ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

CHAPTER 40C-8, F.A.C.

MINIMUM FLOWS AND LEVELS

Revised

February 24, 2025

CHAPTER 40C-8
MINIMUM FLOWS AND LEVELS

40C-8.011 Policy and Purpose.

(1) This chapter establishes minimum flows and levels for surface watercourses and minimum levels for groundwater at specific locations within the St. Johns River Water Management District.

(2) Where appropriate, minimum flows and levels may reflect seasonal and long term variations and may include a schedule of variations and other measures appropriate for the protection of nonconsumptive uses of a water resource.

(3) In establishing minimum flows and levels the Governing Board shall use the best information and methods available to establish limits which prevent significant harm to the water resources or ecology. The Governing Board will also consider, and at its discretion provide for the protection of nonconsumptive uses, including navigation, recreation, fish and wildlife habitat, and other natural resources.

(4) Where a minimum flow has been established for a specific watercourse or a minimum level has been established for a specific surface water body, the flow or level is expressed as a fluctuation regime which will include a series of minimum flows or levels reflecting a temporal hydrologic regime that will prevent significant harm to water resources or ecology.

(5) Minimum flows and levels prescribed in this chapter are used as a basis for imposing limitations on withdrawals of groundwater and surface water for reviewing proposed surface water management and storage systems and stormwater management systems, and for imposing water shortage restrictions. The limitations and review criteria are prescribed in other rule chapters of the District.

Rulemaking Authority 373.044, 373.113 FS. Law Implemented 373.042, 373.415 FS. History–New 9-16-92, Amended 8-17-94.

40C-8.021 Definitions.

Unless the context indicates otherwise, the following terms shall have the following meanings.

(1) “Black Water Creek” means that watercourse designated Black Water Creek within the Wekiva River Hydrologic Basin as defined by Rule 40C-41.023, F.A.C.

(2) “Determined minimum surface water flow” means a flow, expressed in cubic feet per second combined with a temporal element. The temporal element may be specifically expressed as a duration and return interval or may be generally expressed as a hydroperiod category.

(3) “Determined minimum surface water level” means an elevation in feet NGVD combined with a temporal element. The temporal element, for purposes of this chapter may be specifically expressed as a duration and return interval or may be generally expressed as a hydroperiod category.

(4) “Intermittently exposed” means a hydroperiod category where surface water is present throughout the year except in years of extreme drought. In most lakes this category does not typically support emergent vegetation and would be characterized as open water or floating-leaved deep marsh. Water levels causing inundation are expected to occur more than ninety percent of the time over a long term period of record.

(5) “Intermittently flooded” means a hydroperiod category where the substrate is usually exposed, but surface water is present with variable frequency and duration. Water levels causing inundation are expected to occur on average approximately once every ten years or more. Years may intervene between periods of inundation. On recharge lakes (sandhill type lakes), the dominant vegetation growing at this elevation can change as soil moisture conditions change, from a dominance of upland species to wetland species or the reverse. Duration of inundation is on the order of several months. Water levels are expected to inundate less than two per cent of the time over a long term period of record.

(6) “Long term” or “long term period of record” means at least a 30 year continuous period.

(7) “Minimum frequent high” means a chronically high surface water level or flow with an associated frequency and duration that allows for inundation of the floodplain at a depth and duration sufficient to maintain wetland functions.

(8) “Minimum infrequent high” means an acutely high surface water level or flow with an associated frequency and duration

that is expected to be reached or exceeded during or immediately after periods of high rainfall so as to allow for inundation of a floodplain at a depth and duration sufficient to maintain biota and the exchange of nutrients and detrital material.

(9) “Minimum average” means the surface water level or flow necessary over a long period to maintain the integrity of hydric soils and wetland plant communities.

(10) “Minimum frequent low” means a chronically low surface water level or flow that generally occurs only during periods of reduced rainfall. This level is intended to prevent deleterious effects to the composition and structure of floodplain soils, the species composition and structure of floodplain and instream biotic communities, and the linkage of aquatic and floodplain food webs.

(11) “Minimum infrequent low” means an acutely low surface water level or flow with an associated frequency and duration which may occur during periods of extreme drought below which there will be a significant negative impact on the biota of the surface water which includes associated wetlands.

(12) “NAVD” means North American Vertical Datum of 1988.

(13) “NGVD” means National Geodetic Vertical Datum of 1929.

(14) “P25” means the percentile ranking represented by the elevation of the water surface or the flow of the spring or surface water that is equaled or exceeded 25 percent of the time as determined from a long-term water level or flow time series.

(15) “P50” means the percentile ranking represented by the elevation of the water surface or the flow of the spring or surface water that is equaled or exceeded 50 percent of the time as determined from a long-term water level or flow time series.

(16) “P75” means the percentile ranking represented by the elevation of the water surface or the flow of the spring or surface water that is equaled or exceeded 75 percent of the time as determined from a long-term water level or flow time series.

(17) “Permanently flooded” means a hydroperiod category where water covers the land surface throughout the year in all years. Vegetation, if present, is composed of aquatic macrophytes.

(18) “Phased Restriction” means the level or flow (based on the past 30 consecutive day average level or flow) at which a water use shortage phase (Phase I-IV as defined by Rule 40C-21.251, F.A.C.), is declared and its associated restrictions imposed.

(19) “Seasonally flooded” means a hydroperiod category where surface water is typically present for extended periods (30 days or more) during the growing season, resulting in a predominance of submerged or submerged and transitional wetland species. During extended periods of normal or above normal rainfall, lake levels causing inundation are expected to occur several weeks to several months every one to two years.

(20) “Semi-permanently flooded” means a hydroperiod category where surface water inundation persists in most years. When surface water is absent the water table is usually near the land surface. In many lakes with emergent marshes this water level is near the lower elevation that supports emergent marsh or floating vegetation and peat substrates, or other highly organic hydric substrates. This characterization may not be true for herbaceous wetlands around sandhill type lakes, which often have emergent vegetation that follows declining water levels to below the lower elevation of peat substrate. Water levels causing inundation are expected to occur approximately eighty percent of the time over a long term period of record. Exposure of these ground elevations is expected to re-occur, on average, about every five to ten years for extended periods (several or more months) during moderate droughts.

