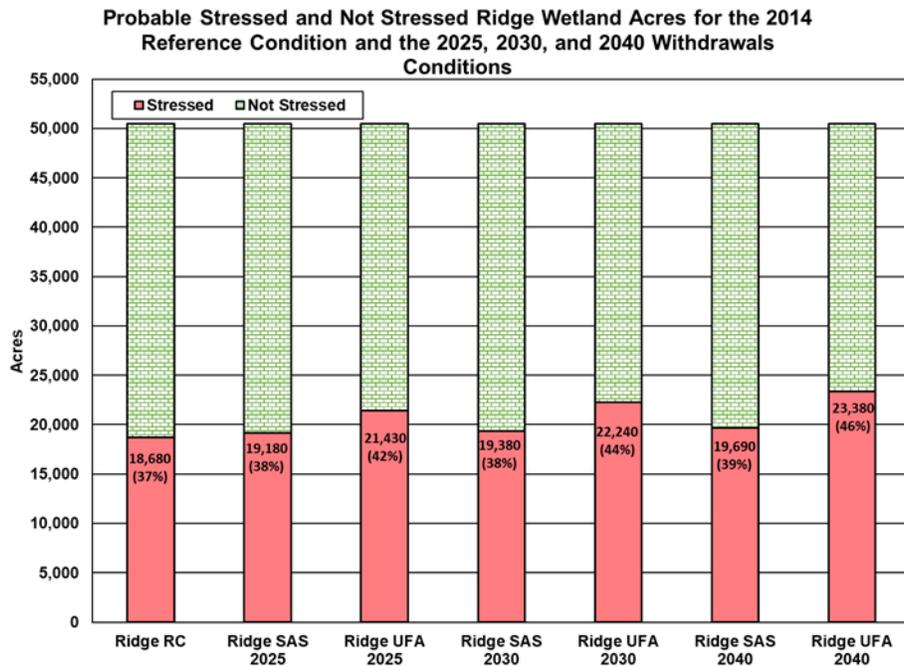


Figure D-26. A comparison of probable acres of stressed and not stressed Ridge wetlands 2025, 2030, and 2040 Withdrawals Conditions. RC – 2014 Reference Condition; SAS – surficial aquifer system; UFA – Upper Floridan aquifer.

For the 2025 Withdrawals Condition, regional maps of the probable acres of change in stress by model cell for Plains and Ridge wetlands are presented in **Figures D-27** and **D-28**. Since Model Layer 1 was used to predict wetland water level changes for both Plains and Ridge wetlands in **Figure D-27**, it represents the low range while **Figure D-28** represents the high range since Model Layer 3 was used to predict wetland water level changes for Ridge wetlands.

Regional maps of the probable acres of change in stress by model cell for Plains and Ridge wetlands for the 2030 Withdrawals Condition are presented in **Figures D-29** and **D-30**. Since Model Layer 1 was used to predict wetland water level changes for both Plains and Ridge wetlands in **Figure D-29**, it represents the low range, while **Figure D-30** represents the high range since Model Layer 3 was used to predict wetland water level changes for Ridge wetlands.

Figures D-31 and **D-32** include regional maps of the probable acres of change in stress by model cell for Plains and Ridge wetlands for the 2040 Withdrawals Condition. Similar to the maps for the 2030 Withdrawals Condition scenario, **Figure D-31** represents the low range and **Figure D-32** represents the high range because of the different model layers used to predict wetland water level changes for the Ridge wetlands.

Similar to the previous analysis conducted in support of the 2015 RWSP, the results of the wetlands risk assessment evaluated the probable of wetland stress occurring at the regional scale and can't be applied to the local scale. The regional scale of the ECFTX model limits its precision in predicting future changes of water elevations in specific lakes and wetlands. The wetland stress response is also sensitive to the initial hydrologic condition of each wetland, and this is not known for most of the wetlands within the CFWI Planning Area. Both of these uncertainties have been minimized by averaging the effects across the entire CFWI Planning Area. This reduces the overall effect of random errors because randomly distributed positive and negative errors at individual locations tend to cancel each other when predicted effects at individual locations are summed across the region to obtain a predicted net regional effect (CFWI 2013).

For **Figures D-27** through **D-32**, the negative values (green shading) represent change from Stressed to Not Stressed, while the positive values (white, yellow, orange, and pink shading) represent change from Not Stressed to Stressed. Also note that white denotes areas not included in these analyses. Because these risk assessments are at the regional scale, these regional maps cannot be applied locally to individual lakes and wetland systems.

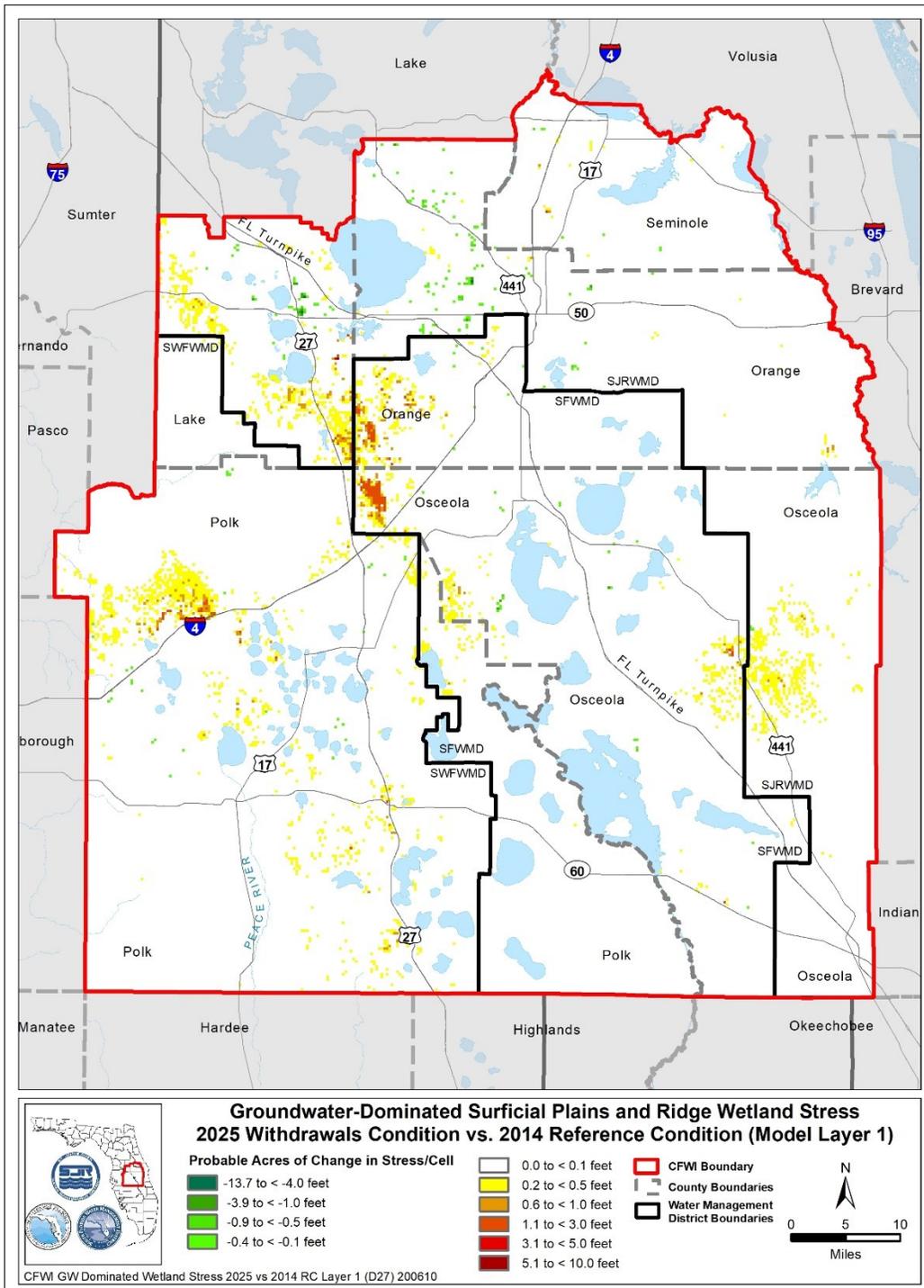


Figure D-27. The probable change in acres stressed Plains and Ridge wetlands by model cell for the 2025 Withdrawals Condition relative to the 2014 Reference Condition using Model Layer 1 (surficial aquifer system) to predict wetland water level changes between the two scenarios.

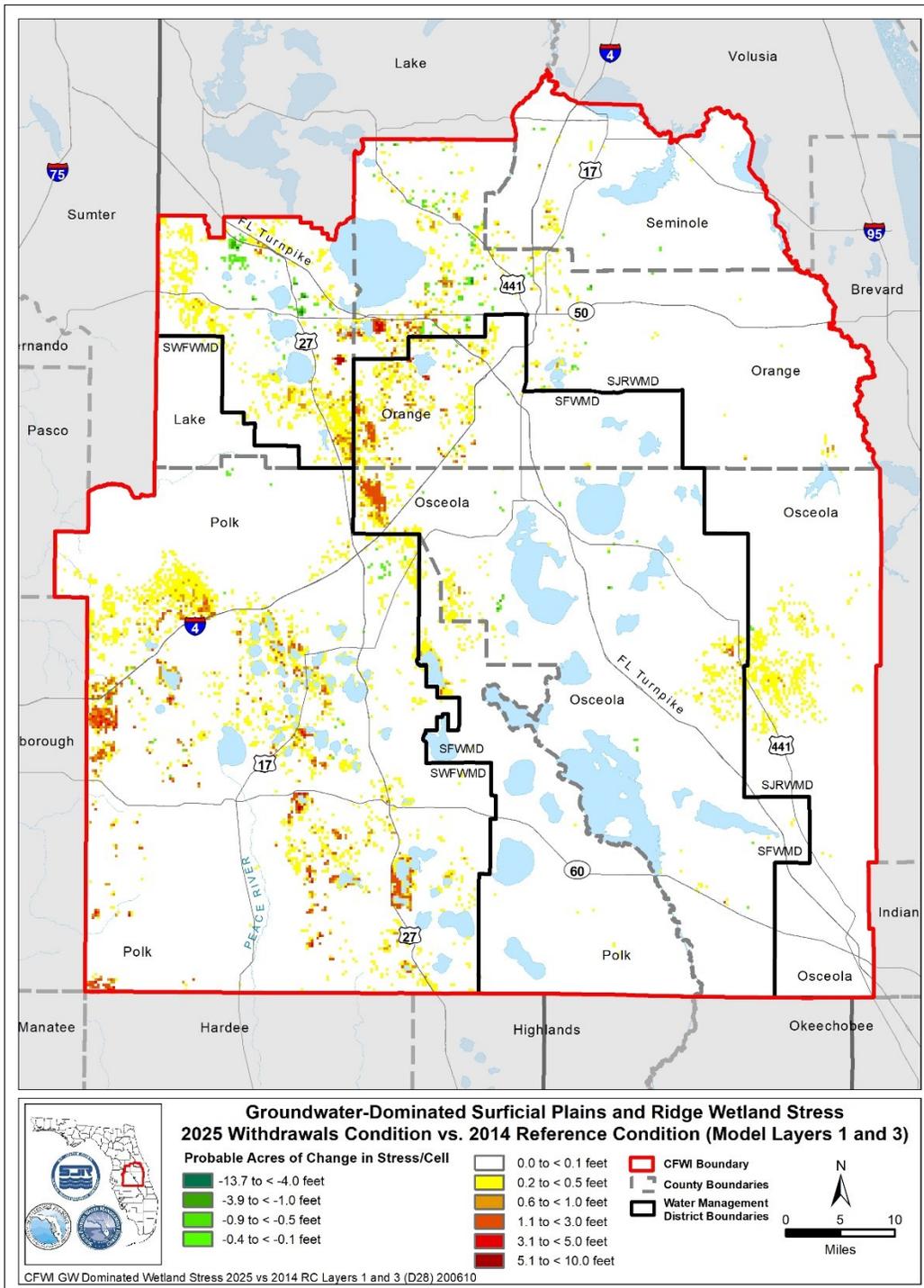


Figure D-28. The probable changes in acres of stressed Plains and Ridge wetlands by model cell for the 2025 Withdrawals Condition relative to the 2014 Reference Condition, using Model Layer 1 (surficial aquifer system) and Ridge wetlands using Model Layer 3 (Upper Floridan aquifer) to predict water level changes between scenarios, respectively.

