

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

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

MINIMUM FLOWS AND LEVELS

Revised
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**CHAPTER 40C-8
MINIMUM FLOWS AND LEVELS**

40C-8.011	Policy and Purpose
40C-8.021	Definitions
40C-8.031	Minimum Surface Water Levels and Flows and Groundwater 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) “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.

(15) “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.

(16) “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.

(17) “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.

(18) “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.

(19) “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.

(20) “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.

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	Frequent High	8.1	1950	–	30	2
		Average	5.9	580	–	180	1.5
	Brevard	Frequent Low	4.2	140	–	120	5
		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
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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) Apshawa North	Lake	Frequent High	85.0	83.9	Seasonally Flooded	–	–
		Average	83.3	82.2	Typically Saturated	–	–
		Frequent Low	81.3	80.2	Semipermanently Flooded	–	–
(b) Apshawa South	Lake	Frequent High	86.0	85.7	Seasonally Flooded	–	–
		Average	84.7	83.6	Typically Saturated	–	–
		Frequent Low	83.2	82.1	Semipermanently Flooded	–	–
(c) 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	–	–
(d) Ashby	Volusia	Frequent High	12.3	11.3	–	60	2
		Frequent Low	11.1	10.2	–	120	5
(e) 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
(f) 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	–	–
(g) 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	–	–
(h) 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	–	–

System Name	County	Minimum Level	Level (ft NGVD)	Level (ft NAVD)	Hydroperiod Category	Duration (days)	Return Interval (years)
(i) Blue Pond	Clay	Frequent High	174.1	173.1	Temporarily Flooded	–	–
		Average	173.3	172.3	Typically Saturated	–	–
		Frequent	171.7	170.7	Semipermanently Flooded	–	–
		Low			Flooded		
(j) Boggy Marsh	Lake	Frequent High	117.3	116.4	Seasonally Flooded	–	–
		Average	115.9	115.0	Typically Saturated	–	–
		Frequent	114.5	113.6	Semipermanently Flooded	–	–
		Low			Flooded		
(k) Bowers	Marion	Frequent High	57.1	56.1	Temporarily Flooded	–	–
		Average	54.0	53.1	Typically Saturated	–	–
		Frequent	52.7	51.7	Semipermanently Flooded	–	–
		Low			Flooded		
(l) Brantley	Seminole	Frequent High	46.3	45.3	Seasonally Flooded	–	–
		Average	45.6	44.6	Typically Saturated	–	–
		Frequent	44.1	43.1	Semipermanently Flooded	–	–
		Low			Flooded		
(m) Brooklyn	Clay	Frequent High	114.6	113.5	Temporarily Flooded	–	–
		Average	108.0	106.9	Typically Saturated	–	–
		Frequent	101.0	99.9	Semipermanently Flooded	–	–
		Low			Flooded		
(n) Broward	Putnam	Frequent High	40.0	39.1	Temporarily Flooded	–	–
		Average	38.2	35.8	Typically Saturated	–	–
		Frequent	36.5	35.6	Semipermanently Flooded	–	–
		Low			Flooded		
(o) Burkett	Orange	Frequent High	53.5	52.5	Seasonally Flooded	–	–
		Average	52.6	51.6	Typically Saturated	–	–
		Frequent	51.2	50.2	Semipermanently Flooded	–	–
		Low			Flooded		
(p) Charles	Marion	Frequent High	40.2	39.3	Seasonally Flooded	–	–
		Average	39.3	38.4	Typically Saturated	–	–
		Frequent	37.9	36.9	Semipermanently Flooded	–	–
		Low			Flooded		
(q) Cherry	Lake	Frequent High	96.0	94.9	Seasonally Flooded	–	–
		Average	94.9	93.8	Typically Saturated	–	–
		Frequent	93.4	92.4	Semipermanently Flooded	–	–
		Low			Flooded		

