Appendix 2-2: Annual Permit Report for the L-8 Reservoir Project

Permit Report (May 1, 2013–April 30, 2014)
Permit Number: 0188365

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SUMMARY

Based on Florida Department of Environmental Protection (FDEP) permit reporting guidelines, **Table 1** lists key permit-related information associated with this report. **Table 2** lists the attachments included with this report. **Table A-1** in Attachment A lists specific pages, tables, graphs, and attachments where project status and annual reporting requirements are addressed. This annual report satisfies the reporting requirements specified in the permit.

Table 1. Key permit-related information.

Project Name:	L-8 Reservoir Project
Permit Number:	0188365-019
Issue and Expiration Dates: 0188365-005: 0188365-019:	 Issued: 3/30/2007 Issued: 11/06/2013; Expires: 1/12/2017
Project Phase:	Construction and Operation
Permit Specific Condition Requiring Annual Report:	11
Reporting Period:	May 1, 2013–April 30, 2014
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Table 2. Attachments included with this report.

Attachment	Title
A	Specific Conditions and Cross-References
B	Water Quality Data
C	Hydrologic Data

PROJECT STATUS

This report provides an evaluation of the results of L-8 Reservoir Project operations, and assesses water quality at SW6IN and the two mixing zone sites (L8MZBS and L8MZBN) during Water Year 2014 (WY2014) (May 1, 2013–April 30, 2014).

Dewatering began in WY2013, with water levels reaching a point in December 2012 that necessitated the removal of the existing electric pump. Temporary pumps with a combined discharge capacity of up to 300 cfs were installed by the contractor to continue dewatering. No inflows occurred during WY2014 due to the dewatering, and flows at the reservoir outflow were nearly continuous, resulting in 55,141 acre-feet (ac-ft) of water discharged into the L-8 canal. Discharge flow data are provided in Attachment C.

Approximately 67 acres of flat plate concrete revetment and Pyramat® High Performance Turf Reinforcement Mat were installed along the perimeter levees. Construction began for the outflow pump station (G-539), inflow bridge and spillway (G-538), and the canal divide structure (G-541). **Figure 1** shows the locations of these structures.

During WY2014, the South Florida Water Management District (SFWMD or District) collected surface water quality samples for nutrients, gross alpha, sulfate, and physical parameters from the project's outfall at SW6IN. In addition, specific conductance was monitored at the mixing zone boundaries 800 meters north (L8MZBN) and south (L8MZBS) of SW6IN. Chlorides were calculated from the specific conductance readings. Mercury monitoring was temporarily suspended during Fiscal Year 2014 (FY2014) (October 1, 2013–September 30, 2014), in accordance with a verbal agreement with the FDEP (for which written approval was received on June 4, 2014), because of safety and access issues during the construction and dewatering.

One gross alpha sample collected in WY2014 at SW-6IN (the outfall to L-8 canal) during the dewatering operations exceeded the state Class III criterion. See the *Gross Alpha* subsection of the *Water Quality* section of this report for details. The operational permit requires that the District maintain specific conductance levels below the state's surface water criterion (1,275 microsiemens per centimeter (µS/cm)) at the ends of the north and south mixing zones. During the WY2014 dewatering activities, the Class III criterion was exceeded 3.9 percent of the time at the south mixing zone, and 0.8 percent at the north mixing zone. Based on analyses and results presented in this report, these exceedances may be attributed to the project's dewatering activities. Since the beginning of the test phase operation in December 2001, nutrient concentrations within the L-8 Reservoir Project have been lower than in samples collected from the L-8 canal.

CONCLUSIONS REGARDING PROJECT SUCCESS

During WY2014, the project underwent dewatering and construction activities. Conclusions about project success will be possible when construction is complete and the project is in normal operations.

PROBLEMS ENCOUNTERED

In June 2013, fly rock from a scheduled blast impacted one least tern nest egg.

ACTIONS TO ADDRESS PROBLEMS

In accordance with permit conditions, notification of this incident was immediately provided to FDEP, FWC, and FWS. The Blasting Plan was revised to include pre-blasting surveys for threatened and endangered species and to set up buffers if species were observed, in order to minimize impacts. Since adoption of these protective measures, no further incidents have occurred on the L-8 construction site.

