

Appendix E

Adopted Minimum Flows and Levels (MFLs)

DRAFT

Introduction

Minimum Flows and Levels (MFLs) are the minimum water flows and/or minimum levels adopted by water management district Governing Boards or the Florida Department of Environmental Protection (DEP) to prevent significant harm to the water resources or the ecological structure and function of an area resulting from groundwater or surface water withdrawals. MFLs characterize water resource values (WRVs) for individual waterbodies and define the critical flows and levels necessary to protect these WRVs from significant harm. MFLs inform decisions regarding water use permitting, water shortages, assessments of water supply sources, and development of water resource and water supply projects.

Methods

Establishing MFLs is required pursuant to subsection 373.042(3), Florida Statutes (F.S.). Adoption is typically a four- to six-month process that involves public workshops, review by DEP and publication in the Florida Administrative Register. MFLs are to be reviewed periodically and revised as necessary under subsection 373.0421(5), F.S.

Results

As of March 2023, the St. Johns River Water Management District (SJRWMD), Suwannee River Water Management District (SRWMD), and DEP have established 73 MFLs in the North Florida Regional Water Supply Plan (NFRWSP) area; 48 lakes in the SJRWMD and three lakes, three rivers (four river gages), and 20 springs in the SRWMD (Table E1 and Figure E1). The full list of adopted MFLs within the SJRWMD and SRWMD can be found in chapters 40C-8 and 40B-8, respectively, and section 62-42.300, Florida Administrative Code (F.A.C.).

Although there are 48 lakes with MFLs in the SJRWMD portion of the NFRWSP area, only 20 were assessed in the NFRWSP. The SJRWMD lake MFL assessment methodology only applies to lakes that have a significant connection to the Floridan aquifer. Lakes without such a connection (four total within the NFRWSP area) are noted in Table E1 as having “no significant Floridan aquifer connection” (NSFAC). The remaining non-assessed lakes (24 total) lacked sufficient data for assessment at the time of analysis. For the majority of these systems, surface water models have not yet been developed to assess whether MFLs are being met. The SJRWMD is evaluating the development of surface water models for systems with MFLs that currently lack them and will prioritize model development or updates for systems in areas of high projected UFA drawdown. In south Putnam County, where many of these non-assessed lakes are located, surface water models have been developed and MFLs assessed for nearby lakes help ensure regional protection of water resources from consumptive use impacts.

This approach is considered conservative because MFLs systems being assessed are in areas with higher projected UFA change, and the majority of those systems are meeting their MFLs. Many of the MFLs not assessed are in areas of similar projected UFA drawdown with those that are assessed and meeting their MFLs. However, some systems that are not assessed are in areas of high projected change and do not have

adjacent assessed MFLs systems. These water bodies will be prioritized for assessment before completion of the next NFRWSP.

Additionally, Columbia Spring and GIL1012973 (Siphon Creek Rise) were not assessed because they are resurgences. Falmouth Spring is a karst window and is not represented in the NFSEG model. Falmouth Spring has documented connections to Lime Spring, Lime Sink Rise, and Suwanacoochee Spring and was assessed based on the average of flow changes at those springs.

Table E1: SJRWMD and SRWMD Adopted MFLs within the NFRWSP Area

Waterbody Type	Waterbody Name	County/Basin	District	Assessed in NFRWSP
Lake	Argenta	Putnam	SJR	No – Insufficient data
Lake	Banana	Putnam	SJR	Yes
Lake	Bell	Putnam	SJR	Yes
Lake	Bird Pond	Putnam	SJR	No – Insufficient data
Lake	Blue Pond	Clay	SJR	No – NSFAC
Lake	Brooklyn	Clay	SJR	Yes
Lake	Broward	Putnam	SJR	Yes
Lake	Clear	Putnam	SJR	No – Insufficient data
Lake	Como	Putnam	SJR	Yes
Lake	Cowpen	Putnam	SJR	Yes
Lake	Crystal/Baker/Ida	Putnam	SJR	No – Insufficient data
Lake	Deep	Putnam	SJR	No – Insufficient data
Lake	Disston	Flagler	SJR	No – NSFAC
Lake	Dream Pond	Putnam	SJR	Yes
Lake	Echo	Putnam	SJR	No – Insufficient data
Lake	English/Nettles	Putnam	SJR	No – NSFAC
Lake	Estella	Putnam	SJR	No – Insufficient data
Lake	Geneva	Clay	SJR	Yes
Lake	Georges	Putnam	SJR	Yes
Lake	Gore	Flagler	SJR	Yes
Lake	Grandin	Putnam	SJR	Yes
Lake	Howell	Putnam	SJR	No – Insufficient data
Lake	Little Como	Putnam	SJR	Yes
Lake	Little Mall	Putnam	SJR	No – Insufficient data
Lake	Lizzie	Putnam	SJR	No – Insufficient data
Lake	Lochloosa	Alachua	SJR	Yes
Lake	Lowry/Sand Hill	Clay	SJR	No – Insufficient data
Lake	Magnolia	Clay	SJR	No – Insufficient data
Lake	Margaret	Putnam	SJR	No – Insufficient data
Lake	Marvin	Putnam	SJR	No – Insufficient data
Lake	McGrady	Putnam	SJR	No – Insufficient data
Lake	McKasel	Putnam	SJR	No – Insufficient data
Lake	Melrose	Putnam	SJR	No – NSFAC
Lake	North Como Park	Putnam	SJR	No – Insufficient data
Lake	Omega	Putnam	SJR	No – Insufficient data