System Name	County	Minimum Level	Level (ft NGVD)	Level (ft NAVD)	Hydroperiod Category	Duration (days)	Return Interval (years)
(r) 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	–	–
(s) Colby	Volusia	Frequent High	27.6	26.6	–	30	3
		Frequent Low	22.9	21.8	–	120	3
		Frequent High	37.7	36.8	–	30	3
(t) Como	Putnam	Average	36.7	35.8	–	180	1.7
		Frequent Low	33.7	32.8	–	120	5
		Frequent High	37.7	36.8	–	30	3
(u) Como, Little Lake	Putnam	Average	34.6	33.7	–	180	1.7
		Frequent Low	32.6	31.7	–	120	5
		Frequent High	37.7	36.8	–	30	3
(v) 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	–	–
(w) Cowpen	Putnam	Frequent High	89.1	88.1	Temporarily Flooded	–	–
		Average	85.7	84.7	Typically Saturated	–	–
		Frequent Low	84.2	83.2	Semipermanently Flooded	–	–
(x) 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	–	–
(y) Crystal/Baker	Putnam	Frequent High	35.5	34.6	Seasonally Flooded	–	–
		Average	33.9	33.0	Typically Saturated	–	–
		Frequent Low	33.0	32.1	Semipermanently Flooded	–	–
(z) 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	–	–
(aa) Davis	Volusia	Frequent High	36.2	35.2	Seasonally Flooded	–	–

System Name	County	Minimum Level	Level (ft NGVD)	Level (ft NAVD)	Hydroperiod Category	Duration (days)	Return Interval (years)
(bb) Deep	Putnam	Average	35.4	34.4	Typically Saturated	-	-
		Frequent	34.0	33.0	Semipermanently Flooded	-	-
		Low					
		Frequent	35.0	34.1	Seasonally Flooded	-	-
		High					
		Average	33.1	32.2	Typically Saturated	-	-
(cc) Dias	Volusia	Frequent	32.2	31.3	Semipermanently Flooded	-	-
		Low					
		Frequent	34.6	33.5	Seasonally Flooded	-	-
		High					
		Average	33.5	33.0	Typically Saturated	-	-
		Frequent	32.2	31.6	Semipermanently Flooded	-	-
(dd) Disston	Flagler	Low					
		Frequent	13.8	12.8	Seasonally Flooded	-	-
		High					
		Average	13.2	12.3	Typically Saturated	-	-
		Frequent	12.5	11.5	Semipermanently Flooded	-	-
		Low					
(ee) Dorr	Lake	Frequent	43.5	42.5	Seasonally Flooded	-	-
		High					
		Average	43.1	42.1	Typically Saturated	-	-
		Frequent	42.1	41.0	Semipermanently Flooded	-	-
		Low					
		Frequent	49.0	48.0	Seasonally Flooded	-	-
(ff) Dream Pond	Putnam	High					
		Average	47.5	46.5	Typically Saturated	-	-
		Frequent	46.0	45.1	Semipermanently Flooded	-	-
		Low					
		Frequent	42.1	41.0	Seasonally Flooded	-	-
		High					
(gg) Drudy	Volusia	Average	40.6	39.5	Typically Saturated	-	-
		Frequent	39.1	38.1	Semipermanently Flooded	-	-
		Low					
		Frequent	38.8	37.9	Seasonally Flooded	-	-
		High					
		Average	36.7	35.7	Typically Saturated	-	-
(hh) Echo	Putnam	Frequent	35.2	34.3	Semipermanently Flooded	-	-
		Low					
		Frequent	94.1	93.0	Seasonally Flooded	-	-
		High					
		Average	92.5	91.4	Typically Saturated	-	-
		Frequent	91.1	90.0	Semipermanently Flooded	-	-
(ii) Emma	Lake	Low					
		Frequent	38.9	37.8	Seasonally Flooded	-	-
		High					
		Average	35.8	34.7	Typically Saturated	-	-
		Frequent					
		Average					
(jj) Emporia	Volusia	Frequent					
		High					
		Average					