(21) “Temporarily Flooded” means a hydroperiod category where surface water is present or the substrate is flooded for brief periods (up to several weeks) approximately every five years. Plants of upland and wetland species are characteristic. The composition of the vegetation at this water level is dependant upon whether the flooding predominantly occurs in the growing season, whether seepage from higher elevations is pronounced, and the nature of the soil. Lake water levels are expected to equal or exceed this elevation five per cent of the time or less over a long term period of record.

(22) “Typically saturated” means a hydroperiod category where for extended periods of the year the water level should saturate or inundate. This results in saturated substrates for periods of one-half year or more during non-flooding periods of typical years. Water levels causing inundation are expected to occur fifty to sixty per cent of the time over a long term period of record. This water level is expected to have a recurrence interval, on the average, of one or two years over a long term period of record. Obligate wetland plant species are expected to be predominate near this water level.

(23) “Wekiva River” means that watercourse designated Wekiva River within the Wekiva River Hydrologic Basin as defined by Rule 40C-41.023, F.A.C.

Rulemaking Authority 373.044, 373.113 FS. Law Implemented 373.042, 373.103, 373.415 FS. History–New 9-16-92, Amended 8-17-94, 6-8-95, 3-19-02, 6-25-14, 1-30-19, 9-28-21.

40C-8.031 Minimum Surface Water Levels and Flows and Groundwater Levels.

(1) The following minimum groundwater levels and minimum mean annual spring flows are established:

Spring Name	County	Head (ft NGVD)	Discharge (cfs)
Messant Spring	Lake	32	12
Miami Springs	Seminole	27	4
Palm Springs	Seminole	27	7
Rock Springs	Orange	31	53
Sanlando Springs	Seminole	28	15
Seminole Springs	Lake	34	34
Starbuck Springs	Seminole	31	13
Wekiwa Springs	Orange	24	62

(2) The following minimum surface water levels and flows are established:

System Name	County	Minimum Level	Level (ft NGVD)	Flow (cfs)	Hydroperiod Category	Duration (days)	Return Interval (years)
Black Water Creek at The SR 44 Bridge	Lake	Infrequent High	27.0	340	–	7	5
		Frequent High	25.8	145	–	30	2
		Average	24.3	33	–	180	1.7
		Frequent Low	22.8	2.5	–	90	15
		Phase 1 Restriction	22.7	2.0	–	–	–
		Phase 2 Restriction	22.5	1.0	–	–	–
		Phase 3 Restriction	22.4	0.6	–	–	–
		Phase 4 Restriction	22.3	0.3	–	–	–
		Infrequent Low	21.9	0.0	–	7	100
St. Johns River 1.5 miles downstream of Lake Washington weir	Brevard	Frequent High	15.3	1450	Seasonally Flooded	–	–
		Average	12.7	240	Typically Saturated	–	–
		Frequent Low	11.3	28	Semipermanently Flooded	–	–
St. Johns River at SR 44 near DeLand	Volusia	Frequent High	1.9	4600	–	30	3
		Average	0.8	2050	–	180	1.5
		Frequent Low	0.3	1100	–	120	5
Taylor Creek 1.7 miles downstream of structure S-164		Frequent High	–	95	Seasonally Flooded	–	–
		Average	–	17	Typically Saturated	–	–
		Frequent Low	–	0.5	Semipermanently Flooded	–	–
St. Johns River at SR 50 near Christmas	Orange and Brevard	Frequent High	8.1	1950	–	30	2
		Average	5.9	580	–	180	1.5
		Frequent Low	4.2	140	–	120	5

System Name	County	Minimum Level	Level (ft NGVD)	Flow (cfs)	Hydroperiod Category	Duration (days)	Return Interval (years)
		Infrequent Low	2.7	43	–	60	50
Wekiva River at the SR 46 Bridge	Seminole and Lake	Infrequent High	9.0	880	–	7	5
		Frequent High	8.0	410	–	30	2
		Average	7.6	240	–	180	1.7
		Frequent Low	7.2	200	–	90	3
		Phase 1 Restriction	7.0	190	–	–	–
		Phase 2 Restriction	6.9	180	–	–	–
		Phase 3 Restriction	6.7	160	–	–	–
		Phase 4 Restriction	6.5	150	–	–	–
		Infrequent Low	6.1	120	–	7	100

(3) The following minimum surface water flows are established for Blue Spring in Volusia County:

Time Period	Minimum Long Term Mean Flow
December 3, 2006 through March 31, 2009	133 cfs
April 1, 2009 through March 31, 2014	137 cfs
April 1, 2014 through March 31, 2019	142 cfs
April 1, 2019 through March 31, 2024	148 cfs
After March 31, 2024	157 cfs

(4) The following minimum surface water levels are established:

System Name	County	Minimum Level	Level (ft NGVD)	Level (ft NAVD)	Hydroperiod Category	Duration (days)	Return Interval (years)
(a) Argenta	Putnam	Frequent High	50.1	49.0	Seasonally Flooded	–	–
		Average	47.7	46.7	Typically Saturated	–	–
		Frequent Low	46.3	45.3	Semipermanently Flooded	–	–
(b) Ashby	Volusia	Frequent High	12.3	11.3	–	60	2
		Frequent Low	11.1	10.2	–	120	5
(c) Banana	Putnam	Frequent High	37.7	36.8	–	30	3
		Average	36.7	35.8	–	180	1.7
		Frequent Low	33.7	32.8	–	120	5
(d) Bell	Putnam	Frequent High	42.5	44.5	Temporarily Flooded	–	–
		Average	40.5	36.4	Typically Saturated	–	–
		Frequent Low	38.7	37.9	Semipermanently Flooded	–	–