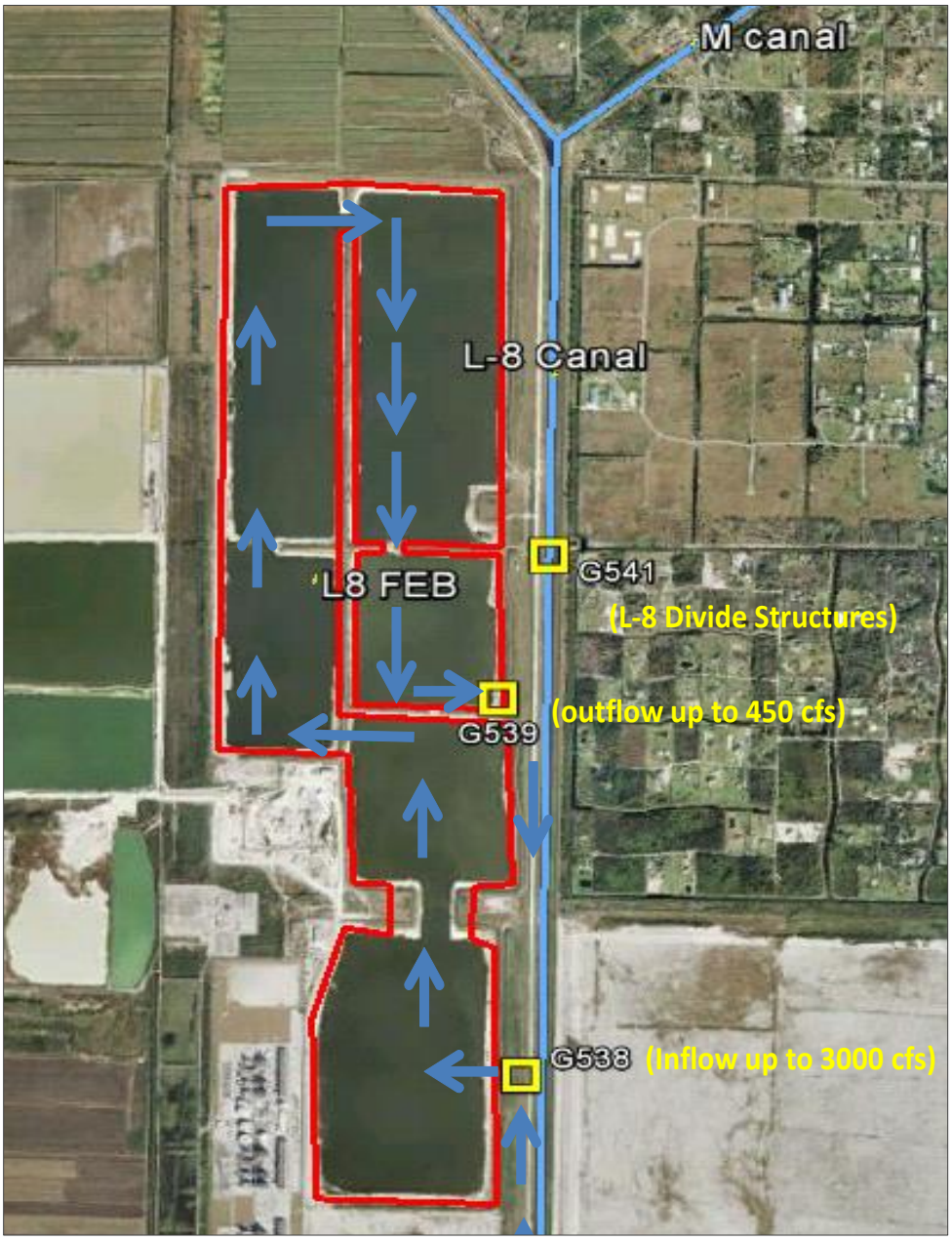

Figure 1. L-8 FEB Project facilities when completed.