System Name	County	Minimum Level	Level (ft NGVD)	Level (ft NAVD)	Hydroperiod Category	Duration (days)	Return Interval (years)
(kk) Estella	Putnam	Frequent Low	34.3	31.6	Semipermanently Flooded	-	-
		Frequent High	38.6	37.7	Seasonally Flooded	-	-
		Average	37.2	36.3	Typically Saturated	-	-
		Frequent Low	36.5	35.5	Semipermanently Flooded	-	-
(ll) 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	-	-
		Frequent High	103.0	101.9	Seasonally Flooded	-	-
(mm) Geneva	Clay	Average	101.0	99.9	Typically Saturated	-	-
		Frequent Low	98.5	97.4	Semipermanently Flooded	-	-
		Frequent High	98.4	97.4	Seasonally Flooded	-	-
		Average	97.8	96.9	Typically Saturated	-	-
(nn) Georges Lake	Putnam	Frequent Low	97.0	96.1	Semipermanently Flooded	-	-
		Frequent High	27.5	26.5	Temporarily Flooded	-	-
		Average	25.6	24.6	Typically Saturated	-	-
		Frequent Low	23.3	22.4	Semipermanently Flooded	-	-
(oo) Gertie	Volusia	Frequent High	21.1	20.0	-	30	3
		Average	20.6	19.6	-	180	1.5
		Frequent Low	19.2	18.2	-	120	5
		Frequent High	81.5	80.7	-	30	2
(pp) Gore	Flagler	Frequent High	78.6	77.8	-	120	5
		Frequent Low	49.7	48.6	Seasonally Flooded	-	-
		Average	47.9	46.7	Typically Saturated	-	-
		Frequent Low	46.5	45.3	Semipermanently Flooded	-	-
(qq) Grandin	Putnam	Frequent High	46.1	45.0	Temporarily Flooded	-	-
		Average	44.2	43.2	Typically Saturated	-	-
		Frequent Low	43.6	42.6	Semipermanently Flooded	-	-
		Frequent Low					
(rr) Halfmoon	Marion	Frequent High					
		Average					
		Frequent Low					
		Frequent High					
(ss) Helen	Volusia	Average					
		Frequent Low					
		Frequent High					
		Average					

System Name	County	Minimum Level	Level (ft NGVD)	Level (ft NAVD)	Hydroperiod Category	Duration (days)	Return Interval (years)
(tt) 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	–	–
(uu) 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	–	–
(vv) 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	–	–
(ww) 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	–	–
(xx) 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		
(yy) 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
(zz) 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	–	–
(aaa) 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
(bbb) Lizzie	Putnam	Frequent High	43.9	43.0	Seasonally Flooded	–	–
		Average	42.7	41.8	Typically Saturated	–	–