System Name	County	Minimum Level	Level (ft NGVD)	Level (ft NAVD)	Hydroperiod Category	Duration (days)	Return Interval (years)
(e) Big	Volusia	Frequent High	26.1	25.1	Seasonally Flooded	–	–
		Average	25.0	24.1	Typically Saturated	–	–
		Frequent Low	23.7	22.7	Semipermanently Flooded	–	–
(f) Bird Pond	Putnam	Frequent High	41.8	40.8	Seasonally Flooded	–	–
		Average	39.5	38.5	Typically Saturated	–	–
		Frequent Low	38.1	37.1	Semipermanently Flooded	–	–
(g) Blue Pond	Clay	Frequent High	174.1	173.1	Temporarily Flooded	–	–
		Average	173.3	172.3	Typically Saturated	–	–
		Frequent Low	171.7	170.7	Semipermanently Flooded	–	–
(h) Boggy Marsh	Lake	Frequent High	117.3	116.4	Seasonally Flooded	–	–
		Average	115.9	115.0	Typically Saturated	–	–
		Frequent Low	114.5	113.6	Semipermanently Flooded	–	–
(i) Bowers	Marion	Frequent High	57.1	56.1	Temporarily Flooded	–	–
		Average	54.0	53.1	Typically Saturated	–	–
		Frequent Low	52.7	51.7	Semipermanently Flooded	–	–
(j) Brantley	Seminole	Frequent High	46.3	45.3	Seasonally Flooded	–	–
		Average	45.6	44.6	Typically Saturated	–	–
		Frequent Low	44.1	43.1	Semipermanently Flooded	–	–
(k) Broward	Putnam	Frequent High	40.0	39.1	Temporarily Flooded	–	–
		Average	38.2	35.8	Typically Saturated	–	–
		Frequent Low	36.5	35.6	Semipermanently Flooded	–	–
(l) Burkett	Orange	Frequent High	53.5	52.5	Seasonally Flooded	–	–
		Average	52.6	51.6	Typically Saturated	–	–
		Frequent Low	51.2	50.2	Semipermanently Flooded	–	–
(m) Charles	Marion	Frequent High	40.2	39.3	Seasonally Flooded	–	–
		Average	39.3	38.4	Typically Saturated	–	–

System Name	County	Minimum Level	Level (ft NGVD)	Level (ft NAVD)	Hydroperiod Category	Duration (days)	Return Interval (years)
		Frequent Low	37.9	36.9	Semipermanently Flooded	–	–
(n) Cherry	Lake	Frequent High	96.0	94.9	Seasonally Flooded	–	–
		Average	94.9	93.8	Typically Saturated	–	–
		Frequent Low	93.4	92.4	Semipermanently Flooded	–	–
(o) Clear	Putnam	Frequent High	37.4	36.4	Temporarily Flooded	–	–
		Average	36.4	35.4	Typically Saturated	–	–
		Frequent Low	34.9	34.0	Semipermanently Flooded	–	–
(p) Colby	Volusia	Frequent High	27.6	26.6	–	30	3
		Frequent Low	22.9	21.8	–	120	3
(q) Como	Putnam	Frequent High	37.7	36.8	–	30	3
		Average	36.7	35.8	–	180	1.7
		Frequent Low	33.7	32.8	–	120	5
(r) Como, Little Lake	Putnam	Frequent High	37.7	36.8	–	30	3
		Average	34.6	33.7	–	180	1.7
		Frequent Low	32.6	31.7	–	120	5
(s) Coon Pond	Volusia	Frequent High	35.7	34.8	Seasonally Flooded	–	–
		Average	34.6	33.6	Typically Saturated	–	–
		Frequent Low	33.1	32.2	Semipermanently Flooded	–	–
(t) Cowpen	Putnam	Infrequent High	92.0	90.8		30	25
		Average	85.2	84.0		180	1.7
		Frequent Low	83.5	82.3		120	2.7
(u) Cow Pond	Volusia	Frequent High	40.5	39.5	Seasonally Flooded	–	–
		Average	39.8	38.8	Typically Saturated	–	–
		Frequent Low	37.6	36.6	Semipermanently Flooded	–	–
(v) Crystal/Baker	Putnam	Frequent High	35.5	34.6	Seasonally Flooded	–	–
		Average	33.9	33.0	Typically Saturated	–	–

System Name	County	Minimum Level	Level (ft NGVD)	Level (ft NAVD)	Hydroperiod Category	Duration (days)	Return Interval (years)
		Frequent Low	33.0	32.1	Semipermanently Flooded	–	–
(w) Daugharty	Volusia	Frequent High	44.8	43.8	Temporarily Flooded	–	–
		Average	42.6	41.6	Typically Saturated	–	–
		Frequent Low	41.2	40.1	Semipermanently Flooded	–	–
(x) Davis	Volusia	Frequent High	36.2	35.2	Seasonally Flooded	–	–
		Average	35.4	34.4	Typically Saturated	–	–
		Frequent Low	34.0	33.0	Semipermanently Flooded	–	–
(y) Deep	Putnam	Frequent High	35.0	34.1	Seasonally Flooded	–	–
		Average	33.1	32.2	Typically Saturated	–	–
		Frequent Low	32.2	31.3	Semipermanently Flooded	–	–
(z) Dias	Volusia	Frequent High	34.6	33.5	Seasonally Flooded	–	–
		Average	33.5	33.0	Typically Saturated	–	–
		Frequent Low	32.2	31.6	Semipermanently Flooded	–	–
(aa) Disston	Flagler	Frequent High	13.8	12.8	Seasonally Flooded	–	–
		Average	13.2	12.3	Typically Saturated	–	–
		Frequent Low	12.5	11.5	Semipermanently Flooded	–	–
(bb) Dorr	Lake	Frequent High	43.5	42.5	Seasonally Flooded	–	–
		Average	43.1	42.1	Typically Saturated	–	–
		Frequent Low	42.1	41.0	Semipermanently Flooded	–	–
(cc) Dream Pond	Putnam	Frequent High	49.0	48.0	Seasonally Flooded	–	–
		Average	47.5	46.5	Typically Saturated	–	–
		Frequent Low	46.0	45.1	Semipermanently Flooded	–	–
(dd) Drudy	Volusia	Frequent High	42.1	41.0	Seasonally Flooded	–	–
		Average	40.6	39.5	Typically Saturated	–	–
		Frequent Low	39.1	38.1	Semipermanently Flooded	–	–
(ee) Echo	Putnam	Frequent High	38.8	37.9	Seasonally Flooded	–	–

