

Appendix 8B-1a: Non-Everglades Construction Project Water Quality Sampling Sites, Monitoring Schedule, and Flow Volumes

Table 1. Water quality monitoring schedule for non-ECP discharge structures and additional upstream monitoring locations.

AREA	Non-ECP PERMIT STRUCTURE	WATER QUALITY SAMPLING SITE	WATER QUALITY MONITORING SCHEDULE						WATER QUALITY COMMENTS	
			Physical	Nutrients	Major Ions	Trace Metals	Pesticides Water	Pesticides Sediment		
INTO	ACME1DS	ACME1DS	BWF/M	BWF/M	QTR	SA	QTR	SA		
	ACME1 + (Upstream of ACME1DS)	VOW1		Weekly Flowing (autosampler)					Sampling conducted by Village of Wellington. TP collected by autosampler.	
	G-94D	G94D	BWF/M	BWF/M	QTR	SA	QTR	SA		
	ACME2 + (Upstream of G94D)	VOW2		Weekly Flowing (autosampler)					Sampling conducted by Village of Wellington. TP collected by autosampler.	
	G-123	G123	BWF/M	BWF/M (autosampler)	QTR	SA	QTR	SA		
	S-9	S9	BWF/M	Weekly Flowing (autosampler)	QTR	SA	QTR	SA	TP collected by autosampler.	
	S-9A	S9A	BWF/M	BWF/M except TP-WF/M Grab (autosampler)	QTR				New station, sampling started in WY2003	
	S-14	S14	BWF	BWF	QTRF	SAF				
	S-18C	S18C	BWF/M	BWF/M (autosampler)	QTR	SA	QTR	SA		
	S-140	S140	BWF/M	BWF/M (autosampler)	QTR	SA	QTR	SA	TP collected by autosampler, nitrogen species collected by grab	
	S-175	S175	BWF/M	BWF/M	QTR	SA				
	S-190	S190	BWF/M	BWF/M (autosampler)	QTR	SA	QTR	SA	TP collected by autosampler, nitrogen species collected by grab	
	S-332	S332	BWF/M	BWF/M	QTR	SA	QTR	SA		
	NSID1	NSIDSP01	BWF	BWF	QTRF	SAF	QTRF	SAF		
S38B		BWF	BWF	QTRF	SAF	QTRF	SAF			
WITHIN	G-64	G64	BWF	BWF	QTRF *				Monitoring Fe, Mg, Ca phased out *	
	G-69	G69	BWF	BWF	QTRF *				Monitoring Fe, Mg, Ca phased out *	
	G-71, S-346, S-347	S12D	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *	
	S-10E	S10E	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *	
	S-141	S34	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *	
	S-142	S142	BWF/M	BWF/M	QTR *		QTRF	SAF	Monitoring Fe, Mg, Ca phased out *	
	S-143	S11A	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *	
	S-144	S144							Discontinued sampling in favor of surrogate location at S-145 *	
	S-145	S145	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *	
	S-146	S146							Discontinued sampling in favor of surrogate location at S-145 *	
	S-151	S151	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *	
	S-339, S-340	C123SR84	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *	
	FROM	G-94A, G-94B, G-94C	G94B	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *
		S-31	S31	BWF/M	BWF/M	QTR *		QTR	SA	Monitoring Fe, Mg, Ca phased out *
S-34		S34	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *	
S-38		S38	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *	
S-39		S39	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *	
S-197		S197	BWF	BWF	QTRF *				Monitoring Fe, Mg, Ca phased out *	
S-333		S333	BWF/M	BWF/M	QTR	SA				
S-334		S334	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *	
S-337		S31	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *	
S-343A, S-343B		US41-25	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *	
S-344		S344	QTR	QTR	QTR *				Monitoring Fe, Mg, Ca phased out *	
C-111 BASIN	S-174 +	S176	BWF/M	BWF/M	QTR	SA	QTR	SA		
	S-177 +	S177	BWF/M	BWF/M	QTR	SA	QTR	SA		
	S-178 +	S178	BWF/M	BWF/M	QTR	SA	QTR	SA		
	S-331 +, S-173 +	S331-173	BWF/M	BWF/M	QTR	SA				
	S-331	S331					QTR	SA	S173 is not listed in Permit, but is adjacent to and flows in same direction as S331	
S-332D	S332D		Weekly (autosampler & Grab) and only TP					S-332D is not listed in Permit, but it needs to provide information		

- Notes:
- 1) Water quality sample site is located on upstream side of permitted structure, unless otherwise noted with different representative sampling location.
 - 2) Structure names with a "+" are upstream of Non-ECP INTO structures and are additional monitoring locations.
 - 3) * indicates monitoring requirement eliminated in the November 1999 Non-ECP Permit Modification.
 - 4) Table Legend:

BWF/M = Biweekly if Flowing/Otherwise Monthly	SA = Semiannually
BWF = Biweekly if Flowing	SAF = Semiannually if Flowing
QTR = Quarterly	1 WS - 1 DS = 1 Wet Season and 1 Dry Season
QTRF = Quarterly if Flowing	

Table 2. Flow volume and annual flow-weighted mean TP concentrations for non-ECP structures during WY2003 (May 1, 2002 through April 30, 2003).