System Name	County	Minimum Level	Level (ft NGVD)	Level (ft NAVD)	Hydroperiod Category	Duration (days)	Return Interval (years)
(ccc) Louisa	Lake	Frequent Low	41.7	40.8	Semipermanently Flooded	-	-
		Frequent High	96.5	95.6	Seasonally Flooded	-	-
		Average	95.4	94.5	Typically Saturated	-	-
		Frequent Low	94.0	93.0	Semipermanently Flooded	-	-
(ddd) 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	-	-
		Frequent High	94.1	93.0	Seasonally Flooded	-	-
(eee) Lucy	Lake	Average	92.5	91.4	Typically Saturated	-	-
		Frequent Low	91.1	90.0	Semipermanently Flooded	-	-
		Frequent High	124.7	123.6	Seasonally Flooded	-	-
		Average	124.2	123.1	Typically Saturated	-	-
(fff) Magnolia	Clay	Frequent Low	121.4	120.3	Semipermanently Flooded	-	-
		Frequent High	38.7	37.7	Seasonally Flooded	-	-
		Average	36.8	35.8	Typically Saturated	-	-
		Frequent Low	35.2	34.2	Semipermanently Flooded	-	-
(ggg) Mall, Little Lake	Putnam	Frequent High	35.2	34.2	Seasonally Flooded	-	-
		Average	34.5	33.5	Typically Saturated	-	-
		Frequent Low	32.5	31.5	Semipermanently Flooded	-	-
		Frequent High	53.5	52.5	Seasonally Flooded	-	-
(hhh) Margaret	Putnam	Average	52.6	51.6	Typically Saturated	-	-
		Frequent Low	51.2	50.2	Semipermanently Flooded	-	-
		Frequent High	38.6	37.6	Seasonally Flooded	-	-
		Average	37.3	36.4	Typically Saturated	-	-
(iii) Martha	Orange	Frequent Low	36.3	35.3	Semipermanently Flooded	-	-
		Frequent High	41.5	40.6	Seasonally Flooded	-	-
		Average	39.9	38.9	Typically Saturated	-	-
		Frequent Low					
(jjj) Marvin	Putnam	Frequent High					
		Average					
		Frequent Low					
		Frequent High					
(kkk) McGrady	Putnam	Average					
		Frequent Low					
		Frequent High					

System Name	County	Minimum Level	Level (ft NGVD)	Level (ft NAVD)	Hydroperiod Category	Duration (days)	Return Interval (years)
(III) McKasel	Putnam	Frequent Low	37.8	36.8	Semipermanently Flooded	–	–
		Frequent High	36.7	35.7	Seasonally Flooded	–	–
		Average	35.5	34.6	Typically Saturated	–	–
		Frequent Low	34.1	33.1	Semipermanently Flooded	–	–
(mmm) Melrose	Putnam	Frequent High	104.7	103.6		30	3
		Average	104.2	103.1		180	1.7
		Frequent	103.7	102.6		120	10
		Low					
(nnn) Mills	Seminole	Frequent High	42.5	41.1	Seasonally Flooded	–	–
		Average	41.4	40.3	Typically Saturated	–	–
		Frequent	39.9	38.9	Semipermanently Flooded	–	–
		Low					
(ooo) Minneola	Lake	Frequent High	96.0	95.1	Seasonally Flooded	–	–
		Average	95.3	94.4	Typically Saturated	–	–
		Frequent	93.9	93.0	Semipermanently Flooded	–	–
		Low					
(ppp) Monroe	Seminole and Volusia	Frequent High	2.8	1.9	–	30	2
		Average	1.2	0.3	–	180	1.5
		Frequent	0.5	-0.4	–	120	5
		Low					
(qqq) Nettles/English	Putnam	Frequent High	44.3	43.3	Seasonally Flooded	–	–
		Average	42.7	41.9	Typically Saturated	–	–
		Frequent	41.7	40.7	Semipermanently Flooded	–	–
		Low					
(rrr) Nicotoon	Marion	Frequent High	54.7	53.7	Seasonally Flooded	–	–
		Average	53.3	52.3	Typically Saturated	–	–
		Frequent	51.9	50.9	Semipermanently Flooded	–	–
		Low					
(sss) Norris	Lake	Frequent High	29.7	28.7		30	1.7
		Frequent	27.7	26.7		120	7.6
		Low					
(ttt) North Como Park	Putnam	Frequent High	41.3	40.4	Seasonally Flooded	–	–
		Average	39.7	38.8	Typically Saturated	–	–