System Name	County	Minimum Level	Level (ft NGVD)	Level (ft NAVD)	Hydroperiod Category	Duration (days)	Return Interval (years)
		Average	36.7	35.7	Typically Saturated	–	–
		Frequent Low	35.2	34.3	Semipermanently Flooded	–	–
(ff) Emma	Lake	Frequent High	94.1	93.0	Seasonally Flooded	–	–
		Average	92.5	91.4	Typically Saturated	–	–
		Frequent Low	91.1	90.0	Semipermanently Flooded	–	–
(gg) Emporia	Volusia	Frequent High	38.9	37.8	Seasonally Flooded	–	–
		Average	35.8	34.7	Typically Saturated	–	–
		Frequent Low	34.3	31.6	Semipermanently Flooded	–	–
(hh) Estella	Putnam	Frequent High	38.6	37.7	Seasonally Flooded	–	–
		Average	37.2	36.3	Typically Saturated	–	–
		Frequent Low	36.5	35.5	Semipermanently Flooded	–	–
(ii) Fox	Brevard	Frequent High	16.7	15.4	Temporarily Flooded	–	–
		Average	15.3	14.0	Typically Saturated	–	–
		Frequent Low	13.8	12.6	Semipermanently Flooded	–	–
(jj) Georges Lake	Putnam	Frequent High	98.4	97.4	Seasonally Flooded	–	–
		Average	97.8	96.9	Typically Saturated	–	–
		Frequent Low	97.0	96.1	Semipermanently Flooded	–	–
(kk) Gertie	Volusia	Frequent High	27.5	26.5	Temporarily Flooded	–	–
		Average	25.6	24.6	Typically Saturated	–	–
		Frequent Low	23.3	22.4	Semipermanently Flooded	–	–
(ll) Gore	Flagler	Frequent High	21.1	20.0	–	30	3
		Average	20.6	19.6	–	180	1.5
		Frequent Low	19.2	18.2	–	120	5
(mm) Grandin	Putnam	Frequent High	81.5	80.7	–	30	2
		Frequent Low	78.6	77.8	–	120	5
(nn) Halfmoon	Marion	Frequent High	49.7	48.6	Seasonally Flooded	–	–

System Name	County	Minimum Level	Level (ft NGVD)	Level (ft NAVD)	Hydroperiod Category	Duration (days)	Return Interval (years)
		Average	47.9	46.7	Typically Saturated	–	–
		Frequent Low	46.5	45.3	Semipermanently Flooded	–	–
(oo) Helen	Volusia	Frequent High	46.1	45.0	Temporarily Flooded	–	–
		Average	44.2	43.2	Typically Saturated	–	–
		Frequent Low	43.6	42.6	Semipermanently Flooded	–	–
(pp) Hires	Volusia	Frequent High	41.0	40.0	Seasonally Flooded	–	–
		Average	39.5	38.5	Typically Saturated	–	–
		Frequent Low	38.0	37.0	Semipermanently Flooded	–	–
(qq) Hokey	Volusia	Frequent High	35.4	34.4	Seasonally Flooded	–	–
		Average	33.7	32.7	Typically Saturated	–	–
		Frequent Low	32.3	31.3	Semipermanently Flooded	–	–
(rr) Hopkins Prairie	Marion	Frequent High	25.8	24.5	Seasonally Flooded	–	–
		Average	23.4	22.1	Typically Saturated	–	–
		Frequent Low	22.0	20.7	Semipermanently Flooded	–	–
(ss) Howell	Putnam	Frequent High	34.5	33.5	Seasonally Flooded	–	–
		Average	33.6	32.7	Typically Saturated	–	–
		Frequent Low	31.8	30.9	Semipermanently Flooded	–	–
(tt) Howell	Seminole	Frequent High	53.7	52.7	Seasonally Flooded		
		Average	52.9	51.9	Typically Saturated		
		Frequent Low	51.5	50.5	Semipermanently Flooded		
(uu) Indian	Volusia	Frequent High	36.2	35.2		30	3
		Average	35.0	34.0		180	1.7
		Frequent Low	32.8	31.8		120	5
(vv) Irma	Orange	Frequent High	55.1	54.1	Seasonally Flooded	–	–
		Average	54.8	53.8	Typically Saturated	–	–
		Frequent Low	53.4	52.4	Semipermanently Flooded	–	–

System Name	County	Minimum Level	Level (ft NGVD)	Level (ft NAVD)	Hydroperiod Category	Duration (days)	Return Interval (years)
(ww) Kerr	Marion	Infrequent High	25.6	24.6		30	25
		Frequent High	23.3	22.3		14	2
		Average	21.7	20.7		180	1.7
		Frequent Low	20.4	19.4		120	5
(xx) Lizzie	Putnam	Frequent High	43.9	43.0	Seasonally Flooded	–	–
		Average	42.7	41.8	Typically Saturated	–	–
		Frequent Low	41.7	40.8	Semipermanently Flooded	–	–
(yy) Louisa	Lake	Frequent High	96.5	95.6	Seasonally Flooded	–	–
		Average	95.4	94.5	Typically Saturated	–	–
		Frequent Low	94.0	93.0	Semipermanently Flooded	–	–
(zz) Lower Lake Louise	Volusia	Frequent High	31.8	30.8	Seasonally Flooded	–	–
		Average	31.2	30.1	Typically Saturated	–	–
		Frequent Low	29.7	28.7	Semipermanently Flooded	–	–
(aaa) Lucy	Lake	Frequent High	94.1	93.0	Seasonally Flooded	–	–
		Average	92.5	91.4	Typically Saturated	–	–
		Frequent Low	91.1	90.0	Semipermanently Flooded	–	–
(bbb) Magnolia	Clay	Frequent High	124.7	123.6	Seasonally Flooded	–	–
		Average	124.2	123.1	Typically Saturated	–	–
		Frequent Low	121.4	120.3	Semipermanently Flooded	–	–
(ccc) Mall, Little Lake	Putnam	Frequent High	38.7	37.7	Seasonally Flooded	–	–
		Average	36.8	35.8	Typically Saturated	–	–
		Frequent Low	35.2	34.2	Semipermanently Flooded	–	–
(ddd) Margaret	Putnam	Frequent High	35.2	34.2	Seasonally Flooded	–	–
		Average	34.5	33.5	Typically Saturated	–	–
		Frequent Low	32.5	31.5	Semipermanently Flooded	–	–
(eee) Martha	Orange	Frequent High	53.5	52.5	Seasonally Flooded	–	–