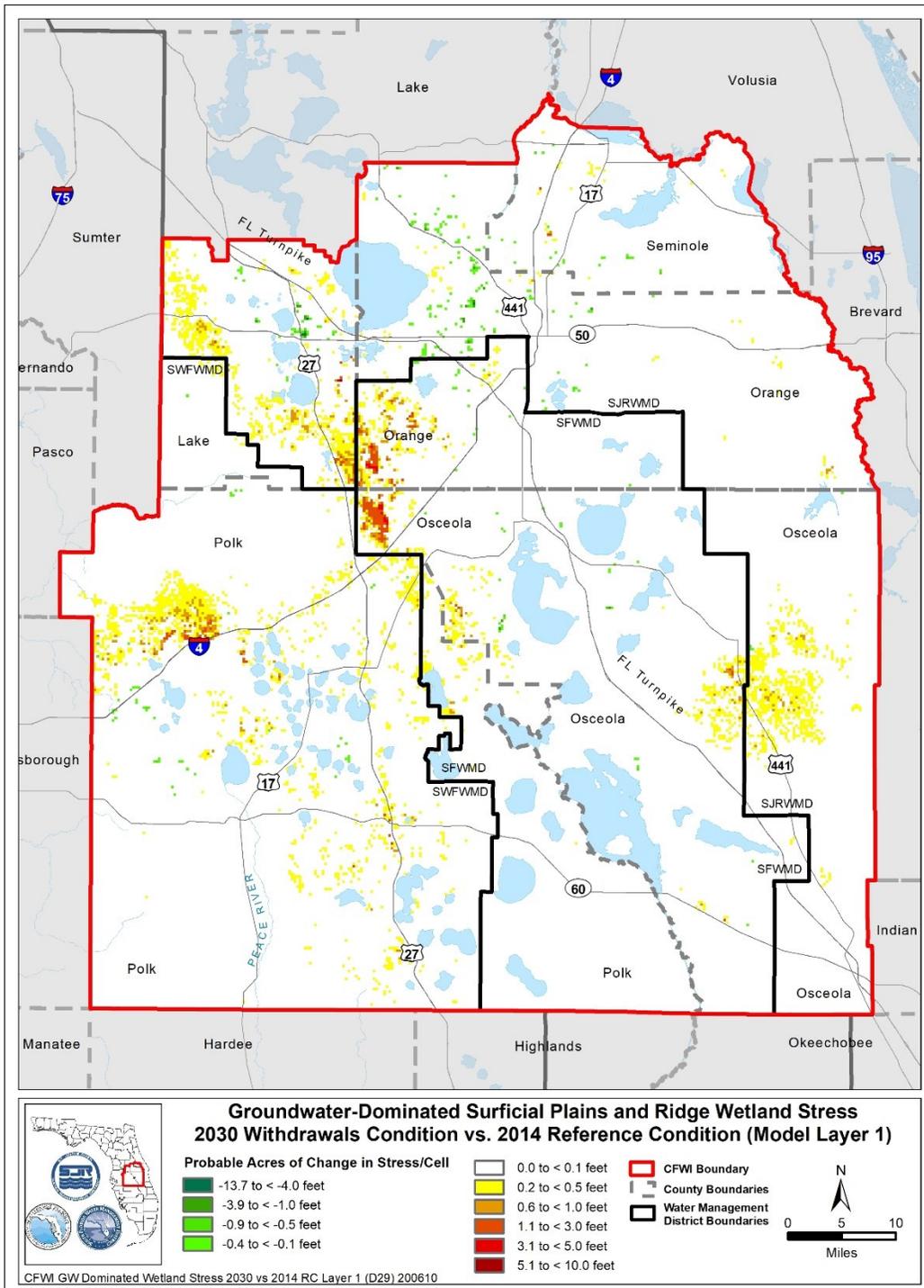


Figure D-29. Compared to the 2014 Reference Condition, the probable acres of change in stress by model cell for Plains and Ridge wetlands using Model Layer 1 (surficial aquifer system) to predict wetland water level change for the 2030 Withdrawals Condition.

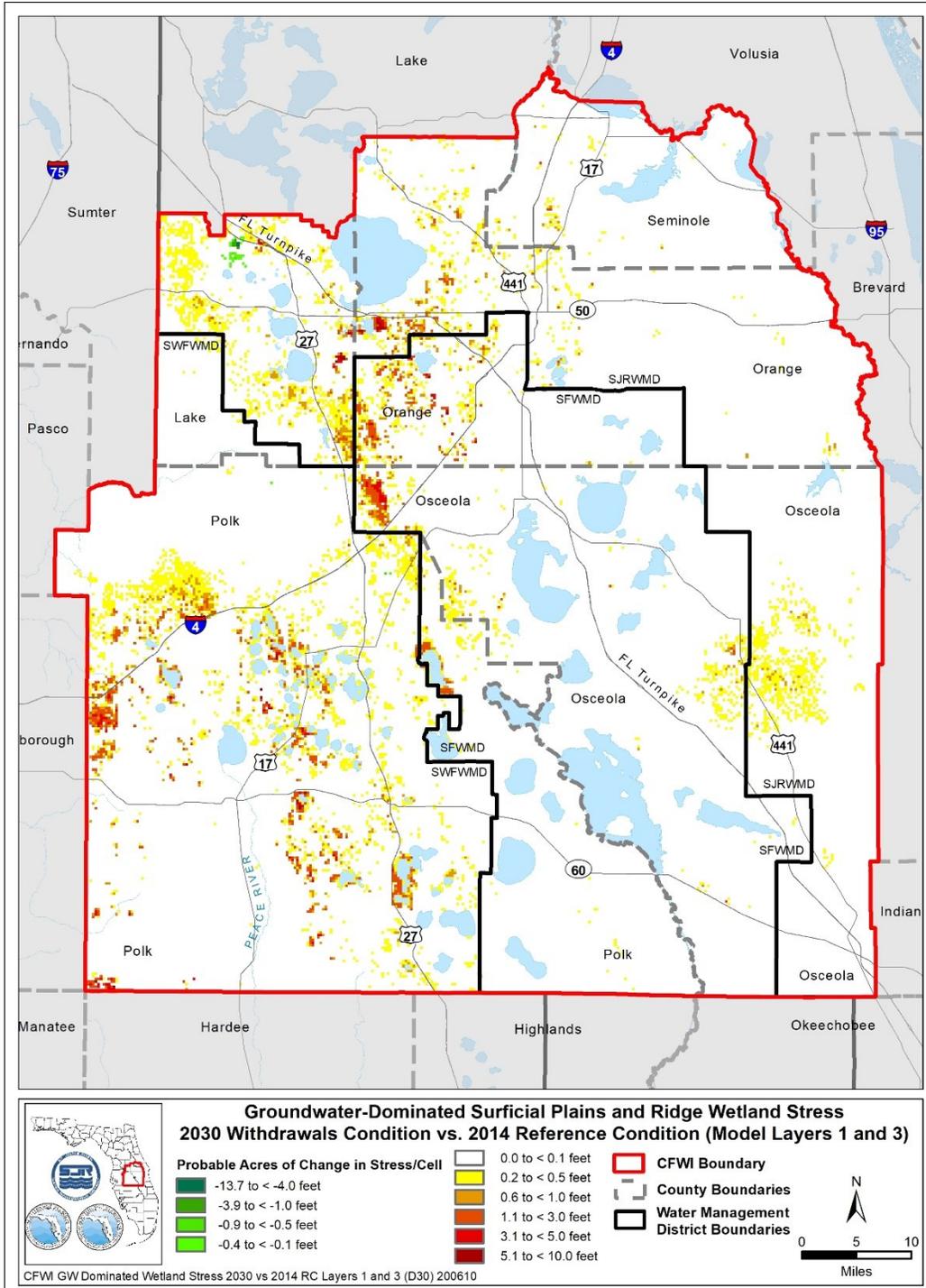


Figure D-30. Compared to the 2014 Reference Condition, the probable acres of change in stress by model cell for Plains wetlands using Model Layer 1 (surficial aquifer system) and Ridge wetlands using Model Layer 3 (Upper Floridan aquifer) to predict wetland water level change for the 2030 Withdrawals Condition.

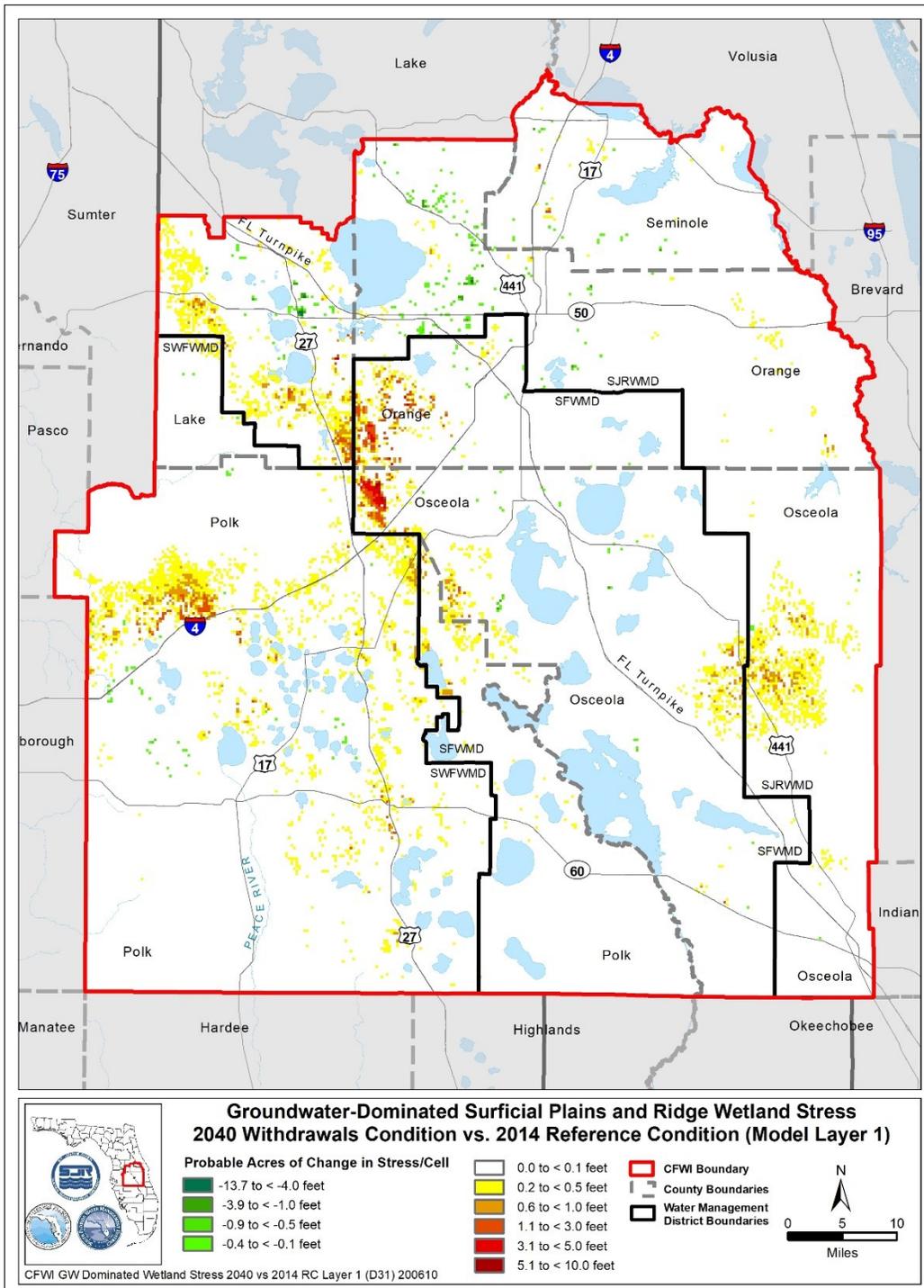


Figure D-31. Compared to the 2014 Reference Condition, the probable acres of change in stress by model cell for Plains and Ridge wetlands using Model Layer 1 (surficial aquifer system) to predict wetland water level change for the 2040 Withdrawals Condition.

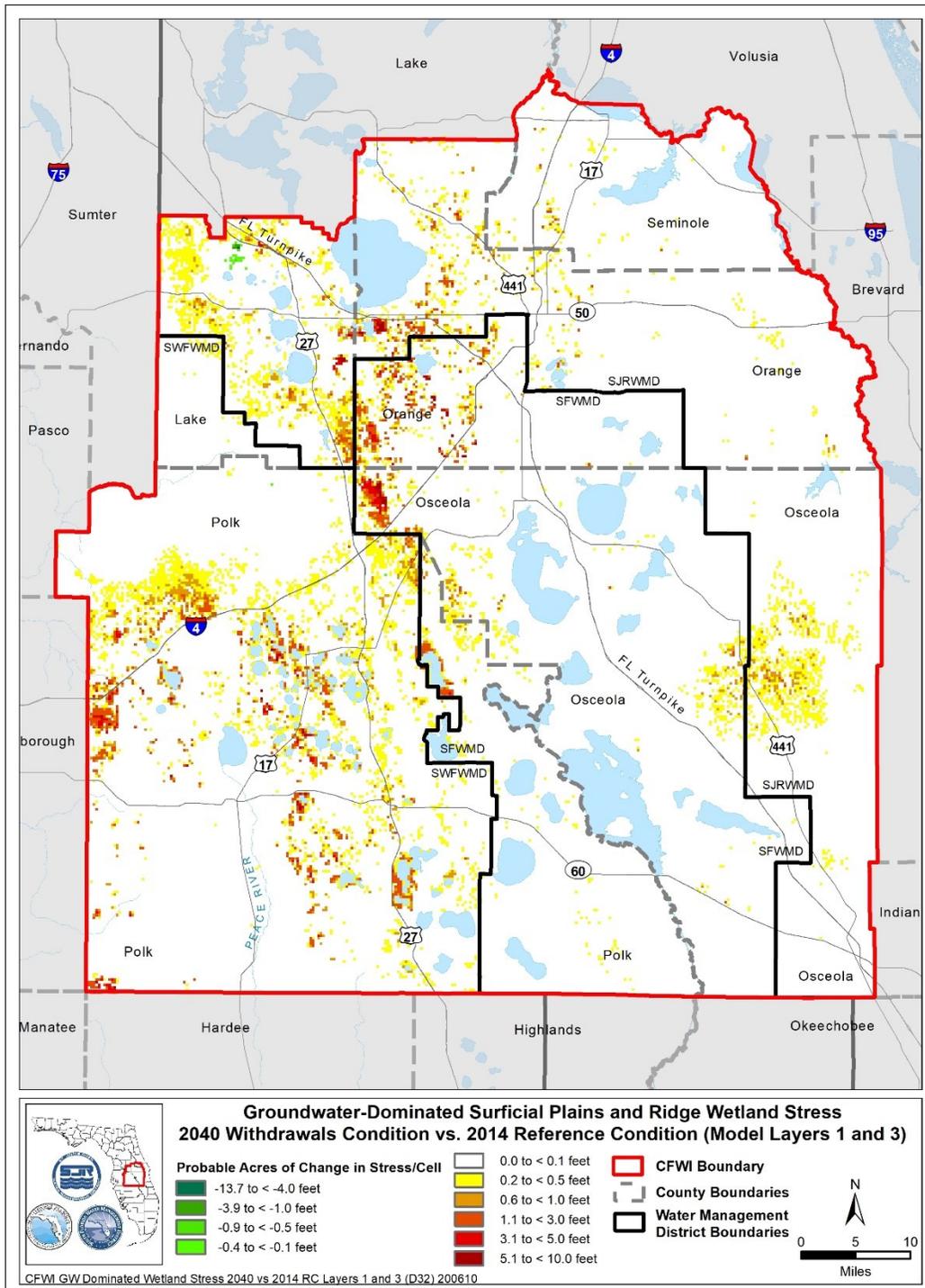


Figure D-32. Compared to the 2014 Reference Condition, the probable acres of change in stress by model cell for Plains wetlands using Model Layer 1 (surficial aquifer system) and Ridge wetlands using Model Layer 3 (Upper Floridan aquifer) to predict wetland water level change for the 2040 Withdrawals Condition.