INTRODUCTION

PROJECT OVERVIEW

The L-8 Reservoir Project covers approximately 950 acres, at an average depth of 50 feet, and is made up of a series of interconnected rock pits from the mined-out portions of a limestone quarry in western Palm Beach County. The reservoir is capable of storing approximately 45,000 ac-ft of water. This report includes data compilation, review and analysis, and a characterization of the water quality impacts from the L-8 Reservoir Project.

Water quality sampling for the L-8 Reservoir Project began in November 2001. In February 2003, the FDEP executed a Consent Agreement (OGC File No. 030272-50 RO) that allowed the connection of Pits C and D (Cell 1) to the reservoir project pits. In March 2003, the District submitted the first annual monitoring report to the FDEP. This report presented the results of the L-8 Reservoir Project's monitoring program. The initial objective of the monitoring program was to ensure that the discharge water met water quality standards, and that the water quality was suitable for water supply and environmental deliveries through the City of West Palm Beach's M canal.

In 2012, the Restoration Strategies Regional Water Quality Plan (SFWMD, 2012) facilitated a change in the District's mandate that resulted in a repurposing of the L-8 Reservoir Project for use as a flow equalization basin (FEB). The project's new purpose is to attenuate peak stormwater flows and optimize Stormwater Treatment Area 1 East (STA-1E) and Stormwater Treatment Area 1 West (STA-1W) inflow volumes to improve phosphorus treatment performance to meet state water quality standards.

Additional project features are required to allow full use of the storage capabilities of the FEB: an inlet structure, a discharge pump station, embankment protection measures, and strategic dredging to totally interconnect the cells. On November 6, 2013, FDEP issued CERPRA Modification 0188365-019, authorizing construction of the new pump station and inflow spillway, and cycle testing of the facility when complete. Hence, during WY2014, reservoir operation was limited to dewatering all cells, and starting the construction of a new spillway inlet (Cell 6), a 3-stage submersible dual direction outflow pump (Cell 3), and armoring of the reservoir's protective levees. Once construction of these features is complete, the L-8 Reservoir Project will initially function as a multipurpose reservoir to capture, store, and deliver stormwater runoff to STA-1E, STA-1W, and, if available, water may be used to assist in meeting Loxahatchee River flow restoration targets. After the STA-1W Expansion Project is completed and the Mecca Shallow Water Impoundment Project for the Loxahatchee River flow restoration is constructed, long-term operations of the L-8 Reservoir Project will be designated to STA-1E and STA-1W.

Description of Regional System

The L-8 Basin encompasses approximately 170 square miles, with the majority located in northwestern Palm Beach County, and approximately two square miles in southwestern Martin County (**Figure 2**). The majority of the land in the Upper L-8 Basin is comprised of the J.W. Corbett Wildlife Management Area, which is owned and managed by the Florida Fish and Wildlife Conservation Commission, and by the DuPuis Reserve, which is owned and managed by the SFWMD. The Lower L-8 Basin, located downstream of the M canal, includes the Indian Trail Improvement District (ITID) service area and agricultural and rural area.

Regional flow within the L-8 Basin (**Figure 3**) is complex and has several operating strategies that may affect flow into and out of the system. The upstream water source is Lake Okeechobee, via SFWMD's Culvert 10A. Inflow into the L-8 canal through Culvert 10A is a

function of the head difference between the lake and canal water levels. During rain events, water is also added to the canal via sheet flow off the adjacent agricultural and natural (DuPuis Reserve and the J.W Corbett Wildlife Management areas) lands. Throughout the L-8 Basin, water is discharged into the L-8 canal for drainage as well as withdrawn for water use. Current water use consists of public water supply and irrigation. The water for public water supply is pumped using the City of West Palm Beach's Control 2 Pump Station, located on the M canal. Water then flows east via the M canal, and eventually to the city's water supply lakes, Lake Mangonia and Clear Lake, where it is withdrawn for treatment.