System Name	County	Minimum Level	Level (ft NGVD)	Level (ft NAVD)	Hydroperiod Category	Duration (days)	Return Interval (years)
		Average	52.6	51.6	Typically Saturated	–	–
		Frequent Low	51.2	50.2	Semipermanently Flooded	–	–
(fff) Marvin	Putnam	Frequent High	38.6	37.6	Seasonally Flooded	–	–
		Average	37.3	36.4	Typically Saturated	–	–
		Frequent Low	36.3	35.3	Semipermanently Flooded	–	–
(ggg) McGrady	Putnam	Frequent High	41.5	40.6	Seasonally Flooded	–	–
		Average	39.9	38.9	Typically Saturated	–	–
		Frequent Low	37.8	36.8	Semipermanently Flooded	–	–
(hhh) McKasel	Putnam	Frequent High	36.7	35.7	Seasonally Flooded	–	–
		Average	35.5	34.6	Typically Saturated	–	–
		Frequent Low	34.1	33.1	Semipermanently Flooded	–	–
(iii) Melrose	Putnam	Frequent High	104.7	103.6		30	3
		Average	104.2	103.1		180	1.7
		Frequent Low	103.7	102.6		120	10
(jjj) Mills	Seminole	Frequent High	42.5	41.1	Seasonally Flooded	–	–
		Average	41.4	40.3	Typically Saturated	–	–
		Frequent Low	39.9	38.9	Semipermanently Flooded	–	–
(kkk) Minneola	Lake	Frequent High	96.0	95.1	Seasonally Flooded	–	–
		Average	95.3	94.4	Typically Saturated	–	–
		Frequent Low	93.9	93.0	Semipermanently Flooded	–	–
(lll) Monroe	Seminole and Volusia	Frequent High	2.8	1.9	–	30	2
		Average	1.2	0.3	–	180	1.5
		Frequent Low	0.5	-0.4	–	120	5
(mmm) Nettles/English	Putnam	Frequent High	44.3	43.3	Seasonally Flooded	–	–
		Average	42.7	41.9	Typically Saturated	–	–
		Frequent Low	41.7	40.7	Semipermanently Flooded	–	–

System Name	County	Minimum Level	Level (ft NGVD)	Level (ft NAVD)	Hydroperiod Category	Duration (days)	Return Interval (years)
(nnn) Nicotoon	Marion	Frequent High	54.7	53.7	Seasonally Flooded	–	–
		Average	53.3	52.3	Typically Saturated	–	–
		Frequent Low	51.9	50.9	Semipermanently Flooded	–	–
(ooo) Norris	Lake	Frequent High	29.7	28.7		30	1.7
		Frequent Low	27.7	26.7		120	7.6
						–	–
(ppp) North Como Park	Putnam	Frequent High	41.3	40.4	Seasonally Flooded	–	–
		Average	39.7	38.8	Typically Saturated	–	–
		Frequent Low	38.5	37.6	Semipermanently Flooded	–	–
(qqq) North Talmadge	Volusia	Frequent High	55.6	54.5	Seasonally Flooded	–	–
		Average	54.4	53.3	Typically Saturated	–	–
		Frequent Low	52.9	51.9	Semipermanently Flooded	–	–
(rrr) Omega	Putnam	Frequent High	57.4	56.3	Temporarily Flooded	–	–
		Average	56.1	55.0	Typically Saturated	–	–
		Frequent Low	54.0	52.9	Semipermanently Flooded	–	–
(sss) Orio	Putnam	Frequent High	37.1	35.5	Seasonally Flooded	–	–
		Average	35.6	34.6	Typically Saturated	–	–
		Frequent Low	34.7	33.7	Semipermanently Flooded	–	–
(ttt) Pam	Putnam	Frequent High	39.3	38.2	Seasonally Flooded	–	–
		Average	37.5	36.4	Typically Saturated	–	–
		Frequent Low	36.1	35.0	Semipermanently Flooded	–	–
(uuu) Pearl	Orange	Frequent High	53.5	52.5	Seasonally Flooded	–	–
		Average	52.6	51.6	Typically Saturated	–	–
		Frequent Low	51.2	50.2	Semipermanently Flooded	–	–
(vvv) Pierson	Volusia	Frequent High	34.4	33.3	Seasonally Flooded	–	–
		Average	33.8	32.8	Typically Saturated	–	–