Upward Migration (Upconing) of Poor-Quality Groundwater Criteria Analysis

The difference in vertical flows between the production horizon and the model layer below five wellfield areas were evaluated against the increased withdrawals between the 2014 RC and 2040 Withdrawals Conditions. A map representing the predicted increased vertical flux through the bottom face of Model Layer 5 in the ECFTX model (i.e., upward movement from the LFA to the UFA) was created showing the location of these wellfields (**Figure D-33**). The map, which also depicts a generalized configuration of the TDS concentrations in Model Layer 9 (LFA), reveals that these wellfields lie in an area that is predicted to see an increase in vertical flux where higher concentrations of TDS exist at depth in the LFA. This relatively small amount of additional increased flux is not expected to lead to unacceptable additional water quality degradation, given the monitoring and management plans that are implemented through the permits associated with the assessed wellfield areas. A similar map was created depicting the predicted increase in vertical flux through the bottom face of Model Layer 9 in the ECFTX model (i.e., representing upward movement from the lower LFA to the upper LFA) (**Figure D-34**). As a qualitative assessment for water quality, this effort provides insight and identifies areas where the potential for upward flux exists due to increased pumping.

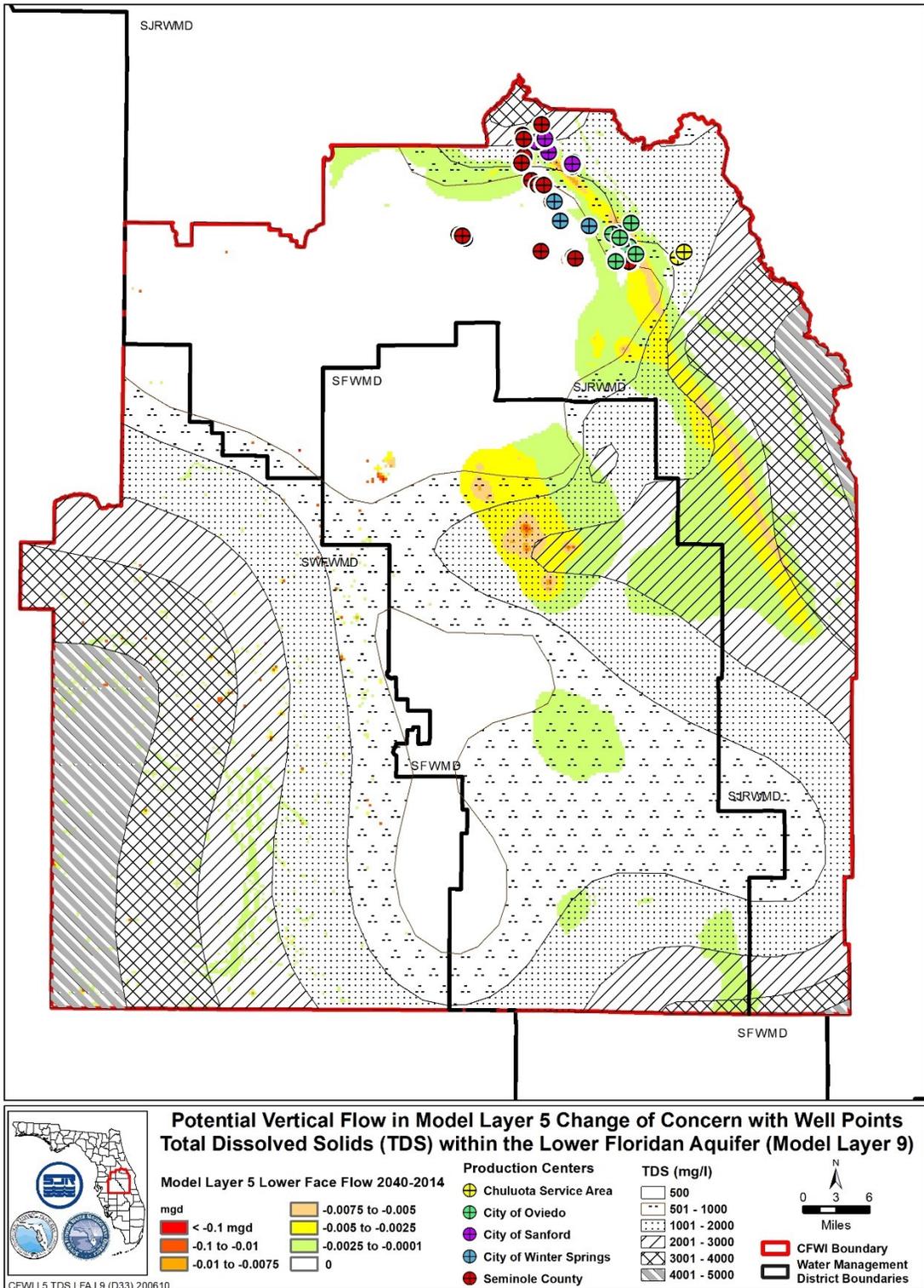


Figure D-33. Predicted increased vertical flow through the bottom face of Model Layer 5 between the 2014 Reference Condition and the 2040 Withdrawals Condition within the CFWI Planning Area.

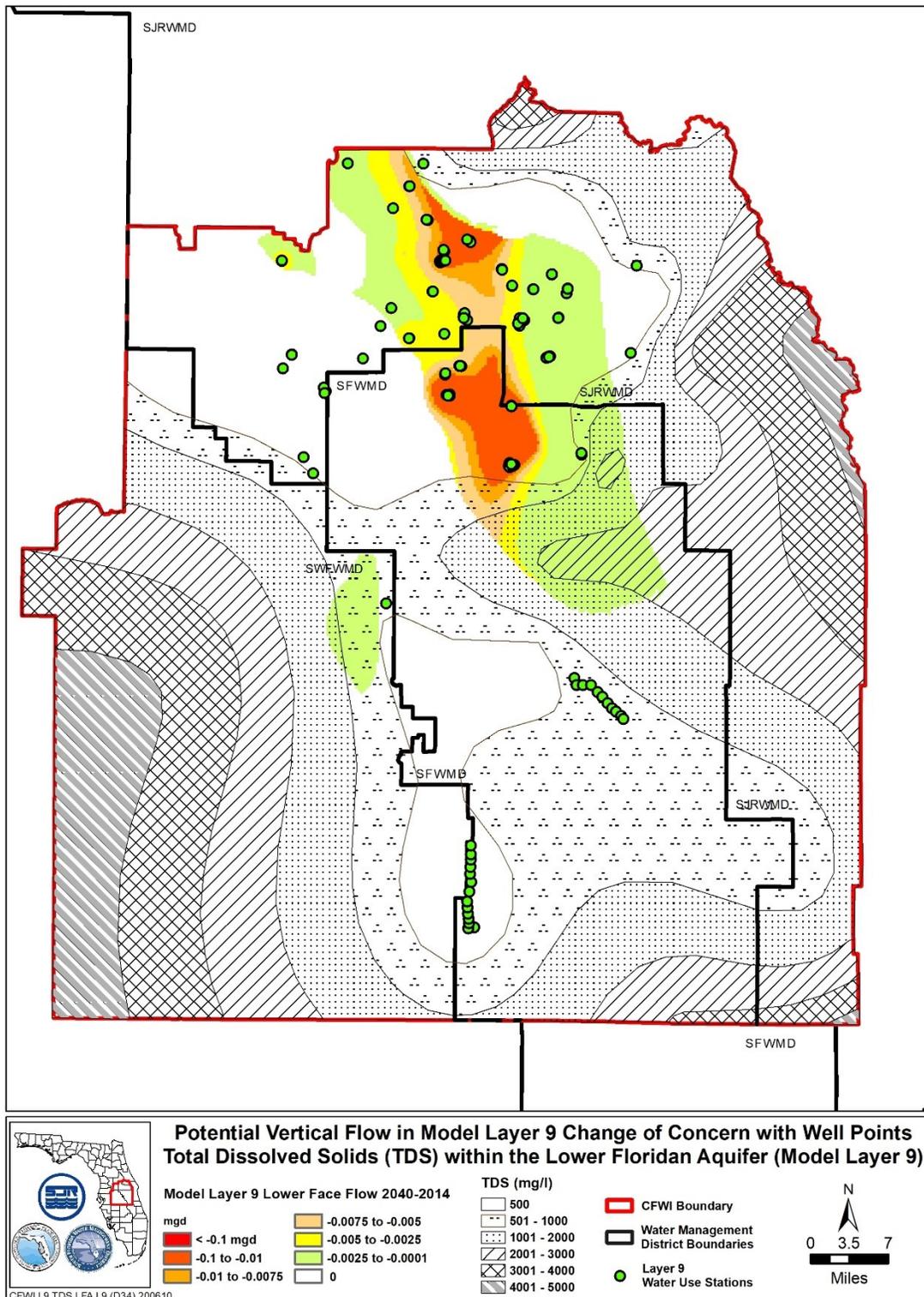


Figure D-34. Predicted increased vertical flow through the bottom face of Model Layer 9 between the 2014 Reference Condition and the 2040 Withdrawals Condition within the CFWI Planning Area. Model Layer 9 withdrawal points represented as green circles.

PLANNING-LEVEL GROUNDWATER AVAILABILITY

The ECFTX model and environmental criteria were used to develop a planning-level assessment of groundwater availability. Based on these analyses, the CFWI Planning Area could potentially sustain up to 760 mgd of fresh groundwater withdrawals, but local management strategies will be needed (e.g., wellfield optimization, aquifer recharge, and natural system enhancement) to address unacceptable impacts. Additional fresh groundwater withdrawals, beyond 760 mgd, are limited by water resource and natural system constraints. In addition, traditional resources alone cannot meet currently permitted allocations (**Table D-9**).

Table D-9. Permitted quantities of withdrawals in the CFWI Planning Area (mgd).

Water Use Category	Groundwater	Surface Water	Total	Total (Percent)
PS	645.41	20.95	666.36	56%
AG	262.53	52.58	315.11	27%
CI/PG/MD	115.97	20.37	136.34	11%
Other	2.00	11.12	13.12	1%
Total	1,064.13	125.48	1,189.61	100%

mgd = million gallons per day

The number, location, and magnitude of impact on freeboard for MFLs and MFLs-related criteria, and groundwater quality, along with the quantities and spatial distribution of probable increased stressed acres of wetlands, were used to determine the probable extent of groundwater withdrawal impacts in the CFWI Planning Area.

An analysis of conditions associated with the 2014 RC withdrawal volume of 619 mgd indicated that 11 of 39 MFLs and MFLs-related criteria are not being met and 37 percent of Ridge wetlands (19,000 acres) and 12 percent of Plains wetlands (17,000 acres) are stressed. There are also resource concerns associated with MFLs in the SWUCA under the 2014 RC, but implementation of the SWUCA Recovery Strategy is yielding recovery of UFA water levels in that area.

Given that there are existing impacts under the 2014 RC, it was determined that the planning-level groundwater availability should be limited to the volume of groundwater withdrawal under which no additional MFLs would be exceeded. The first step in identifying this quantity was to determine the groundwater withdrawal volume at which there was no change in status for any of the MFL or MFL-related criteria. Using the linear interpolation method noted previously and described in Appendix C, it was determined that this occurs at approximately 760 mgd. Secondly, an analysis of environmental criteria under the 2030 Withdrawals Condition (796 mgd) showed resource concerns in the SWUCA still remain and two new MFL sites, the Wekiwa River at SR 46 and Wekiwa Springs, an OFS, were projected to fall below their adopted MFLs. Legislation passed since the approval of the 2015 CFWI RWSP emphasizes protection of OFSs and thereby provides direct support for water management and planning decisions that support compliance with the MFLs established for Wekiwa Springs (and other OFSs) and indirect support for consideration of the MFLs established for the Wekiwa River, which receives substantial inflow from Wekiwa Springs (Section 373.801(3)(b), F.S.). Under the 2030 Withdrawals Condition, there was also a 1 to 5 percent probable increase in stressed Ridge wetland acres (700 to 3,600 acres). A 1 percent

probable increase in stressed Plains wetland acres (1,000 acres) relative to the 2014 RC also occurred under the 2030 Withdrawals Conditions.

Upon review of the results under the 2040 Withdrawals Condition (862 mgd), it was evident that expansion of withdrawals associated with projected demands through the planning horizon would increase the amount and areal extent of water resource stress. Under this scenario, two additional MFLs are projected to not be met for Rock Springs (another OFS) and Lake Prevatt, and additional Ridge and Plains wetland acres would be subjected to a probable increase in stress. **Table D-10** summarizes the changes to environmental criteria used in determining the CFWI planning-level groundwater availability.

Table D-10. Planning level groundwater availability assessment for the CFWI Planning Area.

Environmental Criteria	Simulated Withdrawal Volumes			
	619 mgd (2014 Reference Condition)	760 mgd	796 mgd	862 mgd
MFLs and MFLs-related Criteria	28 Met	No Change in Status	26 Met	24 Met
	11 Not Met		13 Not Met	15 Not Met
Stressed Plains Wetlands	17,000 Acres	+770 Acres	+1,000 Acres	+1,400 Acres
	12%	+0.50%	+0.70%	+1%
Stressed Ridge Wetlands	19,000 Acres	+ 500 to 2,750 Acres	+700 to 3,600 Acres	+1,000 to 4,700 Acres
	37%	+ 1 to 5%	+1.5 to 7%	+2 to 9%

mgd = million gallons per day

It should be noted the 760 mgd limit on groundwater availability is not anticipated to be reached until after the next update in 2025. Additionally, the MFL water bodies in the Wekiva Basin, including Wekiwa and Rock Springs, are scheduled for re-evaluation in 2020. If it is determined that a recovery or prevention strategy is still needed following the re-evaluation effort, detailed modeling of the resource benefit to these MFL water bodies due to implementation of specific projects and management strategies will be conducted.