AREA	NON-ECP PERMIT STRUCTURE	WATER QUALITY SAMPLING SITE	FLOW		Monthly Flow Volumes (acre-ft) (May 1, 2002 - April 30, 2003)												Total Flow Volume (acre-ft)	Annual Flow Weighted Mean TP (ppb)	
			STATION	DBKEY	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr			
INTO	ACME1DS	ACME1DS	n/a	n/a	See flow data from ACME 1												n/a	76	
	ACME1 + (Upstream of ACME1DS)	VOW1	ACME1	OH647	0	1,320	5,258	961	535	0	0	240	0	0	295	205	8,813	80	
	G-94D	G94D	n/a	n/a	See flow data from ACME 2												n/a	92	
	ACME2 + (Upstream of G94D)	VOW2	ACME2	OH648	0	1,451	4,502	1,899	867	0	0	233	0	0	335	181	9,469	119	
	G-123	G123	G123_P	K5481	0	0	0	0	0	0	0	0	0	0	0	0	0	0	nd
	S-9	S9	S9_P	K5483	8,188	46,452	42,025	33,305	34,244	20,572	19,777	21,899	9,678	7,312	9,003	11,846	264,301	17	
	S-9A	S9A	S-9A	PC168	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	0	0	nd
	S-14	S14	S14_C	K5485	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NPF
	S-18C	S18C	S18C_S	15760	1,455	30,991	35,006	22,749	20,592	7,344	1,726	8,065	514	467	3,205	2,818	134,932	7	
	S-140	S140	S140_TOT	06754	0	18,608	42,229	19,821	19,928	11,398	5,133	7,078	3,993	1,364	4,465	2,351	136,367	62	
	S-175	S175	S175_C	15752	0	1,305	159	0	5	0	0	3	0	920	1	0	2,396	9	
	S-190	S190	S190_S	K5501	1	2,928	28,639	18,428	19,051	4,770	2,278	7,048	3,072	488	1,154	169	88,026	86	
	S-332	S332	S332_P	15753	0	354	0	2	0	0	0	183	8	0	0	0	547	6	
	NSID (S38B)	NSIDSP01	NSPRNG_C2A	PS225	0	470	218	0	0	0	0	0	0	0	0	0	688	nd	
S38B		NSPRNG_C2A	PS225	0	470	218	0	0	0	0	0	0	0	0	0	688	nd		
WITHIN	G-64	G64	G64_C	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	G-69	G69	G69_C	K5480	-18	215	526	488	620	605	516	483	-74	-88	-104	219	3,388	NPF	
	G-71, S-346, S-347	S12D	S12D_S	FE774	1,143	4,799	36,187	44,041	43,343	36,459	19,587	13,044	10,060	4,455	4,596	8,736	226,449	12	
	S-10E	S10E	S10E_C	K5484	0	0	0	0	0	0	0	1	0	0	0	0	1	62	
	S-141	S34	S141_W	K5493	0	0	0	45	1	0	0	0	0	0	0	0	46	6	
	S-142	S142	S142_C	K5494	0	0	0	0	0	3,796	-459	5,676	22,497	12,954	4,596	0	49,060	29	
	S-143	S11A	S143_C	K5495	3,225	0	0	0	0	0	6,544	23,568	0	1,108	13,033	14,217	61,694	26	
	S-144	S144	S144_C	K5497	0	1,039	7,588	5,368	1,416	4,107	2,006	4,783	0	1,397	2,351	1,342	31,396	nd	
	S-145	S145	S145_C	K5498	0	1,475	9,467	5,928	1,518	4,426	2,304	6,095	0	2,662	3,893	1,887	39,656	14	
	S-146	S146	S146_C	K5499	0	770	7,602	4,859	1,284	3,684	1,700	4,201	0	-360	-862	-87	22,790	nd	
	S-151	S151	S151_C	K5500	23,961	6,421	41,403	35,739	13,451	4,141	0	0	0	0	0	0	125,116	20	
	S-333	S333	S333_S	15042	2,460	0	0	31,530	6,696	2,403	2,585	8,916	44,563	42,397	32,030	33,485	207,064	11	
	S-339	C123SR84	S339_S	K5506	52	0	43,939	38,450	45,922	40,646	38,294	47,831	0	0	0	14,413	269,546	41	
	S-340	C123SR84	S340_S	K5507	252	0	17,069	31,714	29,708	6,121	617	662	737	738	914	20,680	109,209	71	