System Name	County	Minimum Level	Level (ft NGVD)	Level (ft NAVD)	Hydroperiod Category	Duration (days)	Return Interval (years)
		Frequent Low	32.4	31.3	Semipermanently Flooded	–	–
(www) Pine Island	Lake	Frequent High	107.7	106.6	Seasonally Flooded	–	–
		Average	106.8	105.7	Typically Saturated	–	–
		Frequent Low	105.4	104.3	Semipermanently Flooded	–	–
(xxx) Prevatt	Orange	Frequent High	56.0	54.9	Seasonally Flooded	–	–
		Average	53.0	52.0	Typically Saturated	–	–
		Frequent Low	50.9	49.9	Semipermanently Flooded	–	–
(yyy) Prior	Putnam	Frequent High	42.3	41.3	Seasonally Flooded	–	–
		Average	40.0	39.0	Typically Saturated	–	–
		Frequent Low	39.0	38.0	Semipermanently Flooded	–	–
(zzz) Purdom	Volusia	Frequent High	36.3	35.3		30	2
		Average	35.4	34.3		180	1.7
		Frequent Low	34.4	33.3		120	5
(aaaa) Sand	Putnam	Frequent High	40.9	39.4	Seasonally Flooded	–	–
		Average	39.0	38.0	Typically Saturated	–	–
		Frequent Low	36.6	35.7	Semipermanently Flooded	–	–
(bbbb) Sand Hill	Clay	Frequent High	132.0	130.9	Seasonally Flooded	–	–
		Average	131.6	130.6	Typically Saturated	–	–
		Frequent Low	129.5	128.4	Semipermanently Flooded	–	–
(cccc) Savannah	Volusia	Frequent High	31.1	30.2	Seasonally Flooded	–	–
		Average	29.5	28.4	Typically Saturated	–	–
		Frequent Low	28.0	27.0	Semipermanently Flooded	–	–
(dddd) Scoggin	Volusia	Frequent High	35.0	34.0	Seasonally Flooded	–	–
		Average	34.1	33.1	Typically Saturated	–	–
		Frequent Low	32.7	31.7	Semipermanently Flooded	–	–
(eeee) Shaw	Volusia	Frequent High	36.7	35.7	–	30	3

System Name	County	Minimum Level	Level (ft NGVD)	Level (ft NAVD)	Hydroperiod Category	Duration (days)	Return Interval (years)
		Average	35.4	34.4	–	180	1.7
		Frequent Low	33.7	32.7	–	120	3
(ffff) Silver	Putnam	Frequent High	36.8	35.8	Seasonally Flooded	–	–
		Average	35.1	34.1	Typically Saturated	–	–
		Frequent Low	33.7	32.7	Semipermanently Flooded	–	–
(gggg) Smith	Marion	Frequent High	54.6	53.6	Temporarily Flooded	–	–
		Average	51.4	50.4	Typically Saturated	–	–
		Frequent Low	50.0	49.0	Semipermanently Flooded	–	–
(hhhh) South	Brevard	Frequent High	16.7	15.5	Temporarily Flooded	–	–
		Average	15.3	14.0	Typically Saturated	–	–
		Frequent Low	13.8	12.6	Semipermanently Flooded	–	–
(iiii) South Como Park	Putnam	Frequent High	38.1	37.2	Seasonally Flooded	–	–
		Average	36.7	35.8	Typically Saturated	–	–
		Frequent Low	35.3	34.4	Semipermanently Flooded	–	–
(jjjj) Star	Putnam	Frequent High	77.5	76.5	Seasonally Flooded	–	–
		Average	75.4	74.4	Typically Saturated	–	–
		Frequent Low	74.0	73.0	Semipermanently Flooded	–	–
(kkkk) Stella	Putnam	Frequent High	39.4	38.4	Seasonally Flooded	–	–
		Average	38.6	37.6	Typically Saturated	–	–
		Frequent Low	37.2	36.1	Semipermanently Flooded	–	–
(llll) Sunset	Lake	Frequent High	85.9	84.9	Temporarily Flooded	–	–
		Average	83.5	82.4	Typically Saturated	–	–
		Frequent Low	81.0	79.9	Semipermanently Flooded	–	–
(mmmm) Swan	Putnam	Frequent High	93.0	91.9	Temporarily Flooded	–	–
		Average	90.3	89.2	Typically Saturated	–	–
(nnnn) Sylvan	Seminole	Frequent High	40.4	39.5	Seasonally Flooded	–	–
		Average	38.9	38.0	Typically Saturated	–	–

System Name	County	Minimum Level	Level (ft NGVD)	Level (ft NAVD)	Hydroperiod Category	Duration (days)	Return Interval (years)
		Frequent Low	37.5	36.5	Semipermanently Flooded	–	–
(oooo) Tarhoe	Putnam	Frequent High	36.6	35.7		30	3
		Average	35.1	34.2		180	1.7
		Frequent Low	33.0	32.0		120	5
(pppp) Three Island Lakes	Volusia	Frequent High	23.7	22.7	–	30	5
		Frequent Low	19.4	18.4	–	120	10
(qqqq) Trone	Putnam	Frequent High	37.1	36.2	–	30	3
		Average	35.4	34.5	–	180	1.7
		Frequent Low	32.8	31.9	–	120	5
(rrrr) Trout	Volusia	Frequent High	23.3	22.3	Seasonally Flooded	–	–
		Average	20.9	20.0	Typically Saturated	–	–
		Frequent Low	17.7	16.8	Semipermanently Flooded	–	–
(ssss) Tuscawilla	Alachua	Frequent High	77.6	76.4	Seasonally Flooded	–	–
		Average	74.6	73.4	Typically Saturated	–	–
		Frequent Low	73.2	72.0	Semipermanently Flooded	–	–
(tttt) Upper Lake Louise	Volusia	Frequent High	35.3	34.4	Seasonally Flooded	–	–
		Average	34.6	33.6	Typically Saturated	–	–
		Frequent Low	33.2	32.2	Semipermanently Flooded	–	–
(uuuu) Washington	Brevard	Frequent High	15.6	14.2	Seasonally Flooded	–	–
		Average	14.2	12.8	Typically Saturated	–	–
		Frequent Low	12.8	11.4	Semipermanently Flooded	–	–
(vvvv) Wauberg	Alachua	Frequent High	67.4	66.4	Seasonally Flooded	–	–
		Average	67.1	66.1	Typically Saturated	–	–
		Frequent Low	65.6	64.7	Semipermanently Flooded	–	–
(wwww) Weir	Marion	Frequent High	57.2	56.2	Seasonally Flooded	–	–
		Average	56.4	55.4	Typically Saturated	–	–

System Name	County	Minimum Level	Level (ft NGVD)	Level (ft NAVD)	Hydroperiod Category	Duration (days)	Return Interval (years)
		Frequent Low	54.9	53.9	Semipermanently Flooded	–	–
(xxxx) Winnemisett	Volusia	Frequent High	59.5	58.5	Seasonally Flooded	–	–
		Average	57.8	56.8	Typically Saturated	–	–
		Frequent Low	56.0	55.0	Semipermanently Flooded	–	–
(yyyy) Winona	Volusia	Frequent High	36.1	35.1	Seasonally Flooded	–	–
		Average	33.5	32.5	Typically Saturated	–	–
		Frequent Low	32.0	31.0	Semipermanently Flooded	–	–