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E

Water Supply and Water Resource Development Project Options

INTRODUCTION

This Appendix provides a list of 85 potential water supply and water resource development project options for the CFWI Planning Area, as well as 21 water conservation project options (**Figure E-1** and **Table E-1**). The project options listed in **Tables E-2** through **E-7** include 44 projects from the 2015 CFWI RWSP and 61 new projects identified by the Districts or submitted by stakeholders. The Districts solicited new projects from area water users via targeted form letters to municipalities, email lists, and press releases. A standard project submittal form was provided to ensure consistent submittals. An updated cost estimating tool from the 2015 CFWI RWSP was also available for public use. The project option submittal form and cost estimating tool are available on the CFWI website.

Cumulatively, the 85 water supply project options have the ability to treat, store, or produce up to 557 mgd (approximately 532 mgd net water) of additional water supply or water resource benefit, exceeding the 2040 projected water supply shortfall of 95 mgd. Projects are arranged by project type: brackish/nontraditional groundwater, water conservation, reclaimed water, surface water, stormwater, and management strategy options. Within each type, projects are organized by project number. Projects from the 2015 CFWI RWSP are numbered as "2015" followed by their original project number. New projects for this 2020 CFWI RWSP are numbered as "2020" followed by a newly assigned number based on the order presented. In some cases, mutually exclusive projects are listed, so it is unlikely that every project on the list can be implemented. Additionally, some of these projects are in the planning stage or conceptual in nature, and their actual water supply yield may change after the project is implemented.

A project identified for inclusion in this 2020 CFWI RWSP document might not necessarily be selected for development by the listed water supplier. In accordance with Section 373.0361(6), Florida Statutes (F.S.), nothing contained in the water supply component of a RWSP should be construed as a requirement for local governments, public or privately-owned utilities, special districts, self-suppliers, multi-jurisdictional entities, and other water suppliers to select that identified project.

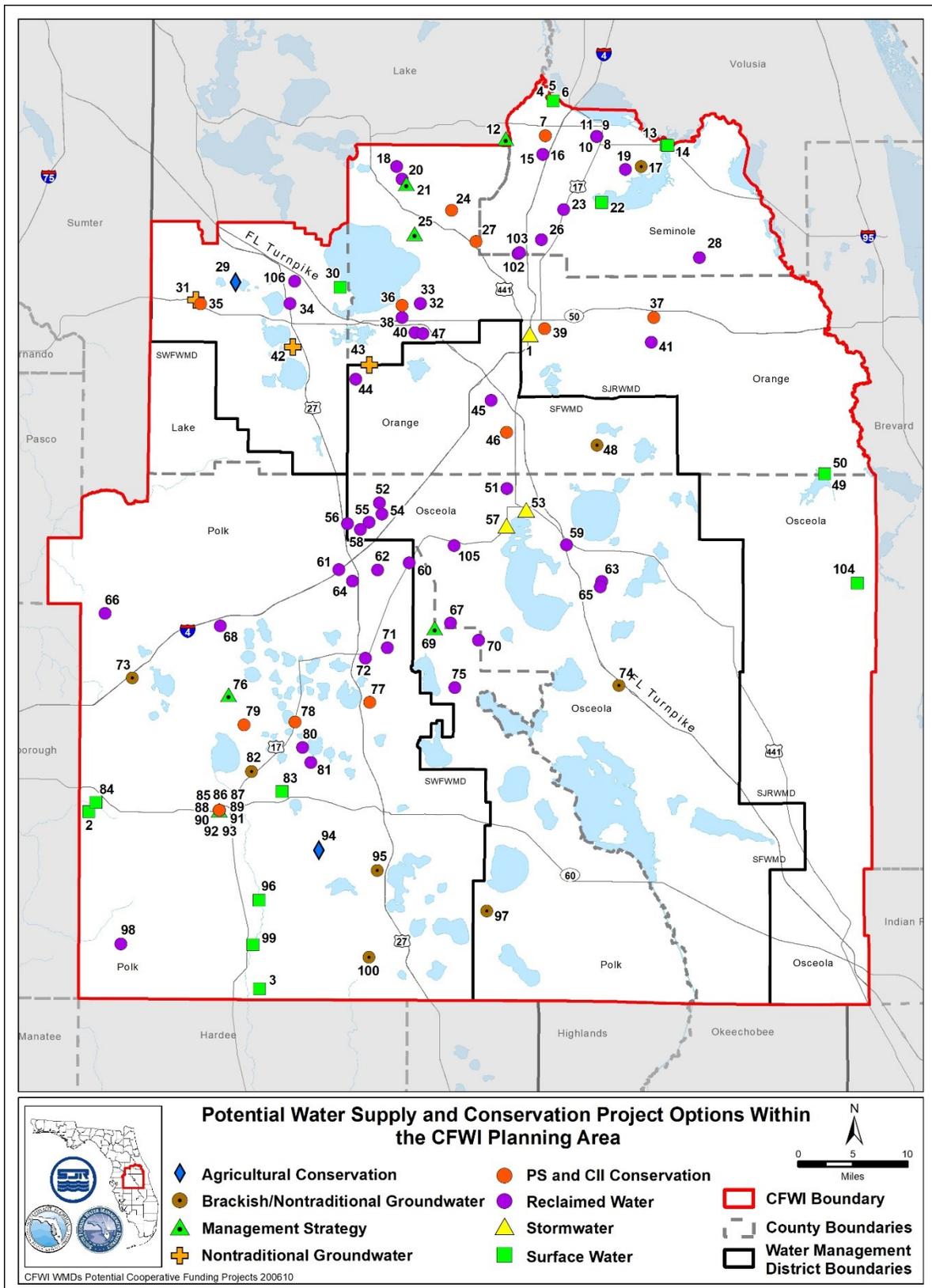


Figure E-1. Map of all CFWI Water Supply Project Options. Numbers correspond to the CFWI RWSP project numbers in **Table E-1**.

Table E-1. Potential water supply and water conservation project options within the CFWI Planning Area Figure E-1 Crosswalk.

Project Map ID	RWSP Project Number	County	District	Project Name	Implementing Agency or Entity	Project Type
1	2015_148	Orange, Osceola, Polk, Seminole, Lake	SJRWMD, SFWMD, SWFWMD	FDOT Reuse projects	FDOT, SJRWMD, SFWMD, SWFWMD	Stormwater
2	2015_134	Polk	SWFWMD	Tampa Bay Water/Polk Regional Water Cooperative Joint Water Supply Partnership	PRWC, TBW	Surface Water
3	2015_133	Polk	SWFWMD	Peace River Manasota RWSA / Polk Regional Water Cooperative Joint Water Supply Partnership	PCU, PRMRWSA	Surface Water
4	2015_138a	Seminole	SJRWMD	St. Johns River Near Yankee Lake – Option 1	Seminole County, SJRWMD	Surface Water
5	2015_138b	Seminole	SJRWMD	St. Johns River Near Yankee Lake – Option 2	Seminole County, SJRWMD	Surface Water
6	2015_138c	Seminole	SJRWMD	St. Johns River Near Yankee Lake – Option 3	Seminole County, SJRWMD	Surface Water
7	2020_17	Seminole	SJRWMD	Seminole County Conservation Tool	Seminole County	PS and CII Conservation
8	2015_110	Seminole	SJRWMD	Site 10 Pond Expansion	Sanford	Reclaimed Water
9	2015_111	Seminole	SJRWMD	Reclaimed Water Orlando-Sanford International Airport Interconnection	City of Sanford	Reclaimed Water
10	2015_112	Seminole	SJRWMD	Lake Mary Reclaimed Water System Retrofit	Sanford and Lake Mary	Reclaimed Water
11	2015_115	Seminole	SJRWMD	Mill Creek Pond Expansion	City of Sanford	Reclaimed Water
12	2020_58	Lake	SJRWMD	Wekiva Falls RV Resort	Wekiva Fall RV Resort, LLC	Management Strategy
13	2015_137	Seminole	SJRWMD	Sanford ASR Well for Surface Potable Water Storage	Sanford	Surface Water
14	2015_135	Seminole	SJRWMD	St. Johns River Near SR 46	Orange County, Casselberry, Deltona, Maitland, Oviedo, and Sanford	Surface Water
15	2015_120	Seminole	SJRWMD	Seminole County Residential Reclaimed Water Retrofit Project - Phase IV	Seminole County	Reclaimed Water
16	2015_121	Seminole	SJRWMD	Seminole County Residential Reclaimed Water Retrofit Project - Phase V	Seminole County	Reclaimed Water

Table E-1. Potential water supply and water conservation project options within the CFWI Planning Area Figure E-1 Crosswalk.

Project Map ID	RWSP Project Number	County	District	Project Name	Implementing Agency or Entity	Project Type
17	2020_2	Seminole	SJRWMD	City of Sanford Brackish RO WTP	Sanford, City of	Brackish Groundwater
18	2020_35	Lake	SJRWMD	Mount Dora RCW Interconnect with Apopka	Mount Dora, City of	Reclaimed Water
19	2020_37	Seminole	SJRWMD	Sanford RCW Orl-Sanford Airport Phase 2	Sanford, City of	Reclaimed Water
20	2020_39	Orange	SJRWMD	Apopka Cost Share Golden Gem Road (Rd) Reclaimed Water (RCW) Extension	Apopka, City of	Reclaimed Water
21	2020_56	Orange	SJRWMD	Golden Gem Road RW Pond	City of Apopka, SJRWMD	Management Strategy
22	2015_139	Seminole	SJRWMD	Winter Springs - Lake Jesup Reclaimed Water Augmentation Project	Winter Springs	Surface Water
23	2020_36	Seminole	SJRWMD	Longwood Septic Tank Abatement Program Transmission Main	Longwood, City of	Reclaimed Water
24	2020_9	Orange	SJRWMD	Orange County Utilities - Waterwise Neighbor Program	Orange County Utilities	PS and CII Conservation
25	2020_57	Orange	SJRWMD	Lake Apopka North Shore Recharge Well	SJRWMD	Management Strategy
26	2015_123	Seminole	SJRWMD	On-site storage pond (8.0 million gallons)	Altamonte Springs	Reclaimed Water
27	2020_10	Orange	SJRWMD	Orange County Utilities - Toilet Replacement Program	Orange County Utilities	PS and CII Conservation
28	2020_38	Seminole	SJRWMD	Chuluota RCW Storage Tank	Chuluota, City of	Reclaimed Water
29	2020_14	Lake	SJRWMD	Cherrylake Inc. Pressure Regulation	Cherrylake Inc.	Agricultural Conservation
30	2015_125	Lake	SJRWMD	Securing Minneola's Alternative Resources for Tomorrow (SMART) Project	Minneola	Surface Water
31	2020_3	Lake	SJRWMD	City of Mascotte Lower Floridan aquifer Wellfield	Mascotte, City of	Nontraditional Groundwater
32	2015_42	Orange	SJRWMD	City of Ocoee Northwest Reuse Re-Pump Station and Interconnection Mains	Ocoee	Reclaimed Water
33	2020_44	Orange	SJRWMD	The Hammocks - Reclaimed Water Retrofit Project	Ocoee, City of	Reclaimed Water
34	2020_43	Lake	SJRWMD	City of Minneola Septic to Sewer	Minneola, City of	Reclaimed Water
35	2020_15	Lake	SJRWMD	Mascotte SR50 Water Main Replacement-Ph1	Mascotte, City of	PS and CII Conservation
36	2020_13	Orange	SJRWMD	Winter Garden Water Conservation Program Expansion (Ph II)	Winter Garden, City of	PS and CII Conservation

Table E-1. Potential water supply and water conservation project options within the CFWI Planning Area Figure E-1 Crosswalk.

Project Map ID	RWSP Project Number	County	District	Project Name	Implementing Agency or Entity	Project Type
37	2020_12	Orange	SJRWMD	Orange County Utilities - Waterwise Neighbor Program (new & retrofit) Ph 2	Orange County Utilities	PS and CII Conservation
38	2020_40	Orange	SJRWMD	Winter Garden Reuse Distribution Retrofit	Winter Garden, City of	Reclaimed Water
39	2020_11	Orange	SJRWMD	OUC Irrigation Conservation Phase 2	Orlando Utilities Commission	PS and CII Conservation
40	2015_44	Orange	SJRWMD	Project RENEW	Orlando Utilities Commission	Reclaimed Water
41	2020_45	Orange	SJRWMD/SFWMD	City of Orlando Eastern Regional Reclaimed Water Distribution System Improvements	City of Orlando	Reclaimed Water
42	2015_1	Lake	SJRWMD	South Lake County Wellfield - Distributed	Minneola, Groveland, Clermont, Utilities, Inc of Florida	Nontraditional Groundwater
43	2020_4	Orange	SJRWMD	Orange County Utilities Malcom Rd Minimized Impact Project LFW	Orange County Utilities	Nontraditional Groundwater
44	2020_30	Orange	SFWMD	Horizon West Water Reclamation Facility	Orange County Utilities	Reclaimed Water
45	2020_31	Orange	SFWMD	South Water Reclamation Facility Ph. 5 Expansion	Orange County Utilities	Reclaimed Water
46	2020_16	Orange	SJRWMD	Orange County Utilities Waterwise Neighbor Program Year 3	Orange County Utilities	PS and CII Conservation
47	2020_42	Orange	SJRWMD	Ocoee Windermere Groves RCW Retrofit	Ocoee, City of	Reclaimed Water
48	2020_1	Orange	SFWMD/SJRWMD	OUC Southeast WTP LFA Wellfield	Orlando Utility Commission	Brackish Groundwater
49	2020_53	Orange	SJRWMD	Taylor Creek Reservoir Improvement Project	SJRWMD	Surface Water
50	2015_126	Orange	SJRWMD/SFWMD	St. Johns River / Taylor Creek Reservoir	City of Cocoa, East Central Florida Services, Orange County, OUC, TWA, Farmland Reserve	Surface Water
51	2015_58	Osceola	SFWMD	Harmony WWTP Expansion	Toho Water Authority	Reclaimed Water
52	2015_56	Osceola	SFWMD	Sandhill Road WRF Expansion Phase 1	Toho Water Authority	Reclaimed Water
53	2015_128	Osceola	SFWMD	Judge Farms Reservoir & Impoundment Project	Toho Water Authority	Stormwater
54	2015_55	Osceola	SFWMD	Sinclair Road Reuse Main Extension	Toho Water Authority	Reclaimed Water
55	2015_54	Osceola	SFWMD	Goodman Road Reuse Main Extension	Toho Water Authority	Reclaimed Water

Table E-1. Potential water supply and water conservation project options within the CFWI Planning Area Figure E-1 Crosswalk.