System Name	County	Minimum Level	Level (ft NGVD)	Level (ft NAVD)	Hydroperiod Category	Duration (days)	Return Interval (years)
(uuu) North Talmadge	Volusia	Frequent Low	38.5	37.6	Semipermanently Flooded	-	-
		Frequent High	55.6	54.5	Seasonally Flooded	-	-
		Average	54.4	53.3	Typically Saturated	-	-
		Frequent Low	52.9	51.9	Semipermanently Flooded	-	-
(vvv) 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	-	-
		Frequent High	37.1	35.5	Seasonally Flooded	-	-
(www) Orio	Putnam	Average	35.6	34.6	Typically Saturated	-	-
		Frequent Low	34.7	33.7	Semipermanently Flooded	-	-
		Frequent High	39.3	38.2	Seasonally Flooded	-	-
		Average	37.5	36.4	Typically Saturated	-	-
(xxx) Pam	Putnam	Frequent Low	36.1	35.0	Semipermanently Flooded	-	-
		Frequent High	53.5	52.5	Seasonally Flooded	-	-
		Average	52.6	51.6	Typically Saturated	-	-
		Frequent Low	51.2	50.2	Semipermanently Flooded	-	-
(yyy) Pearl	Orange	Frequent High	34.4	33.3	Seasonally Flooded	-	-
		Average	33.8	32.8	Typically Saturated	-	-
		Frequent Low	32.4	31.3	Semipermanently Flooded	-	-
		Frequent High	107.7	106.6	Seasonally Flooded	-	-
(zzz) Pierson	Volusia	Average	106.8	105.7	Typically Saturated	-	-
		Frequent Low	105.4	104.3	Semipermanently Flooded	-	-
		Frequent High	56.0	54.9	Seasonally Flooded	-	-
		Average	53.0	52.0	Typically Saturated	-	-
(aaaa) Pine Island	Lake	Frequent Low	50.9	49.9	Semipermanently Flooded	-	-
		Frequent High	42.3	41.3	Seasonally Flooded	-	-
		Average	40.0	39.0	Typically Saturated	-	-
		Frequent Low	56.0	54.9	Seasonally Flooded	-	-
(bbbb) Prevatt	Orange	Frequent High	53.0	52.0	Typically Saturated	-	-
		Average	50.9	49.9	Semipermanently Flooded	-	-
		Frequent Low	42.3	41.3	Seasonally Flooded	-	-
		Average	40.0	39.0	Typically Saturated	-	-
(cccc) Prior	Putnam	Frequent High	42.3	41.3	Seasonally Flooded	-	-
		Average	40.0	39.0	Typically Saturated	-	-
		Frequent Low	42.3	41.3	Seasonally Flooded	-	-

System Name	County	Minimum Level	Level (ft NGVD)	Level (ft NAVD)	Hydroperiod Category	Duration (days)	Return Interval (years)
(dddd) Purdom	Volusia	Frequent Low	39.0	38.0	Semipermanently Flooded	–	–
		Frequent High	36.3	35.3		30	2
		Average	35.4	34.3		180	1.7
		Frequent Low	34.4	33.3		120	5
(eeee) 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	–	–
(ffff) 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	–	–
(gggg) 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	–	–
(hhhh) 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	–	–
(iiii) Shaw	Volusia	Frequent High	36.7	35.7	–	30	3
		Average	35.4	34.4	–	180	1.7
		Frequent Low	33.7	32.7	–	120	3
(jjjj) 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	–	–
(kkkk) 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	–	–
(lll) South	Brevard	Frequent High	16.7	15.5	Temporarily Flooded	–	–
		Average	15.3	14.0	Typically Saturated	–	–