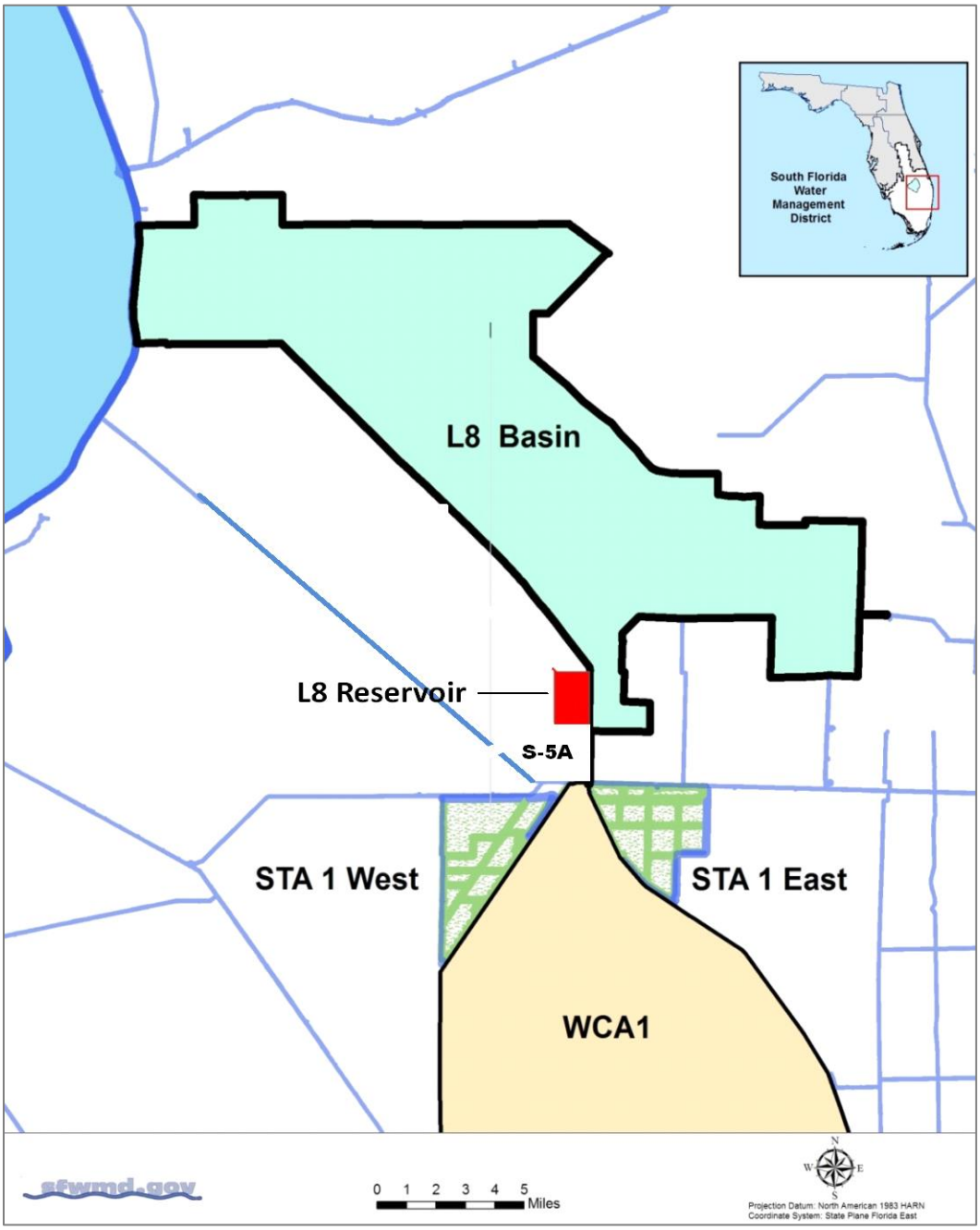

Figure 2. L-8 Reservoir and Basin.
[Note: STA – Stormwater Treatment Area and WCA1 – Water Conservation Area 1]

Discharge sources to the L-8 canal include Lake Okeechobee, the L-8 Reservoir at Palm Beach Aggregates, Inc. (PBA), ITID, and potentially Water Conservation Area 1 (WCA-1). Discharges from ITID consist of stormwater runoff from the 19,000-acre M-1 Basin. Water is discharged from the ITID M-1 Basin Impoundment Area through its L-8 outfall structure located approximately 11 miles north of State Road 80. Discharges from WCA-1 would likely only occur if the Arthur R. Marshall Loxahatchee National Wildlife Refuge water schedule could not be met by moving water south.