Project Map ID	RWSP Project Number	County	District	Project Name	Implementing Agency or Entity	Project Type
56	2015_60	Osceola	SFWMD	160-Acre Site AWS	Toho Water Authority	Reclaimed Water
57	2015_59	Osceola	SFWMD	West Ditch Stormwater for Reuse Augmentation	Toho Water Authority	Stormwater
58	2015_57	Osceola	SFWMD	Western Reuse Pumping Facility and Reuse Mains	Toho Water Authority	Reclaimed Water
59	2020_33	Osceola	SFWMD	C-31 Canal Extension - Reclaimed	St. Cloud	Reclaimed Water
60	2020_52	Polk	SFWMD	Polk County NERUSA Ridgewood and Loughman Reclaimed Water Transmission Supply	Polk County	Reclaimed Water
61	2020_46	Polk	SFWMD	Polk County NERUSA CR547 Reuse	Polk County	Reclaimed Water
62	2020_47	Polk	SFWMD	Polk County NERUSA Ernie Caldwell Reuse	Polk County	Reclaimed Water
63	2020_34	Osceola	SFWMD	Southern Water Reclamation Facility Reservoir Expansion	St. Cloud	Reclaimed Water
64	2020_51	Polk	SFWMD	Polk NERUSA FDC Grove Reuse	Polk County	Reclaimed Water
65	2020_32	Osceola	SFWMD	Sawgrass/Cord Avenue Reclaimed Main	St. Cloud	Reclaimed Water
66	2020_50	Polk	SFWMD	Polk Co Reclaimed Recharge Study in Polk NW Areas	Polk County	Reclaimed Water
67	2015_62	Osceola	SFWMD	Cypress West WRF Phase 1B	Toho Water Authority	Reclaimed Water
68	2015_64	Polk	SFWMD	Allred WWTP to Polytechnic Reclaimed Water Storage and Transmission Project (N536)	Auburndale	Reclaimed Water
69	2015_142	Polk	SFWMD	Joint Toho Water Authority/Polk County Supply	Toho Water Authority, PCU	Management Strategy
70	2015_63	Osceola	SFWMD	Walnut Drive WRF Reuse Storage Facility	Toho Water Authority	Reclaimed Water
71	2020_49	Polk	SFWMD	Haines City RW Storage and Pumping Expansion	Haines City	Reclaimed Water
72	2020_48	Polk	SFWMD	Haines City RW Recharge and AWT Feas	Haines City	Reclaimed Water
73	2020_5	Polk	SFWMD	West Polk LFA Deep Wells	PRWC	Brackish Groundwater
74	2015_3,4,5	Orange/ Osceola	SFWMD	Cypress Lake Wellfield, Treatment, and Booster Pump (Sum of CFWI 2015 RWSP Project Nos. 3, 4, and 5)	Water Cooperative of Central Florida and Reedy Creek Improvement District	Brackish Groundwater

Table E-1. Potential water supply and water conservation project options within the CFWI Planning Area Figure E-1 Crosswalk.

Project Map ID	RWSP Project Number	County	District	Project Name	Implementing Agency or Entity	Project Type
75	2015_61	Osceola	SFWMD	Lake Marion WRF Expansion Phase 1	Toho Water Authority	Reclaimed Water
76	2015_140	Polk	SFWMD	Wellfield Sharing	PRWC	Management Strategy
77	2020_24	Polk	SFWMD	Lake Hamilton Distribution System Looping	Lake Hamilton, City of	PS and CII Conservation
78	2020_23	Polk	SFWMD	Winter Haven Consumption/ Conservation Programs Data Management Software	Winter Haven, City of	PS and CII Conservation
79	2020_18	Polk	SFWMD	Polk County Landscape/Irrigation Evaluation Program	Polk County	PS and CII Conservation
80	2015_101	Polk	SFWMD	Winter Haven Reuse Interconnect & Aquifer Recharge	Winter Haven/ PRWC	Reclaimed Water
81	2015_103	Polk	SFWMD	Winter Haven Plant #3 WWTP 2015 Expansion/Inter City of Winter Haven System	Winter Haven	Reclaimed Water
82	2020_7	Polk	SFWMD	Lower Floridan Exploration in Central Polk County	SFWMD	Brackish Groundwater
83	2015_146	Polk	SFWMD	Peace Creek Integrated Water Supply Project (Sapphire Necklace)	PRWC, Winter Haven	Surface Water
84	2015_150	Polk	SFWMD	Polk County Regional Alafia River Basin	PRWC	Surface Water
85	2015_141	Polk	SFWMD	Regional Water Grid System	PRWC	Management Strategy
86	2020_19	Polk	SFWMD	Polk County Landscape & Irrigation Eval Program	Polk County	PS and CII Conservation
87	2020_20	Polk	SFWMD	Polk County Landscape and Irrigation Evaluation	Polk County	PS and CII Conservation
88	2020_21	Polk	SFWMD	PRWC Indoor Water Conservation Incentives	Polk Regional Water Cooperative	PS and CII Conservation
89	2020_22	Polk	SFWMD	PRWC Outdoor Best Management Practices	Polk Regional Water Cooperative	PS and CII Conservation
90	2020_25	Polk	SFWMD	CFWI Springs Conservation PRWC Polk Outdoor BMPs	Polk Regional Water Cooperative, Department Environmental Protection	PS and CII Conservation

Table E-1. Potential water supply and water conservation project options within the CFWI Planning Area Figure E-1 Crosswalk.

Project Map ID	RWSP Project Number	County	District	Project Name	Implementing Agency or Entity	Project Type
91	2020_26	Polk	SWFWMD	PRWC Polk Indoor Conservation Incentives	Polk Regional Water Cooperative, Department Environmental Protection	PS and CII Conservation
92	2020_27	Polk	SWFWMD	CFWI Springs Conservation PRWC Polk FL Water Star Builder Rebates	Polk Regional Water Cooperative, Department Environmental Protection	PS and CII Conservation
93	2020_28	Polk	SWFWMD	PRWC Water Demand Management Plan	Polk Regional Water Cooperative	PS and CII Conservation
94	2020_29	Polk	SWFWMD	Ray Bob Groves Irrigation Distribution System Improvements	Ray Bob Groves, Inc	Agricultural Conservation
95	2020_8	Polk	SWFWMD	Lower Floridan Exploration Optical Borehole Imaging in Polk County	SWFWMD	Brackish Groundwater
96	2020_55	Polk	SWFWMD	Peace Creek Water Supply Project /Winter Haven Peace Creek Surface Water Storage	PRWC	Surface Water
97	2015_28	Polk	SFWMD	Southeast Polk County Wellfield	PRWC	Brackish Groundwater
98	2015_99	Polk	SWFWMD	Lakeland WWTP (Northside & Glendale) Reuse Expansion to TECO 2020 - 2030, City of Lakeland	TECO, Lakeland	Reclaimed Water
99	2020_54	Polk	SWFWMD	Peace River Land Use Transition Treatment Facility and Reservoir Project	PRWC	Surface Water
100	2020_6	Polk	SWFWMD	Hydrogeologic Investigation of the LFA in Polk County	SWFWMD	Brackish Groundwater
101	2015_144	Okeechobee/ Indian River	SFWMD/ SJRWMD	Grove Land Reservoir and Stormwater Treatment Areas	Grove Land Utilities	Surface Water
102	2020_52	Seminole	SJRWMD	Regional Water Reclamation Facility Improvement for AWT – Phase II	Altamonte Springs	Reclaimed Water
103	2020_59	Seminole	SJRWMD	pureALTA	Altamonte Springs	Reclaimed Water
104	2020_60	Osceola	SJRWMD	Pennywash/Wolf Creek Reservoir	East Central Florida Services, Inc.	Surface Water Storage

Table E-1. Potential water supply and water conservation project options within the CFWI Planning Area Figure E-1 Crosswalk.

Project Map ID	RWSP Project Number	County	District	Project Name	Implementing Agency or Entity	Project Type
105	2020_61	Osceola	SFWMD	Central Reclaimed Water Storage and Pumping Facility	Toho Water Authority	Reclaimed Water
106	2020_62	Lake	SFWMD	Minneola SMART – Pipeline Interconnection of WRF to Reclaimed Water Distribution System	Minneola, City of	Reclaimed Water

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Table E-2. Updated summary of CFWI RWSP water supply and water resource development project options: Brackish/Nontraditional Groundwater Projects.

RWSP Project #	DEP Project ID	County	District	Project Name	Implementing Agency or Entity	Project Description	Project Capacity (mgd)	Generated or Water Resource Benefit (mgd)	Total Capital Cost (\$M)	Unit Production Cost (\$/1,000 gallons)	Estimated Completion Date	Project Status	Water Supply or Water Resource Development Project
2015_1	SJ00218A	Lake	SJRWMD	South Lake County Wellfield - Distributed	Minneola, Groveland, Clermont, Utilities, Inc of Florida	LFA wellfield (fresh) co-located at existing UFA wellfield sites. Participants include Groveland (2 sites), Minneola (2 sites), Clermont (2 sites) (SJ00166A) and Utilities Inc. of Florida (3 sites).	12.70	12.70	\$29.12	\$0.36	2022	Construction /Underway	WSDP
2015_28	-	Polk	SFWMD	Southeast Polk County Wellfield	PRWC	LFA wellfield, 25 miles of transmission lines, and membrane treatment to meet regional demands.	37.50	30.00	\$352.39	\$3.08	Phase I: 2023, Phase II: 2033, Comp: 2049	Construction /Underway	WSDP
2015_3,4,5	SF00288A	Orange/Osceola	SFWMD	Cypress Lake Wellfield, Treatment, and Booster Pump (Sum of CFWI 2015 RWSP Project Nos. 3, 4, and 5)	Water Cooperative of Central Florida	LFA wellfield, RO treatment, and pump station that will take treated brackish water and deliver it to customers.	37.50	30.00	\$406.74	\$3.88	2026	Planning	WSDP
2020_1	-	Orange	SFWMD/ SUBWMD	OUC Southeast WTP LFA Wellfield	Orlando Utility Commission	LFA wellfield and membrane treatment at the Southeast Water Treatment Facility. Currently this facility is a repump station.	20.00	20.00	\$153.53	\$3.64	12/31/2027	Planning	WSDP
2020_2	-	Seminole	SJRWMD	City of Sanford Brackish RO WTP	Sanford, City of	LFA wellfield and RO treatment.	1.00	1.00	\$11.33	\$3.95	3/31/2023	Planning	WSDP
2020_3	-	Lake	SJRWMD	City of Mascotte Floridan Aquifer Wellfield	Mascotte, City of	LFA wellfield (fresh) co-located at existing UFA wellfield sites.	1.00	1.00	\$4.50	\$0.65	12/31/2020	Planning	WSDP

Table E-2. Updated summary of CFWI RWSP water supply and water resource development project options: Brackish/Nontraditional Groundwater Projects.

RWSP Project #	DEP Project ID	County	District	Project Name	Implementing Agency or Entity	Project Description	Project Capacity (mgd)	Generated or Water Resource Benefit (mgd)	Total Capital Cost (\$M)	Unit Production Cost (\$/1,000 gallons)	Estimated Completion Date	Project Status	Water Supply or Water Resource Development Project
2020_4	SJ00123A	Orange	SJRWMD	Orange County Utilities Malcolm Rd Minimized Impact Project LFW	Orange County Utilities	LFA well at the planned Malcolm Road Water Supply Facility.	4.00	4.00	\$1.50	ND	7/1/2018	Construction /Underway	WSDP
2020_5	SW00136I	Polk	SWFWMD	West Polk LFA Deep Wells	PRWC	LFA wellfield, RO treatment, deep well concentrate disposal, and transmission and distribution pipelines.	18.50	15.00	\$166.75	\$3.01	Phase I: 2021 Phase II Comp 2049	Planning	WSDP
2020_6	SW00136F	Polk	SWFWMD	Hydrogeologic Investigation of the LFA in Polk County	SWFWMD	Exploration and testing of LFA at 3 sites to determine potential for regional supply.	NA	NA	\$11.99	NA	12/31/2021	Construction /Underway	WRDP
2020_7	SW00136A	Polk	SWFWMD	Lower Floridan Exploration in Central Polk County	SWFWMD	Exploration and testing of LFA in support of project 2020_6.	NA	NA	\$0.24	NA	10/1/2018	Construction /Underway	WRDP
2020_8	SW00136B	Polk	SWFWMD	Lower Floridan Exploration Optical Borehole Imaging in Polk County	SWFWMD	Optical borehole study of LFA in support of project 2020_6.	NA	NA	\$0.17	NA	9/30/2020	Construction /Underway	WRDP
				TOTAL			132.20	113.70	\$1,138.26				

Table E-3. Updated summary of CFWI RWSP water supply and water resource development project options: Water Conservation Projects.