System Name	County	Minimum Level	Level (ft NGVD)	Level (ft NAVD)	Hydroperiod Category	Duration (days)	Return Interval (years)
(mmmm) South Como Park	Putnam	Frequent Low	13.8	12.6	Semipermanently Flooded	-	-
		Frequent High	38.1	37.2	Seasonally Flooded	-	-
		Average	36.7	35.8	Typically Saturated	-	-
		Frequent Low	35.3	34.4	Semipermanently Flooded	-	-
(nnnn) 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	-	-
		Frequent High	39.4	38.4	Seasonally Flooded	-	-
(oooo) Stella	Putnam	Average	38.6	37.6	Typically Saturated	-	-
		Frequent Low	37.2	36.1	Semipermanently Flooded	-	-
		Frequent High	85.9	84.9	Temporarily Flooded	-	-
		Average	83.5	82.4	Typically Saturated	-	-
(pppp) Sunset	Lake	Frequent Low	81.0	79.9	Semipermanently Flooded	-	-
		Frequent High	93.0	91.9	Temporarily Flooded	-	-
		Average	90.3	89.2	Typically Saturated	-	-
		Frequent High	40.4	39.5	Seasonally Flooded	-	-
(qqqq) Swan	Putnam	Average	38.9	38.0	Typically Saturated	-	-
		Frequent Low	37.5	36.5	Semipermanently Flooded	-	-
		Frequent High	36.6	35.7		30	3
		Average	35.1	34.2		180	1.7
(rrrr) Sylvan	Seminole	Frequent Low	33.0	32.0		120	5
		Frequent High	23.7	22.7	-	30	5
		Frequent Low	19.4	18.4	-	120	10
		Frequent High	37.1	36.2	-	30	3
(ssss) Tarhoe	Putnam	Average	35.4	34.5	-	180	1.7
		Frequent Low	32.8	31.9	-	120	5
		Frequent High	23.3	22.3	Seasonally Flooded	-	-
		Frequent High					
(tttt) Three Island Lakes	Volusia	Frequent High					
		Frequent Low					
		Frequent High					
(uuuu) Trone	Putnam	Frequent High					
		Frequent Low					
		Frequent High					
(vvvv) Trout	Volusia	Frequent High					
		Frequent High					

System Name	County	Minimum Level	Level (ft NGVD)	Level (ft NAVD)	Hydroperiod Category	Duration (days)	Return Interval (years)
(wwww) Tuscawilla	Alachua	Average	20.9	20.0	Typically Saturated	–	–
		Frequent	17.7	16.8	Semipermanently Flooded	–	–
		Low					
(xxxx) Upper Lake Louise	Volusia	Frequent	77.6	76.4	Seasonally Flooded	–	–
		High					
		Average	74.6	73.4	Typically Saturated	–	–
(yyyy) Washington	Brevard	Frequent	73.2	72.0	Semipermanently Flooded	–	–
		High					
		Average	35.3	34.4	Seasonally Flooded	–	–
(zzzz) Wauberg	Alachua	Frequent	34.6	33.6	Typically Saturated	–	–
		High					
		Average	33.2	32.2	Semipermanently Flooded	–	–
(aaaa) Weir	Marion	Frequent	15.6	14.2	Seasonally Flooded	–	–
		High					
		Average	14.2	12.8	Typically Saturated	–	–
(bbbbb) Winnemissett	Volusia	Frequent	12.8	11.4	Semipermanently Flooded	–	–
		High					
		Average	67.4	66.4	Seasonally Flooded	–	–
(ccccc) Winona	Volusia	Frequent	67.1	66.1	Typically Saturated	–	–
		High					
		Average	65.6	64.7	Semipermanently Flooded	–	–
		Frequent	57.2	56.2	Seasonally Flooded	–	–
		High					
		Average	56.4	55.4	Typically Saturated	–	–
		Frequent	54.9	53.9	Semipermanently Flooded	–	–
		High					
		Average	59.5	58.5	Seasonally Flooded	–	–
		Frequent	57.8	56.8	Typically Saturated	–	–
		High					
		Average	56.0	55.0	Semipermanently Flooded	–	–
		Frequent	36.1	35.1	Seasonally Flooded	–	–
		High					
		Average	33.5	32.5	Typically Saturated	–	–
		Frequent	32.0	31.0	Semipermanently Flooded	–	–
		High					
		Average					

(5) 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.

(6) 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.

Rulemaking Authority 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).