(5) The following minimum surface water levels are established as exceedance percentiles:

System Name	County	Minimum Level	Level (ft NAVD)
Apshawa South	Lake	P25	83.6
		P50	82.3
		P75	80.8
Brooklyn	Clay	P25	111.5
		P50	106.2
		P75	98.6
Butler	Volusia	P50	20.1
Geneva	Bradford	P25	101.7
	Clay	P50	98.3
		P75	89.3
Lochloosa	Alachua	P50	56.5

The minimum P25, P50, and P75 levels for Apshawa Lake South are based on the MFLs condition lake level time series (1/27/1959 – 12/31/2018), effective {February 2025} which is incorporated by reference and available at https://www.flrules.org/Gateway/reference.asp?No=Ref-17728 and upon request from the St. Johns River Water Management District, 4049 Reid Street, Palatka, FL 32177-2529.

MFL status of Apshawa Lake South will be assessed by comparing the minimum P25, P50, and P75 to the current P25, P50, and P75, respectively. The current P25, P50, and P75 for Apshawa Lake South are calculated by updating the current-pumping condition lake level time series (1/27/1959 – 12/31/2018) with post-2018 observed data at SJRWMD gage 2930258. The current-pumping condition lake level time series is incorporated by reference and available at https://www.flrules.org/Gateway/reference.asp?No=Ref-17728 and upon request from the St. Johns River Water Management District, 4049 Reid Street, Palatka, FL 32177-2529.

The minimum P25, P50, and P75 levels for Lake Brooklyn are based on the MFLs condition lake level time series (7/17/1957 – 12/31/2018), effective 9/28/2021, which is incorporated by reference and available at https://www.flrules.org/Gateway/reference.asp?No=Ref-13524 and upon request from the St. Johns River Water Management District, 4049 Reid Street, Palatka, FL 32177-2529.

MFL status of Lake Brooklyn will be assessed by comparing the minimum P25, P50, and P75 to the current P25, P50, and P75, respectively. The current P25, P50, and P75 for Lake Brooklyn are calculated by updating the current-pumping condition lake level time series (7/17/1957 – 12/31/2018) with post-2018 observed data at SJRWMD gage 3360373. The current-pumping condition lake

level time series is incorporated by reference and available at https://www.flrules.org/Gateway/reference.asp?No=Ref-13524 and upon request from the St. Johns River Water Management District, 4049 Reid Street, Palatka, FL 32177-2529.
The minimum P50 level for Lake Butler is a long-term median lake level based on the MFLs condition lake level time series (1949 – 2018), effective September 30, 2020, which is incorporated by reference and available at https://www.flrules.org/Gateway/reference.asp?No=Ref-12168 and upon request from the St. Johns River Water Management District, 4049 Reid Street, Palatka, FL 32177-2529.
MFL status of Lake Butler will be assessed by comparing the minimum P50 to the current P50. The current P50 for Lake Butler is calculated by updating the simulated historical lake level time series (1949 – 2018) with post-2018 observed data at SJRWMD gage 03390378. The simulated historical lake level time series is incorporated by reference and available at https://www.flrules.org/Gateway/reference.asp?No=Ref-12168 and upon request from the St. Johns River Water Management District, 4049 Reid Street, Palatka, FL 32177-2529.
The minimum P25, P50, and P75 levels for Lake Geneva are based on the MFLs condition lake level time series (7/1/1957 – 12/31/2018), effective 9/28/2021, which is incorporated by reference and available at https://www.flrules.org/Gateway/reference.asp?No=Ref-13525 and upon request from the St. Johns River Water Management District, 4049 Reid Street, Palatka, FL 32177-2529.
MFL status of Lake Geneva will be assessed by comparing the minimum P25, P50, and P75 to the current P25, P50, and P75, respectively. The current P25, P50, and P75 for Lake Geneva are calculated by updating the current-pumping condition lake level time series (7/1/1957 – 12/31/2018) with post-2018 observed data at SJRWMD gage 11590497. The current-pumping condition lake level time series is incorporated by reference and available at https://www.flrules.org/Gateway/reference.asp?No=Ref-13525 and upon request from the St. Johns River Water Management District, 4049 Reid Street, Palatka, FL 32177-2529.
The minimum P50 level for Lochloosa Lake is a long-term median lake level based on the MFLs condition lake level time series (1957 – 2015), effective 1-30-19, which is incorporated by reference and available at https://www.flrules.org/Gateway/reference.asp?No=Ref-10225 and upon request from the St. Johns River Water Management District, 4049 Reid Street, Palatka, FL 32177-2529.
MFL status of Lochloosa Lake will be assessed by comparing the minimum P50 to the current P50. The current P50 for Lochloosa Lake is calculated by updating the simulated historical lake level time series (1957 – 2015) with post-2015 observed data at SJRWMD gage 71481615. The simulated historical lake level time series is incorporated by reference and available at https://www.flrules.org/Gateway/reference.asp?No=Ref-10225 and upon request from the St. Johns River Water Management District, 4049 Reid Street, Palatka, FL 32177-2529.

(6)(a) The minimum flow for Alexander Springs in Lake County is 95.7 cubic feet per second (CFS).

(b) The minimum flow for Alexander Springs is a mean annual flow based on the adjusted flow times-series data (1983 – 2014) at USGS gage 00291896. This adjusted flow-time series data from 1983 to 2014, effective 6-29-17, is incorporated by reference and available at http://www.flrules.org/Gateway/reference.asp?No=Ref-08325, and upon request from the St. Johns River Water Management District, 4049 Reid Street, Palatka, FL 32177-2529.

(7) The following minimum levels are established for Blue Cypress Water Management Area (BCWMA):

(a) The minimum average level, calculated as the long term mean of BCWMA water levels, is 24.0 feet NGVD (22.5 feet NAVD). Water levels shall be at or above this level at least 75% of time over the long term.