RWSP Project #	DEP Project ID	County	District	Project Name	Implementing Agency or Entity	Project Description	Project Capacity (mgd)	Generated or Water Resource Benefit (mgd)	Total Capital Cost (\$M)	Unit Cost (\$/1,000 gallons)	Estimated Completion Date	Project Status	Water Supply or Water Resource Development
2020_9	SJ00183A	Orange	SJRWMD	Orange County Utilities - Waterwise Neighbor Program	Orange County Utilities	Year 1, Rebate program for indoor high efficiency plumbing fixtures and advanced irrigation equipment in new construction (300) and existing homes (300).	NA	0.00	\$0.41	ND	9/1/2018	Construction /Underway	WSDP
2020_10	SJ00184A	Orange	SJRWMD	Orange County Utilities - Toilet Replacement Program	Orange County Utilities	High efficiency toilet rebate retrofit program (200).	NA	0.00	\$1.18	ND	9/1/2018	Construction /Underway	WSDP
2020_11	SJ00189A	Orange	SJRWMD	OUC Irrigation Conservation Phase 2	Orlando Utilities Commission	Phase 2 of OUC's water conservation program targeting high use residential and commercial customers. Toilet rebates and the purchase of an online water survey tool is also included in Phase 2.	NA	0.06	\$0.62	ND	3/28/2020	Construction /Underway	WSDP
2020_12	SJ00194A	Orange	SJRWMD	Orange County Utilities - Waterwise Neighbor Program (new & retrofit) Ph 2	Orange County Utilities	Year 2, Rebate program for indoor high efficiency plumbing fixtures and advanced irrigation equipment in new construction (300) and existing homes (300).	NA	0.15	\$1.25	ND	9/1/2019	Construction /Underway	WSDP
2020_13	SJ00204A	Orange	SJRWMD	Winter Garden Water Conservation Program Expansion (Ph II)	Winter Garden, City of	Phase 2 expands the City's water conservation software system which allows customers to securely access hourly, daily, and monthly usage, as well as, be alerted to water leaks via portal or in receipt of email or text alerts.	NA	0.06	\$2.36	ND	9/1/2018	Construction /Underway	WSDP

Table E-3. Updated summary of CFWI RWSP water supply and water resource development project options: Water Conservation Projects.

RWSP Project #	DEP Project ID	County	District	Project Name	Implementing Agency or Entity	Project Description	Project Capacity (mgd)	Generated or Water Resource Benefit (mgd)	Total Capital Cost (\$M)	Unit Cost (\$/1,000 gallons)	Estimated Completion Date	Project Status	Water Supply or Water Resource Development
2020_14	SJ00258A	Lake	SJRWM	Cherrylake Inc. Pressure Regulation	Cherrylake Inc.	Pressure regulation for agricultural irrigation system	NA	0.28	\$0.41	ND	9/30/2020	Construction /Underway	WSDP
2020_15	SJ00276A	Lake	SJRWM	Mascotte SR50 Water Main Replacement-Ph1	Mascotte, City of	The project replaces 7,800 LF of leaking water main.	NA	0.05	\$1.00	ND	3/29/2019	Construction /Underway	WSDP
2020_16	SJ00280A	Orange	SJRWM	Orange County Utilities Waterwise Neighbor Program Year 3	Orange County Utilities	Year 3, Rebate program for indoor high efficiency plumbing fixtures and advanced irrigation equipment in new construction (300) and existing homes (300).	NA	0.11	\$0.30	ND	3/31/2020	Construction /Underway	WSDP
2020_17	SJ00283A	Seminole	SJRWM	Seminole County Conservation Tool	Seminole County	Purchase of the UF water conservation software that allows the County to inform higher-water use customers of their conservation potential and conservation programs or educational sessions.	NA	0.30	\$0.41	ND	9/30/2020	Construction /Underway	WSDP

Table E-3. Updated summary of CFWI RWSP water supply and water resource development project options: Water Conservation Projects.

RWSP Project #	DEP Project ID	County	District	Project Name	Implementing Agency or Entity	Project Description	Project Capacity (mgd)	Generated or Water Resource Benefit (mgd)	Total Capital Cost (\$M)	Unit Cost (\$/1,000 gallons)	Estimated Completion Date	Project Status	Water Supply or Water Resource Development
2020_18	SW00370A	Polk	SWFWMD	Polk County Landscape and Irrigation Evaluation Program	Polk County	Irrigation system evaluations to single family, multi-family, and commercial customers (200), 100 rain sensor replacements, and distribute 200 conservation kits, and educational materials, program promotion, and surveys.	NA	0.03	\$0.06	\$1.31	5/31/2019	Construction /Underway	WSDP
2020_19	SW00375A	Polk	SWFWMD	Polk County Landscape and Irrigation Evaluation Program	Polk County	Irrigation system evaluations to single family, multi-family, and commercial customers (300), 150 rain sensor replacements, and distribute 300 conservation kits, and educational materials, program promotion, and surveys.	NA	0.04	\$0.08	\$1.31	12/31/2019	Construction /Underway	WSDP
2020_20	SW00378A	Polk	SWFWMD	Polk County Landscape and Irrigation Evaluation Program	Polk County	Irrigation system evaluations to single family, multi-family, and commercial customers (300), 150 rain sensor replacements, and distribute 300 conservation kits, and educational materials, program promotion, and surveys.	NA	0.04	\$0.09	\$1.39	12/1/2020	Construction /Underway	WSDP
2020_21	SW00388A	Polk	SWFWMD	PRWC Indoor Water Conservation Incentives	Polk Regional Water Cooperative	Residential high efficiency toilet rebates (1,120), 2,400 conservation kits and enhanced educational kits will also be distributed.	NA	0.09	\$0.16	\$1.87	3/1/2021	Construction /Underway	WSDP

Table E-3. Updated summary of CFWI RWSP water supply and water resource development project options: Water Conservation Projects.

RWSP Project #	DEP Project ID	County	District	Project Name	Implementing Agency or Entity	Project Description	Project Capacity (mgd)	Generated or Water Resource Benefit (mgd)	Total Capital Cost (\$M)	Unit Cost (\$/1,000 gallons)	Estimated Completion Date	Project Status	Water Supply or Water Resource Development
2020_22	SW00392A	Polk	SWFWMD	PRWC Outdoor Best Management Practices	Polk Regional Water Cooperative	Outdoor irrigation and landscape rebate program. Includes 7 Florida-Friendly Landscape™ (FFL) rebates of up to \$2,000 (based on landscaped area), 200 smart irrigation ET controllers (homeowner education), 400 wireless rain sensors, 300 irrigation evaluations with education and rain sensor installation as needed.	NA	0.11	\$0.19	\$2.18	3/1/2022	Construction /Underway	WSDP
2020_23	SW00394A	Polk	SWFWMD	Winter Haven Consumption/ Conservation Programs Data Management Software	Winter Haven, City of	Implement a water conservation software system which allows customers to securely access usage data including potential water leaks, compare water use with neighbors, water restrictions, and promote utility conservation incentives, etc. via a portal (19,000).	NA	0.02	\$0.12	\$5.00	3/1/2021	Construction /Underway	WSDP
2020_24	SW00399A	Polk	SWFWMD	Lake Hamilton Distribution System Looping	Lake Hamilton, City of	Design, permitting, and construction of 5,200 feet of new potable water lines and associated components to eliminate dead ends which will reduce line flushing in 5 areas.	NA	0.02	\$0.52	\$6.43	12/1/2020	Construction /Underway	WSDP

Table E-3. Updated summary of CFWI RWSP water supply and water resource development project options: Water Conservation Projects.

RWSP Project #	DEP Project ID	County	District	Project Name	Implementing Agency or Entity	Project Description	Project Capacity (mgd)	Generated or Water Resource Benefit (mgd)	Total Capital Cost (\$M)	Unit Cost (\$/1,000 gallons)	Estimated Completion Date	Project Status	Water Supply or Water Resource Development
2020_25	SW00401A	Polk	SWFWMD	CFWI Springs Conservation PRWC Polk Outdoor BMPs	Polk Regional Water Cooperative, Department Environmental Protection	Outdoor irrigation and landscape rebate program. Includes 50 Florida-Friendly Landscape™ (FFL) rebates of up to \$2,000 (based on landscaped area), 220 smart irrigation ET controllers (homeowner education), and 590 wireless rain sensors including education during installation.	NA	0.05	\$0.33	\$1.80	12/1/2020	Construction /Underway	WSDP
2020_26	SW00402A	Polk	SWFWMD	PRWC Polk Indoor Conservation Incentives	Polk Regional Water Cooperative, Department Environmental Protection	Residential high efficiency toilet rebates (1,500 total or 300 units), and 1,300 conservation kits and educational materials distributed.	NA	0.09	\$0.24	\$0.46	10/1/2019	Construction /Underway	WSDP
2020_27	SW00403A	Polk	SWFWMD	CFWI Springs Conservation PRWC Polk FL Water Star Builder Rebates	Polk Regional Water Cooperative, Department Environmental Protection	Provide 500 rebates (up to \$700) to home builders who build homes to Florida Water Star SM standards and submit proof of Florida Water Star SM certification. DEP funded, District/County providing program administration.	NA	0.07	\$0.70	\$2.02	10/1/2019	Construction /Underway	WSDP
2020_28	SW00354A	Polk	SWFWMD	PRWC Water Demand Management Plan	Polk Regional Water Cooperative	Demand Management Plan to assess available water conservation potential and provide a long-term demand management implementation strategy, including an economic analysis between AWS and water conservation projects.	NA	TBD	\$0.34	NA	2020	Construction /Underway	WSDP

Table E-3. Updated summary of CFWI RWSP water supply and water resource development project options: Water Conservation Projects.

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2020_29	-	Polk	SWFWMD	Ray Bob Groves Irrigation Distribution System Improvements	Ray Bob Groves, Inc	Agricultural irrigation system improvements for a 149-acre citrus grove to improve the uniformity and efficiency of irrigation.	NA	0.03	\$0.46	\$2.98	20220	Planning	WRDP
				TOTALS			0.00	1.60	\$11.22				

Table E-4. Updated summary of CFWI RWSP water supply and water resource development project options: Reclaimed Water Projects.

RWSP Project #	DEP Project ID	County	District	Project Name	Implementing Agency or Entity	Project Description	Project Capacity (mgd)	Generated or Water Resource Benefit (mgd)	Total Capital Cost (\$M)	Unit Cost (\$/1,000 gallons)	Estimated Completion Date	Project Status	Water Supply or Water Resource Development
2015_42	SI00219A	Orange	SIRWMD	City of Ocoee Northwest Reuse Re-Pump Station and Interconnection Mains	Ocoee	Construction of reclaimed water transmission pipelines and pump stations and an interconnect for up to 1 mgd of reclaimed water from OCU NWRf to Ocoee.	1.00 to 4.00	0.60	\$4.78	\$0.25	2028	Construction /Underway	WSDP
2015_44	SI00220A	Orange	SIRWMD	Project RENEW	Orlando Utilities Commission	Regional reclaimed water project originally planned to provide 9.2 mgd of reclaimed water from the City of Orlando's Iron Bridge WRF to Northwest Orange County. The project will be re-evaluated to determine the best location(s) for reuse in the region.	Phase I – 3.00 Phase II– 9.20	9.20	\$57.55	\$1.41	TBD	Concept	WSDP
2015_54	-	Osceola	SFWMD	Goodman Road Reuse Main Extension	Toho Water Authority	Extend a 24-inch reclaimed water main 7,000 LF from Tri-County Road to Happy Trails. This project, in conjunction with the Western Reclaimed Water Pump Station project, will enable reuse from the South Bermuda WRF to be used in the Sandhill service area. The project may eliminate the need for the Indian Ridge Reuse Augmentation Facility.	4.00	0.00	\$3.69	NA	NA	Planning	WSDP
2015_55	-	Osceola	SFWMD	Sinclair Road Reuse Main Extension	Toho Water Authority	Construct 9,500 LF of 16-inch reclaimed water main from Tri-County Road to interconnect South Bermuda WRF service area to Sandhill WRF service area. The project may eliminate the need for the Indian Ridge Reuse Augmentation Facility.	0.40	0.00	\$5.39	NA	NA	Planning	WSDP

Table E-4. Updated summary of CFWI RWSP water supply and water resource development project options: Reclaimed Water Projects.

RWSP Project #	DEP Project ID	County	District	Project Name	Implementing Agency or Entity	Project Description	Project Capacity (mgd)	Generated or Water Resource Benefit (mgd)	Total Capital Cost (\$M)	Unit Cost (\$/1,000 gallons)	Estimated Completion Date	Project Status	Water Supply or Water Resource Development
2015_56	-	Osceola	SFWMD	Sandhill Road WRF Expansion	Toho Water Authority	Construct a 4.5 mgd reclaimed water storage tank and required appurtenances at the Sandhill Road WRF. Treatment capacity expansion	4.50	0.00	\$1.50	NA	NA	Design	WSDP
2015_57	-	Osceola	SFWMD	Western Reuse Pumping Facility and Reuse Mains	Toho Water Authority	Construct a 4 mgd reclaimed water storage tank, pumps, a pump building, and components. Construct 3,800 LF of 36-inch and 24-inch low pressure reclaimed water main to be routed from the existing Imperial Pump Station to the proposed Western Reuse Pumping Facility.	4.00	0.00	\$10.98	NA	NA	Design	WSDP
2015_58	-	Osceola	SFWMD	Harmony WWTP Expansion	Toho Water Authority	Construct a reclaimed water wet weather storage facility in conjunction with the WWTP expansion.	0.499	0.00	\$0.93	NA	NA	Compete	WSDP
2015_60	-	Osceola	SFWMD	160-Acre Site AWS	Toho Water Authority	Construction of five (5) 1 mgd wells and appurtenances along the 160-acre site (RIBs) to withdraw groundwater as indirect potable reuse or irrigation supply. Construct 30,000 LF of 24-inch raw water main to the Southwest WTP.	5.00	5.00	\$16.19	\$3.52	NA	Pilot testing as Indirect Potable Reuse	WSDP
2015_61	-	Osceola	SFWMD	Lake Marion WRF Expansion Phase 1	Toho Water Authority	Construct a 2.5 mg reclaimed water storage tank and reclaimed water pumping system at the Lake Marion WRF.	2.50	0.00	\$4.68	NA	NA	Construction /Underway	WSDP

Table E-4. Updated summary of CFWI RWSP water supply and water resource development project options: Reclaimed Water Projects.