Waterbody Type	Waterbody Name	County/Basin	District	Assessed in NFRWSP
Lake	Orio	Putnam	SJR	Yes
Lake	Pam	Putnam	SJR	No – Insufficient data
Lake	Prior	Putnam	SJR	No – Insufficient data
Lake	Sand	Putnam	SJR	No – Insufficient data
Lake	Silver	Putnam	SJR	Yes
Lake	South Como Park	Putnam	SJR	No – Insufficient data
Lake	Star	Putnam	SJR	No – Insufficient data
Lake	Stella	Putnam	SJR	Yes
Lake	Swan	Putnam	SJR	Yes
Lake	Tarhoe	Putnam	SJR	Yes
Lake	Trone	Putnam	SJR	Yes
Lake	Tusawilla	Alachua	SJR	Yes
Lake	Wauberg	Alachua	SJR	No – Insufficient data
Lake	Butler	Union	SR	Yes
Lake	Hampton	Bradford	SR	Yes
Lake	Santa Fe	Alachua	SR	Yes
River	Ichetucknee River at U.S. Highway 27	Ichetucknee River	SR	Yes ²
River	Santa Fe River at Worthington Springs	Upper Santa Fe River	SR	Yes
River	Santa Fe River near Ft. White	Lower Santa Fe River	SR	Yes ²
River	Santa Fe River Near Graham	Upper Santa Fe River	SR	Yes
Spring	ALA112971 (Treehouse) (OFS) ¹	Lower Santa Fe River	SR	Yes
Spring	Blue Hole Spring (OFS) ¹	Ichetucknee River	SR	Yes ²
Spring	COL101974 - Unnamed ¹	Lower Santa Fe River	SR	Yes ²
Spring	Columbia Spring (OFS) ¹	Lower Santa Fe River	SR	Not assessed
Spring	Devil's Ear Spring (Ginnie Group) (OFS) ¹	Lower Santa Fe River	SR	Yes ²
Spring	Devil's Eye Spring (OFS) ¹	Ichetucknee River	SR	Yes ²
Spring	Falmouth Spring (OFS) ¹	Middle Suwannee River	SR	Yes - Emergency Rule
Spring	GIL1012973 (Siphon Creek Rise) ¹	Lower Santa Fe River	SR	Not assessed
Spring	Grassy Hole Spring (OFS) ¹	Ichetucknee River	SR	Yes ²
Spring	Hornsby Spring (OFS) ¹	Lower Santa Fe River	SR	Yes ²
Spring	Ichetucknee Headspring (OFS) ¹	Ichetucknee River	SR	Yes ²
Spring	July Spring ¹	Lower Santa Fe River	SR	Yes ²
Spring	Lafayette Blue Spring (OFS) ¹	Middle Suwannee River	SR	Yes - Emergency Rule
Spring	Mill Pond Spring (OFS) ¹	Ichetucknee River	SR	Yes ²
Spring	Mission Spring (OFS) ¹	Ichetucknee River	SR	Yes ²