(b) The minimum frequent low is 23.0 feet NGVD (21.5 feet NAVD). The daily BCWMA water level shall not fall to this level or below more often than once every 2.5 years over the long term.

(c) The minimum infrequent low is 22.5 feet NGVD (21.0 feet NAVD). The BCWMA water level shall not fall to this level or below for 60 continuous days more frequently than once every 10 years over the long term.

(8)(a) The minimum spring flow for De Leon Springs in Volusia County is 25.6 Cubic feet per second (CFS).

(b) The minimum spring flow for De Leon Springs is a mean annual flow based on the baseline flow-time series data from 1965 to 2015 under the 2010-pumping condition (Baseline Flow), which data is incorporated by reference and available at http://www.flrules.org/Gateway/reference.asp?No=Ref-07783, and upon request from the St. Johns River Water Management District, 4049 Reid Street, Palatka, FL 32177-2529. The minimum spring flow for De Leon Springs is equal to the Baseline Flow as defined above.

(9)(a) The minimum flow for Gemini Springs in Volusia County is 9.3 cubic feet per second (CFS).

(b) The minimum spring flow for Gemini Springs is a mean annual flow based on the adjusted flow times-series data (1995 –

2015) at USGS gage 00410494. This adjusted flow-time series data from 1995 to 2015, effective 6-29-17, is incorporated by reference and available at http://www.flrules.org/Gateway/reference.asp?No=Ref-08326, and upon request from the St. Johns River Water Management District, 4049 Reid Street, Palatka, FL 32177-2529.

(10)(a) The minimum flow for Silver Glen Springs in Marion/Lake Counties is 99.6 cubic feet per second (CFS).

(b) The minimum flow for Silver Glen Springs is a mean annual flow based on the adjusted flow times-series data (1984 – 2015) at USGS gage 02236160. This adjusted flow-time series data from 1984 to 2015, effective 6-29-17, is incorporated by reference and available at http://www.flrules.org/Gateway/reference.asp?No=Ref-08327, and upon request from the St. Johns River Water Management District, 4049 Reid Street, Palatka, FL 32177-2529.

(11) The following minimum surface water flows and levels are established for Silver Springs in Marion County, as measured at the USGS 02239501 gaging station:

Minimum Flows	Flow (cfs)	Level (NAVD)	Duration (days)	Return Interval (years)
Frequent high	828	40.0	30	5
Average	638	38.2	180	1.7
Frequent low	572	37.0	120	3

The minimum surface water flows were developed to ensure that the associated surface water levels will be met. The two factors to be weighed in the status assessment of this MFL are (1) whether the surface water levels have been met; and, (2) the extent to which the surface water flow has been reduced due to groundwater withdrawals.

(12) Ground or surface water withdrawals or surface water works must not cause the infrequent high or frequent high surface water flows and levels to occur less frequently or for at lesser duration than stated. Ground or surface water withdrawals or surface water works must not cause the minimum average, frequent low, or infrequent low surface water levels and flows to occur more frequently or for longer durations than stated.

(13) Determining Ongoing Status – The purpose of this subsection is to provide the approach to determine whether the flow(s) and/or level(s) of a specific MFL water body is/are below or projected to fall below the rule-specified MFL criteria (along with the associated evaluations necessary to make such a determination). This status assessment is independent from and not a determination of consumptive use permit compliance or environmental resource permit compliance. Permit compliance is a regulatory function that is not considered to be within the scope of this subsection.

(a) A screening level analysis, which incorporates change in rainfall trend and uncertainty in MFLs, will be performed approximately every five years to monitor the status of an adopted MFL, as well as when permit applications are considered that may impact an MFL. If the screening level analysis shows that the MFL is being met based on the rainfall-adjusted flows or levels, then no further actions are required beyond continued monitoring. If the analysis shows that the MFL is not being met, or is trending toward not being met based on the rainfall-adjusted flows and levels, the District will conduct a cause and effect analysis to independently evaluate the potential impacts of various stressors on the MFL water body being assessed. Factors other than consumptive uses of water (e.g., long-term drought) can cause the flow or level of a surface watercourse, aquifer, surface water, or spring to drop below an adopted minimum flow or level. Factors to be considered in the determination of causation include, but are not limited to:

1. Rainfall or other climatic variables,
2. Consumptive use,
3. Land use changes or development,
4. Surface water drainage,
5. Geology/hydromorphology (e.g., sinkhole formation),
6. Water levels/flows in other appropriate water resources (e.g., nearby wells, lakes, streams, wetlands); and,
7. Ecological assessment information.

(b) The types of tools used in the causation analysis include, but are not limited to:

1. Double-mass analyses,
2. Rainfall/flow statistical analysis or flow regression,
3. Stage/duration/frequency analysis,
4. Modeling (regional, groundwater, ecological or water budget models); and,

5. Ecological tools.

Based on the causation analysis, the District will assess existing MFL criteria and any associated recovery and prevention strategies to determine the effectiveness of the strategies in recovering from or preventing significant harm to the water body.

(c) This subsection shall not apply within the Central Florida Water Initiative Area, as defined in paragraph 373.0465(2)(a), F.S. (2016).

Rulemaking Authority 373.042, 373.044, 373.113 FS. Law Implemented 373.042, 373.0421, 373.103, 373.415 FS. History–New 9-16-92, Amended 8-17-94, 6-8-95, 1-17-96, 8-20-96, 10-20-96, 11-4-98, 6-27-00, 2-13-01, 3-19-02, 5-12-03, 11-10-03, 1-12-04, 2-1-06, 12-3-06, 5-10-07, 5-24-07, 1-11-10, 8-22-13, 4-3-14, 11-25-14, 12-31-14, 1-31-16 (4)(aaa), 1-31-16 (4)(ssss), 2-1-17 (4)(w), 2-1-17 (6), (8), 6-27-17 (7), 6-29-17 (5), (8), (9), 1-30-19, 9-30-20, 9-28-21, 2-24-25.