RWSP Project #	DEP Project ID	County	District	Project Name	Implementing Agency or Entity	Project Description	Project Capacity (mgd)	Generated or Water Resource Benefit (mgd)	Total Capital Cost (\$M)	Unit Cost (\$/1,000 gallons)	Estimated Completion Date	Project Status	Water Supply or Water Resource Development
2015_62	--	Osceola	SFWMD	Cypress West WRF Phase 1B	Toho Water Authority	Construct a 2.0 mg reclaimed water storage tank and pumping system at the Cypress West WRF and the plant expansion.	6.00	0.00	\$3.75	NA	NA	Construction /Underway	WSDP
2015_63	--	Osceola	SFWMD	Walnut Drive WRF Reuse Storage Facility	Toho Water Authority	Construct two 7.5 mg reclaimed water storage tanks and necessary appurtenances at the Walnut Dr. WRF.	5.00	0.00	\$6.95	NA	NA	Planning	WSDP
2015_64	SW00126A	Polk	SFWFMD	Allred WWTP to Polytechnic Reclaimed Water Storage and Transmission Project (N536)	Auburndale	Project provides 1.5 mgd of reclaimed water for irrigation uses at Florida Polytechnic University and Lake Myrtle Park.	1.50	1.13	\$3.26	\$0.72	2020	Construction /Underway	WSDP
2015_99	SW00048A	Polk	SFWFMD	Lakeland WWTP (Northside & Glendale) Reuse Expansion. to TECO 2020 - 2030, City of Lakeland	TECO, Lakeland	Expansion of RO treatment facility for future flow increases from existing transmission lines.	7.00	7.00	\$53.00	TBD	2025-2030	Planning	WSDP
2015_101	SW00133A	Polk	SFWFMD	Winter Haven Reuse Interconnect & Aquifer Recharge	Winter Haven/ PRWC	Site feasibility investigation (N796) of an aquifer recharge project using reclaimed water provided by the City's Wastewater Treatment Plant No. 3.	0.50	0.50	\$0.30	\$1.25	TBD	Design	WSDP
2015_103	SW00097A	Polk	SFWFMD	Winter Haven Plant #3 WWTP 2015 Expansion/Interconnect, City of Winter Haven System	Winter Haven	Construction of interconnect between the City's two reclaimed water systems, including transmission mains, pump station, and a 5 mg storage tank.	0.30	0.15	\$10.29	\$16.69	2023	Construction /Underway	WSDP

Table E-4. Updated summary of CFWI RWSP water supply and water resource development project options: Reclaimed Water Projects.

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2015_110	-	Seminole	SIRWMD	Site 10 Pond Expansion	Sanford	Expansion of reclaimed water storage at Site 10 to address TMDLs within Lake Jesup basin. This project will facilitate the Sanford/Volusia County reclaimed water interconnect and may provide reclaimed water to Oviedo, Winter Springs, and Casselberry.	NA	Storage	\$9.60	\$1.11	TBD	Concept	WSDP
2015_111	-	Seminole	SIRWMD	Reclaimed Water Orlando-Sanford International Airport Interconnection	City of Sanford	Extension of the existing SSWRC reclaimed water line to connect to the existing 16-inch reclaimed water line on Victoria Street, irrigation pipeline installation within and around the Airport.	1.50	1.12	\$8.47	\$1.11	TBD	Concept	WSDP
2015_112	SJ00223A	Seminole	SIRWMD	Lake Mary Reclaimed Water System Retrofit	Sanford and Lake Mary	Retrofit the existing reclaimed water system in subdivisions of Hills of Lake Mary, Tuscany, Manderley, Reserve, Timacuan, and Woodbridge and expand the reclaimed water distribution system of Lake Mary.	0.60	0.36	\$5.53	\$1.11	TBD	Concept	WSDP
2015_115	-	Seminole	SIRWMD	Mill Creek Pond Expansion	City of Sanford	Increase the Mill Creek pond storage volume by building up the berm.	NA	Storage	\$0.39	\$1.11	TBD	Concept	WSDP
2015_120	SJ0025A	Seminole	SIRWMD	Seminole County Residential Reclaimed Water Retrofit Project - Phase IV	Seminole County	Construct reclaimed water distribution lines for landscape irrigation in several Heathrow communities.	0.30	0.18	\$2.17	\$0.83	TBD	Concept	WSDP

Table E-4. Updated summary of CFWI RWSP water supply and water resource development project options: Reclaimed Water Projects.

RWSP Project #	DEP Project ID	County	District	Project Name	Implementing Agency or Entity	Project Description	Project Capacity (mgd)	Generated or Water Resource Benefit (mgd)	Total Capital Cost (\$M)	Unit Cost (\$/1,000 gallons)	Estimated Completion Date	Project Status	Water Supply or Water Resource Development
2015_121	:	Seminole	SJRWMD	Seminole County Residential Reclaimed Water Retrofit Project - Phase V	Seminole County	Construct reclaimed water distribution lines for landscape irrigation in several Heathrow communities.	0.70	0.42	\$4.56	\$0.83	TBD	Concept	WSDP
2015_123	:	Seminole	SJRWMD	On-site storage pond (8.0 million gallons)	Altamonte Springs	Construct 8.0 mg reclaimed water storage pond at WWTP to increase reuse and reduce discharges to the Little Wekiva River.	NA	Storage	\$3.26	\$0.05	TBD	Design	WSDP
2020_30	:	Orange	SFWMD	Horizon West Water Reclamation Facility	Orange County Utilities	Construct a new WRF in the Horizon West area.	5.00	NA	\$74.00	NA	8/1/2023	Planning	WSDP
2020_31	:	Orange	SFWMD	South Water Reclamation Facility Ph. 5 Expansion	Orange County Utilities	Expansion of the South Water Reclamation Facility from 43 mgd to 56 mgd	13.00	NA	\$84.70	NA	10/31/2020	Construction /Underway	WSDP
2020_32	:	Osceola	SFWMD	Sawgrass/Cord Avenue Reclaimed Main	St. Cloud	Install reclaimed water distribution lines along Sawgrass/Cord Avenue	3.00	NA	\$1.90	NA	1/1/2023	Planning	WSDP
2020_33	:	Osceola	SFWMD	Reclaimed Water Main along the St. Cloud Canal	St. Cloud	Install reclaimed water distribution lines along the St. Cloud Canal/C-31 Canal Extension	5.00	NA	\$5.00	NA	1/1/2021	Planning	WSDP

Table E-4. Updated summary of CFWI RWSP water supply and water resource development project options: Reclaimed Water Projects.

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2020_34	--	Osceola	SFWMD	Southern Water Reclamation Facility Reservoir Expansion	St. Cloud	Reclaimed water reservoir expansion at the Southern Water Reclamation Facility	2.00	NA	\$2.00	NA	1/1/2022	Planning	WSDP
2020_35	SI00188A	Lake	SJRWMD	Mount Dora RCW Interconnect with Apopka	Mount Dora, City of	Construct a reclaimed water interconnect between the City of Mt. Dora and City of Apopka.	3.00	3.00	\$1.10	ND	3/29/2019	Design	WSDP
2020_36	SI00193A	Seminole	SJRWMD	Longwood Septic Tank Abatement Program Transmission Main	Longwood, City of	Construct a 4-mile sewer transmission pipe connecting the City with the Altamonte Springs Regional Water Reclamation Facility. Project provides water quality and water supply with additional reclaimed water available to customers.	0.70	0.70	\$4.66	ND	12/30/2019	Construction /Underway	WSDP
2020_37	SI00198A	Seminole	SJRWMD	Sanford RCW Orl-Sanford Airport Phase 2	Sanford, City of	Construct reclaimed water distribution line along Lake Mary Blvd from the Sanford Water Resource Center to the Brisson West Development and Silvestry Development.	0.10	0.10	\$0.41	ND	2/28/2019	Construction /Underway	WSDP
2020_38	SI00199A	Seminole	SJRWMD	Chuluota RCW Storage Tank	Chuluota, City of	Construct a 0.5 mg reclaimed water storage tank, associated pumping facilities, and modification and reactivation of the existing pond and pump station at the Chuluota WWTP site.	0.15	0.15	\$1.18	ND	8/1/2018	Construction /Underway	WSDP

Table E-4. Updated summary of CFWI RWSP water supply and water resource development project options: Reclaimed Water Projects.

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2020_39	SJ00208A	Orange	SJRWMD	Apopka Cost Share Golden Gem Road (Rd) Reclaimed Water (RCW) Extension	Apopka, City of	Construct 10,500 LF of reclaimed water distribution line along Golden Gem Road between Ponkan Road and Kelly Park Road, a pump station, and storage pond.	5.00	5.00	\$0.62	ND	12/31/2018	Construction /Underway	WSDP
2020_40	SJ00212A	Orange	SJRWMD	Winter Garden Reuse Distribution Retrofit	Winter Garden, City of	Construct 221 reclaimed water retrofits in the Stonybrook West community (final phase).	0.10	0.10	\$1.25	ND	6/30/2019	Construction /Underway	WSDP
2020_41	SJ00279A	Orange	SJRWMD	Ocoee Windermere Groves RCW Retrofit	Ocoee, City of	Construct 128 reclaimed water retrofits in the Windermere Groves neighborhood.	0.02	0.02	\$0.41	ND	9/30/2019	Design	WSDP
2020_42	-	Lake	SJRWMD	City of Minneola Septic to Sewer (Phase 1 -10)	Minneola, City of	Phased project to convert septic tanks to the centralized sewer system. This project has water quality and water supply benefit by increasing wastewater flows, to send to reclaimed water to over 160 businesses and 3,500 homes.	0.80	0.80	\$50.00	NA	2040	Planning	WSDP
2020_43	-	Orange	SJRWMD	The Hammocks - Reclaimed Water Retrofit Project	Ocoee, City of	Construct 125 reclaimed water retrofits for landscape irrigation in the Hammocks neighborhood.	0.05	0.05	\$0.40	\$1.43	8/31/2020	Design	WSDP

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2020_44	--	Orange	SJRWMD/SFWMD	City of Orlando Eastern Regional Reclaimed Water Distribution System Improvements	City of Orlando	Expansion of the City's ERRWDS service area by making hydraulic improvements to include a 3 mg reclaimed water storage tank and 6,000 gpm high service pump station(s). thereby increasing available reclaimed water supplies to City of Orlando, Orlando Utilities Commission, and Orange County Utilities customers.	30.00	17.00	\$9.40	N/A	12/31/2025	Planning	WSDP
2020_45	SW00149A	Polk	SWFWMD	Polk County NERUSA CR547 Reuse	Polk County	Construct 6,900 LF of reclaimed water distribution line to supply approximately 1,060 residential irrigation customers.	0.40	0.32	\$0.87	\$0.66	2020	Construction /Underway	WSDP
2020_46	SW00155A	Polk	SWFWMD	Polk County NERUSA Ernie Caldwell Reuse	Polk County	Construct 10,300 LF of 16- to 24-inch reclaimed water distribution line to supply approximately 1,100 residential irrigation customers in the Ridgewood Lake Area.	0.41	0.33	\$2.11	\$1.56	2020	Construction /Underway	WSDP
2020_47	SW00143A	Polk	SWFWMD	Haines City RW Recharge and AWT Feasibility Study	Haines City	Feasibility evaluation of reclaimed water recharge sites, components, and advanced treatment necessary to assist in meeting MFLs on Lake Eva.	0.00	0.00	\$0.30	NA	2020	Design	WRDP
2020_48	SW00144A	Polk	SWFWMD	Haines City RW Storage and Pumping Expansion	Haines City	Construct a reclaimed water transfer pump station, storage tank, high service pump station, booster station, and other necessary appurtenances.	0.00	0.00	\$6.16	\$0.00	2020	Construction /Underway	WSDP

Table E-4. Updated summary of CFWI RWSP water supply and water resource development project options: Reclaimed Water Projects.

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2020_49	SW00135A	Polk	SWFWMD	Polk Co Reclaimed Recharge Study in Polk NW Areas	Polk County	Feasibility study to develop reclaimed water aquifer recharge project concept to supplement Polk County's Northwest Regional Utility Service Area water supplies.	1.50	1.50	\$1.19	TBD	2020	Planning	WSDP
2020_50	SW00156A	Polk	SWFWMD	Polk NERUSA FDC Grove Reuse	Polk County	Construct 13,600 LF of 6- to 8-inch reclaimed water distribution line to supply approximately 400 residential irrigation customers.	0.14	0.14	\$1.70	\$2.96	2019	Construction /Underway	WSDP
2020_51	-	Polk	SWFWMD	Polk County NERUSA Ridgewood and Loughman Reclaimed Water Transmission Supply	Polk County	Construct 12,400 LF of 12- to 24-inch reclaimed water distribution line to supply approximately 915 residential irrigation customers.	0.35	0.28	\$2.50	\$2.17	2020	Construction /Underway	WSDP
2020_52	-	Seminole	SJRWMD	Regional Water Reclamation Facility Improvement for AWT – Phase II	Altamonte Springs	Phase II expands capacity from 9.0 mgd to 12.5 mgd and improves nutrient reduction (TN 6 ppm to 3 ppm and TP from 3 ppm to 1 ppm).	3.50	3.50	\$3.00	\$0.26	3/31/21	Bidding	WSDP
2020_59	-	Seminole	SJRWMD	pureALTA	Altamonte Springs	This phase is for the design and construction of a 0.3 to 0.5 mgd full-scale potable reuse project.	0.50	0.50	\$6.34	\$2.61	TBD	Design	WSDP
2020_61	X	Osceola	SFWMD	Central Reclaimed Water Storage and Pumping Facility	Toho Water Authority	Construct 26,000 LF of reclaimed water transmission pipeline, two 10 mg storage tanks, and 30 mgd of pumping capacity	14.00	14.00	\$25.00	\$1.79	2022	Planning	WSDP

Table E-4. Updated summary of CFWI RWSP water supply and water resource development project options: Reclaimed Water Projects.