Notes: 1) Water quality sample site is located on upstream side of permitted structure, unless otherwise noted with different sampling location.
 2) n/a indicates that flow and/or stage data is not available, or that structure is not appropriately instrumented to capture information.
 3) Structure names with a "+" are upstream of Non-ECP INTO structures and are additional monitoring locations.
 4) ACME1DS and G-94D are not instrumented for flow calculation. Flow-weighted mean TP concentration was determined by considering the TP data from these sites with the flow data from the upstream pump stations (ACME 1 and ACME 2, respectively).
 5) G-123 structure is not monitored for flow (reported volume is an estimate), arithmetic mean TP was calculated by considering all samples collected.
 6) S-14 is not instrumented for flow calculation, however operational records indicate no operation during the water year.
 7) NPF indicates either structure closed or that no positive flow was recorded on sampling days, thus a flow-weighted mean could not be calculated.

Table 2. Continued.

AREA	NON-ECP PERMIT STRUCTURE	WATER QUALITY SAMPLING SITE	FLOW		Monthly Flow Volumes (acre-ft) (May 1, 2002 - April 30, 2003)												Total Flow Volume (acre-ft)	Annual Flow Weighted Mean TP (ppb)		
			STATION	DBKEY	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr				
FROM	G-94A	G94B	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	G-94B	G94B	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	G-94C	G94B	G94C_C	MW385	0	0	0	1,543	587	0	8,336	12,841	44	18	25	1	23,397	26	n/a	
	S-31	S31	S31_C	K5486	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23
	S-34	S34	S34_C	K5487	2,150	0	18	0	0	0	6,223	25,641	27,356	17,130	17,337	17,741	113,596	26	24	
	S-38	S38	S38_C	K5488	306	417	280	27	0	44	44	0	0	592	11,669	20,436	33,816	24	30	
	S-39	S39	S39_S	K5489	12,033	1,699	11,095	23,777	24,967	6,343	4,494	30,069	40,868	17,211	15,053	19,088	206,697	30	nd	
	S-197	S197	S197_C	15763	0	7,992	8,139	0	0	0	0	0	0	0	0	0	0	16,131	12	23
	S-334	S334	S334_S	FB752	1	0	0	12,064	5,864	2,518	0	0	6,411	18,432	9,624	21,343	76,259	12	23	
	S-337	S31	S337_C	K5505	23,596	0	0	0	0	0	0	0	0	0	0	0	0	23,596	23	8
	S-343A	US41-25	S343A_C	K5508	0	0	2,783	4,606	4,408	3,871	0	0	0	0	0	0	0	15,668	8	8
	S-343B	US41-25	S343B_C	K5509	0	0	3,303	5,027	4,884	4,303	4	0	0	0	0	0	0	17,522	9	9
	S-344	S344	S344_C	K5511	0	0	2,334	3,704	3,470	3,103	0	0	0	0	0	0	0	12,610	6	6
	C-111 BASIN	S-174 +	S176	S174_S	15769	4,988	582	0	0	0	6	0	0	0	757	1	0	6,334	6	6
S-177 +		S177	S177_S	15772	365	21,868	26,450	15,621	13,471	4,087	0	4,928	0	3,908	5,148	2,298	98,143	6	6	
S-178 +		S178	S178_C	03952	0	593	0	0	-1,199	0	0	7	0	0	0	0	-598	29	29	
S-331 +		S331-173	S331_P	P6935	0	4,532	20,986	25,877	25,031	16,162	5,228	8,712	3,155	2,739	10,103	11,216	133,741	7	7	
S-173 +		S331-173	S173_C	FB759	4,668	2,603	266	0	0	174	1,391	734	4,596	3,489	1,904	1,073	20,899	8	8	
S-332D +		S-332D	S-332D	MS947	2	1,090	26,115	20,531	2,642	8,783	1,322	4,530	3,798	276	2,791	3,586	75,466	6	6	

Notes: 1) Water quality sample site is located on upstream side of permitted structure, unless otherwise noted with different sampling location.

2) n/a indicates that flow and/or stage data is not available, or that structure is not appropriately instrumented to capture information.

3) Structure names with a "+" are upstream of Non-ECP INTO structures and are additional monitoring locations.

4) G-94A, G-94B, G-94C are not instrumented for flow calculations. Estimate provided for March 2001 when G-94C backflowed into WCA-1.

5) S-331 and S-173 flow records were combined to determine the annual flow-weighted mean TP.

6) NPF indicates either structure closed or that no positive flow was recorded on sampling days, thus a flow-weighted mean could not be calculated.