Waterbody Type	Waterbody Name	County/Basin	District	Assessed in NFRWSP
Spring	Peacock Springs (OFS) ¹	Middle Suwannee River	SR	Yes - Emergency Rule
Spring	Poe Spring (OFS) ¹	Lower Santa Fe River	SR	Yes ²
Spring	Rum Island Spring ¹	Lower Santa Fe River	SR	Yes ²
Spring	Santa Fe River Rise ¹	Lower Santa Fe River	SR	Yes ²
Spring	Troy Spring (OFS) ¹	Middle Suwannee River	SR	Yes - Emergency Rule

NSFAC = No significant Floridan aquifer connection

OFS = Outstanding Florida Spring

¹Springs on the SRWMD Priority List

²Assessed based on adopted Recovery Strategy

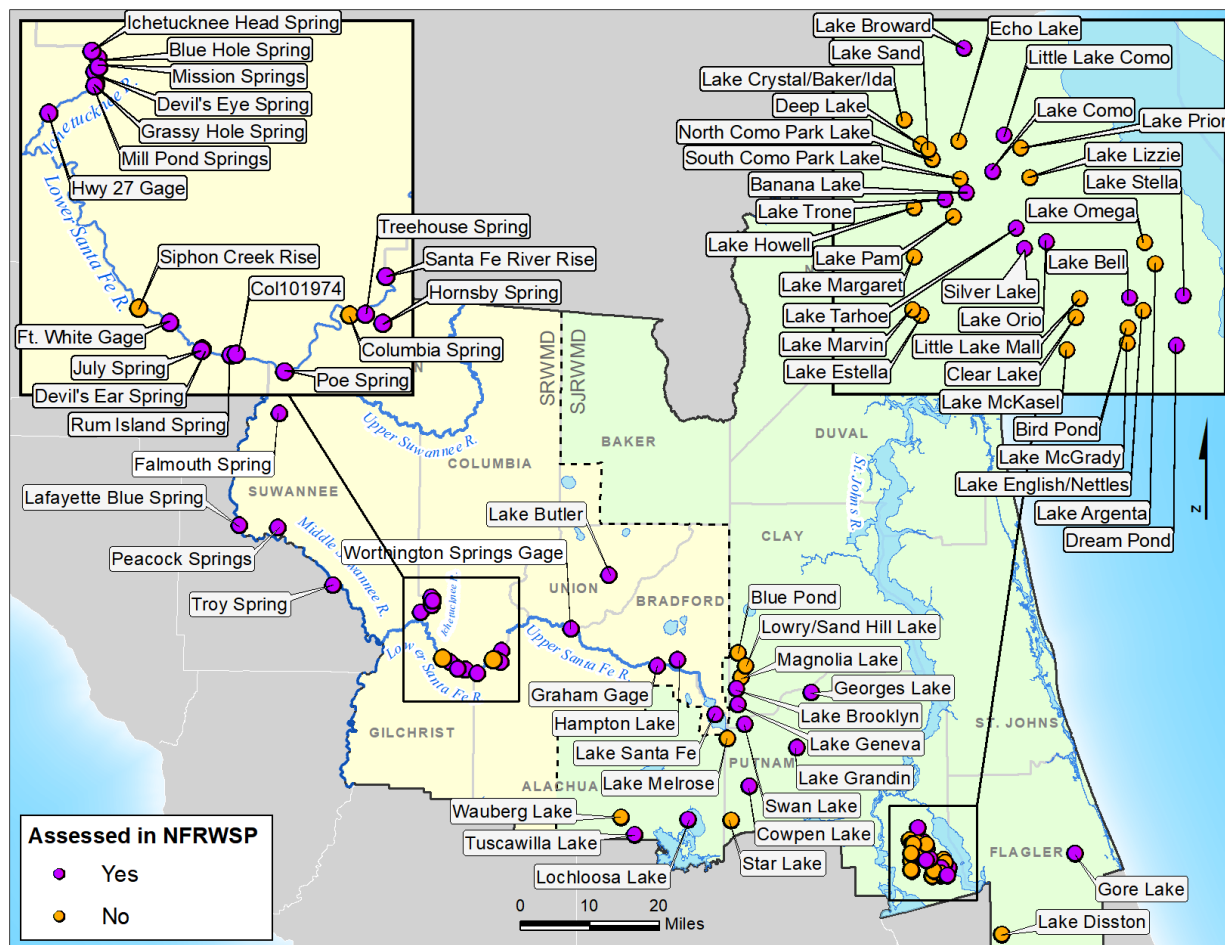


Figure E1: Locations of SJRWMD and SRWMD Adopted MFLs within the NFRWSP Area