RWSP Project #	DEP Project ID	County	District	Project Name	Implementing Agency or Entity	Project Description	Project Capacity (mgd)	Generated or Water Resource Benefit (mgd)	Total Capital Cost (\$M)	Unit Cost (\$/1,000 gallons)	Estimated Completion Date	Project Status	Water Supply or Water Resource Development
2020_62		Lake	SJRWMD	Minneola SMART – Pipeline Interconnection to WRF to Reuse Distribution System	Minneola, City of	Construct an interconnect pipeline between the City's WRF and the potable supply system and conversion of an existing pipeline, currently used for these purposes, to distribute public access reclaimed water from the WRF to end users.	0.3	1.0	\$2.20	\$0.85	2024	Planning	WSDP
					TOTALS		123.02 to 132.22	50.06	\$421.18				

Table E-5. Updated summary of CFWI RWSP water supply and water resource development project options: Surface Water Projects.

RWSP Project #	DEP Project ID	County	District	Project Name	Implementing Agency or Entity	Project Description	Project Capacity (mgd)	Generated or Water Resource Benefit (mgd)	Total Capital Cost (\$M)	Unit Cost (\$/1,000 gallons)	Estimated Completion Date	Project Status	Water Supply or Water Resource Development
2015_125	-	Lake	SIRWMD	Securing Minneola's Alternative Resources for Tomorrow (SMART) Project	Minneola	Construct an intake for surface water from Lake Apopka, surface water treatment, storage, and a reclaimed water transmission system.	5.00	5.00	\$29.01	\$5.43	TBD	Concept	WSDP
2015_126	SJ00241A	Orange	SIRWMD/ SFWMD	St. Johns River / Taylor Creek Reservoir	City of Cocoa, East Central Florida Services, Orange County, OUC, TWA, Farmland Reserve	Construct an intake structure, reservoir, treatment, storage and transmission facilities to withdraw from Taylor Creek Reservoir & the St. Johns River – regional project.	60.00	54.00	\$692.83	\$3.14	2030	Planning	WSDP
2015_133	SW00305A	Polk	SFWWMD	Peace River Manasota RWSA / Polk Regional Water Cooperative Joint Water Supply Partnership	PCU, PRMRWSA	Partnership to interconnect Polk Regional Water Cooperative to Peace River Manasota Regional Water Supply Authority system.	NA	5.10	NA	NA	NA	Concept	WSDP
2015_134	-	Polk	SFWWMD	Tampa Bay Water/Polk Regional Water Cooperative Joint Water Supply Partnership	PRWC, TBW	Partnership to interconnect Polk Regional Water Cooperative to Tampa Bay Water Regional system.	NA	NA	NA	NA	NA	Concept	WSDP

Table E-5. Updated summary of CFWI RWSP water supply and water resource development project options: Surface Water Projects.

RWSP Project #	DEP Project ID	County	District	Project Name	Implementing Agency or Entity	Project Description	Project Capacity (mgd)	Generated or Water Resource Benefit (mgd)	Total Capital Cost (\$M)	Unit Cost (\$/1,000 gallons)	Estimated Completion Date	Project Status	Water Supply or Water Resource Development
2015_135	:	Seminole	SJRWMD	St. Johns River Near SR 46	Orange County, Casselberry, Deltona, Maitland, Oviedo, and Sanford	Construct an intake for brackish surface water from the St. Johns River, water treatment and concentrate management facilities, point-of-connection ground storage, and a potable water transmission system. May also be used for reclaimed water supplementation.	50.00	40.00	\$634.94	\$5.09	TBD	Concept	WSDP
2015_137	:	Seminole	SJRWMD	Sanford ASR Well for Surface Potable Water Storage	Sanford	Store water withdrawn from a nontraditional source, most likely brackish surface water from the St. Johns River.	1.00	N/A	\$4.99	NA	TBD	Concept	WSDP
2015_138a	:	Seminole	SJRWMD	St. Johns River Near Yankee Lake – Option 1	Seminole County, SJRWMD	Expand the existing 5 mgd brackish surface water source at Yankee Lake Regional Surface WTP up to 45 mgd. Project includes additional treatment, ground storage and concentrate management. Project would provide potable water to various end users – Seminole County, Sanlando, Leesburg, LUSI, Apopka, and Volusia County.	50.00	40.00	\$614.5	\$4.36	TBD	Concept	WSDP
2015_138b	:	Seminole	SJRWMD	St. Johns River Near Yankee Lake – Option 2	Seminole County, SJRWMD	Option 2 is identical to Option 1 except for end users. Option 2 includes OUC instead of Volusia County.	N/A	N/A	\$583.19	\$4.36	TBD	Concept	WSDP

Table E-5. Updated summary of CFWI RWSP water supply and water resource development project options: Surface Water Projects.

RWSP Project #	DEP Project ID	County	District	Project Name	Implementing Agency or Entity	Project Description	Project Capacity (mgd)	Generated or Water Resource Benefit (mgd)	Total Capital Cost (\$M)	Unit Cost (\$/1,000 gallons)	Estimated Completion Date	Project Status	Water Supply or Water Resource Development
2015_138c		Seminole	SJRWMD	St. Johns River Near Yankee Lake – Option 3	Seminole County, SJRWMD	Expand the existing 5 mgd brackish surface water source at Yankee Lake Regional Surface WTP up to 45 mgd. Project includes additional treatment, ground storage and concentrate management. Project would provide up to 27.6 mgd potable water to various end users (Seminole County, Sanlando, Apopka and OUC) and includes an option to inject 12.4 mgd into the UFA near Wekiwa and Rock Springs.	N/A	N/A	\$544.98	\$4.44	TBD	Concept	WSDP
2015_139		Seminole	SJRWMD	Winter Springs - Lake Jesup Reclaimed Water Augmentation Project	Winter Springs	Construct surface water storage tank and transmission lines for reclaimed water supplementation – 2 phases: Phase A – three pumps and Phase B – two pumps.	2.20	2.20	\$9.24	\$2.25	2025	Concept	WSDP
2015_144		Okeechobee/Indian River	SFWMD/SJRWMD	Grove Land Reservoir and Stormwater Treatment Areas	Grove Land Utilities	Construct a reservoir and stormwater treatment area that will retain water from the C-23, C-24, and C-25 Canals, which is otherwise lost to tide. Discharge treated water to the headwaters of the St. Johns River as an AWS for water utilities and other water users.	NA	100.00	\$691.00	\$0.91	1/31/2026	Planning	WRDP AND WSDP
2015_146	SW00136E	Polk	SFWWMD	Peace Creek Integrated Water Supply Project (Sapphire Necklace)	PRWC, Winter Haven	Combination of Peace Creek Reservoir and treatment for 1.1 mgd, Peace Creek Sapphire Necklace surface storage (18 wetland storage sites) for 14 mgd, and an aquifer recharge and recovery water exchange system.	10.00	10.00	\$65.20	\$3.80	2023	Planning	WRDP AND WSDP

Table E-5. Updated summary of CFWI RWSP water supply and water resource development project options: Surface Water Projects.

RWSP Project #	DEP Project ID	County	District	Project Name	Implementing Agency or Entity	Project Description	Project Capacity (mgd)	Generated or Water Resource Benefit (mgd)	Total Capital Cost (\$M)	Unit Cost (\$/1,000 gallons)	Estimated Completion Date	Project Status	Water Supply or Water Resource Development
2015_150	SW00301A	Polk	SWFWMD	Polk County Regional Alafia River Basin	PRWC	Construct a surface water intake structure on the Alafia River, SW treatment and transmission to Polk County.	10.00	10.00	\$263.40	\$5.30	TBD	Concept	WSDP
2020_53	SI00082A	Orange	SJRWMD	Taylor Creek Reservoir Improvement Project	SJRWMD	Restore levee to its original design by incorporating 2 overflow spillways and a levee toe drainage system (currently 41 to 43 feet NGVD) to 46 feet NGVD. Raising the water level would increase the WS yield from the reservoir without any supplemental diversions from the St. Johns River.	17.00	17.00	\$1.10	ND	TBD	Planning	WRDP
2020_54	-	Polk	SWFWMD	Peace River Land Use Transition Treatment Facility and Reservoir Project	PRWC	Construct an intake structure, pump station, surface water treatment and transmission through combing a reservoir and treatment of harvested Peace River Flows.	11.00	11.00	\$150.20	\$4.22	TBD	Planning	WSDP
2020_55	-	Polk	SWFWMD	Peace Creek Water Supply Project / Winter Haven Peace Creek Surface Water Storage	PRWC	Phase I: feasibility study, formation of a watershed partnership, selection and evaluation of aquifer recharge sites, preliminary design report, integrated WSP, site permitting, and preliminary rate analysis.	10.00	10.00	\$120.89	\$2.02	Phase I: 2021	10.0	10.0
2020_60	-	Osceola	SJRWMD	Pennywash/Wolf Creek Reservoir	East Central Florida Services, Inc.	Conceptual new 20 mgd surface water reservoir near the junction of Pennywash and Wolf Creeks, as part of North Ranch Sector Plan. (add footnote – 163.3245(4)(b) must be included in the RWSP)	N/A	N/A	TBD	TBD	post-2040	Conceptual	WSDP

Table E-5. Updated summary of CFWI RWSP water supply and water resource development project options: Surface Water Projects.

RWSP Project #	DEP Project ID	County	District	Project Name	Implementing Agency or Entity	Project Description	Project Capacity (mgd)	Generated or Water Resource Benefit (mgd)	Total Capital Cost (\$M)	Unit Cost (\$/1,000 gallons)	Estimated Completion Date	Project Status	Water Supply or Water Resource Development
				TOTALS			246.20	324.30	\$4,405.82				

Table E-6. Updated summary of CFWI RWSP water supply and water resource development project options: Stormwater Projects.

RWSP Project #	DEP Project ID	County	District	Project Name	Implementing Agency or Entity	Project Description	Project Capacity (mgd)	Generated or Water Resource Benefit (mgd)	Total Capital Cost (\$M)	Unit Cost (\$/1,000 gallons)	Estimated Completion Date	Project Status	Water Supply or Water Resource Development
2015_59	--	Osceola	SFWMD	West Ditch Stormwater for Reuse Augmentation	Toho Water Authority	Collect water from the West Ditch City canal and route it through a series of interconnected ponds to provide stormwater as an AWS for reclaimed water supplementation to the South Bermuda WRF.	1.50	0.90	\$30.63	\$3.51	2020	Planning	WSDP
2015_128	SF00267A	Osceola	SFWMD	Judge Farms Reservoir & Impoundment Project	Toho Water Authority	Impound stormwater and surface water from Mill Slough and the East City Drainage Ditch for subsequent treatment and distribution for irrigation and/or potable use.	8.22	8.22	\$30.75	\$0.99	10/31/2018 - Phase 1	Phase I complete	WSDP
					TOTALS		6.50	5.90	\$61.39				

Table E-7. Updated summary of CFWI RWSP water supply and water resource development project options: Management Strategies.

RWSP Project #	DEP Project ID	County	District	Project Name	Implementing Agency or Entity	Project Description	Project Capacity (mgd)	Generated or Water Resource Benefit (mgd)	Total Capital Cost (\$M)	Unit Cost (\$/1,000 gallons)	Estimated Completion Date	Project Status	Water Supply or Water Resource Development
2015_140	-	Polk	SWFWMD	Wellfield Sharing	PRWC	The sharing of UFA wells throughout the county to optimize permit vs. actual use and minimize impacts. Cost includes additional UFA wells and transfer pumping system.	6.00	6.00	\$10.56	\$0.36	TBD	Concept	WRDP AND WSDP
2015_141	SW00354A	Polk	SWFWMD	Regional Water Grid System	PRWC	Construct 90 miles of transmission main, valves and booster pump station, initial planning, permitting and design fees, and infrastructure construction costs including land costs, legal fees, and contingencies.	6.00	0.00	\$245.92	\$7.84	2020	Concept	WSDP
2015_142	-	Polk	SWFWMD	Joint Toho Water Authority/Polk County Supply	TWA, PCU	Regional transfer of existing water capacity.	5.00	0.00	\$65.20	\$2.39	TBD	Concept	WSDP
2015_148	-	Orange, Osceola, Polk, Seminole, Lake	SJRWMD, SFWMD, SWFWMD	FDOT Reuse projects	FDOT, SJRWMD, SFWMD, SWFWMD	Potential future stormwater projects for water resource development or water supply, coordinated by the Districts and FDOT.	TBD	TBD	TBD	TBD	TBD	Concept	WRDP AND WSDP

Table E-7. Updated summary of CFWI RWSP water supply and water resource development project options: Management Strategies.

RWSP Project #	DEP Project ID	County	District	Project Name	Implementing Agency or Entity	Project Description	Project Capacity (mgd)	Generated or Water Resource Benefit (mgd)	Total Capital Cost (\$M)	Unit Cost (\$/1,000 gallons)	Estimated Completion Date	Project Status	Water Supply or Water Resource Development
2020_56	--	Orange	SJRWMD	Golden Gem Road RW Pond	City of Apopka, SJRWMD	Construction of a pond for reclaimed water storage and aquifer enhancement with a storage capacity of 200 to 400 mg.	TBD	TBD	TBD	TBD	2021	Design	WRDP AND WSDP
2020_57	:	Orange	SJRWMD	Lake Apopka North Shore Recharge Well	SJRWMD	Aquifer recharge via a recharge well located near the City's surface water withdrawal facility adjacent to LANS.	5.00	5.00	TBD	TBD	2022	Concept	WRDP
2020_58	-	Lake	SJRWMD	Wekiva Falls RV Resort	Wekiva Fall RV Resort, LLC	Potential aquifer enhancement to be achieved through required actions on a CUP - install flow restriction device, permanent operation plan, and external source of contamination evaluation.	TBD	TBD	TBD	TBD	2021	Concept	WRDP AND WSDP
					TOTALS		22.00	11.00	\$321.68				

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**St. Johns River
Water Management District**
P.O. Box 1429
Palatka, FL 32178-1429
(386) 329-4500 • (800) 451-7106
floridaswater.com



**South Florida
Water Management District**
3301 Gun Club Road
West Palm Beach, Florida 33406
(561) 686-8800 • (800) 432-2045
sfwmd.gov



**Southwest Florida
Water Management District**
2379 Broad Street
Brooksville, FL 34604-6899
(352) 796-7211 • (800) 423-1476
WaterMatters.org