The L-8 canal withdrawal/discharge for the reservoir is south of the confluence of the L-8 and M canals. The reservoir was used for storage of excess runoff from the basin in the wet season to reduce discharges from the basin to the STA-1E, STA-1W, and to tide via the C-51 canal. During WY2014, however, no water storage took place due to the dewatering and commencement of construction of the new outfall and inflow structures.

PERMIT HISTORY

The original CERPRA permit, modifications, and exemptions issued to SFWMD for the L-8 Reservoir Project include:

- EI 50-0188365-001, L-8 Reservoir Testing Project
- EI 50-0188365-002, issued June 24, 2002, involved installing two 40,000 GPM pumps at Palm Beach Aggregates rock pits A and B as part of implementing the L-8 Reservoir Testing Project.
- EI 50-0188365-003, L-8 Reservoir Testing Project
- EI 50-0188365-004, L-8 Reservoir Testing Project
- 0188365-005, issued March 30, 2007, suspended the L-8 Reservoir Testing Project, and was the original CERPRA operation permit.
- 0188365-006, issued April 4, 2007, corrected a typographical error in the permit expiration date.
- 0188365-007, issued August 10, 2007, established a temporary 800-meter mixing zone for specific conductance, extending from the point of discharge of L-8 Reservoir Project.
- 0188365-008, issued October 5, 2007, removed the requirement to monitor specific conductance at SW6IN, and changed the chloride calculation regression equation for the project.
- 0188365-009, issued September 5, 2008, authorized the connection of three additional cells (3, 6, and 7) to the existing project infrastructure through the removal of two earthen plugs in Cell 3 to a depth of -10 ft NGVD.
- 0188365-010, issued July 30, 2009, eliminated all pesticide monitoring for the permit.
- 0188365-011, issued August 25, 2009, was a 2-year extension to the period for the previously authorized temporary 800-meter mixing zone for chloride in the L-8 Canal.
- 0188365-012, issued December 31, 2009, updated mercury monitoring requirements to reflect the transfer from Phase 2-Tier 1 (Routine Monitoring During Stabilization Period) to Phase 3-Tier 1 (Routine Operational Monitoring from Year 4 to Year 9). Surface water mercury sampling was

discontinued, mosquitofish collection frequency was reduced to semiannual, and large-bodied fish collection frequency was reduced to once every three years.

- 0188365-013, an exemption issued February 28, 2011, granted temporary relief from Specific Condition 22 of the permit (0188365-012), to allow a 30-day (non-consecutive) operational pilot test to study the complexities (seepage rates, evaporation, pump sizing, etc.) of dry season deliveries from the L-8 Reservoir to the NW fork of the Loxahatchee River.
- 0188365-014, an exemption issued April 4, 2011, provided a 30 non-consecutive day extension to continue the dry season operational pilot test.
- 0188365-015, issued July 21, 2011, was a 2-year extension to the period for the previously authorized temporary 800-meter mixing zone for chloride in the L-8 Canal. This modification also changed the calculation used to convert specific conductance values to chloride values.
- 0188365-016, issued January 12, 2012, with an expiration date of January 12, 2017, renewed the permit for another five years and incorporated clerical changes.
- 0188365-017, issued March 29, 2013, was a modification to begin construction of the reservoir levee revetments.
- 01888365-018, issued March 6, 2013, allowed an increase in the maximum discharge rate from 150 cubic feet per second (cfs) to 300 cfs.
- 01888365-019, issued November 6, 2013, was a modification for construction of the new pump station and inflow spillway.
- 01888365-020, issued June 28, 2013, was a minor modification granting a 2-year extension to the period for the mixing zone.

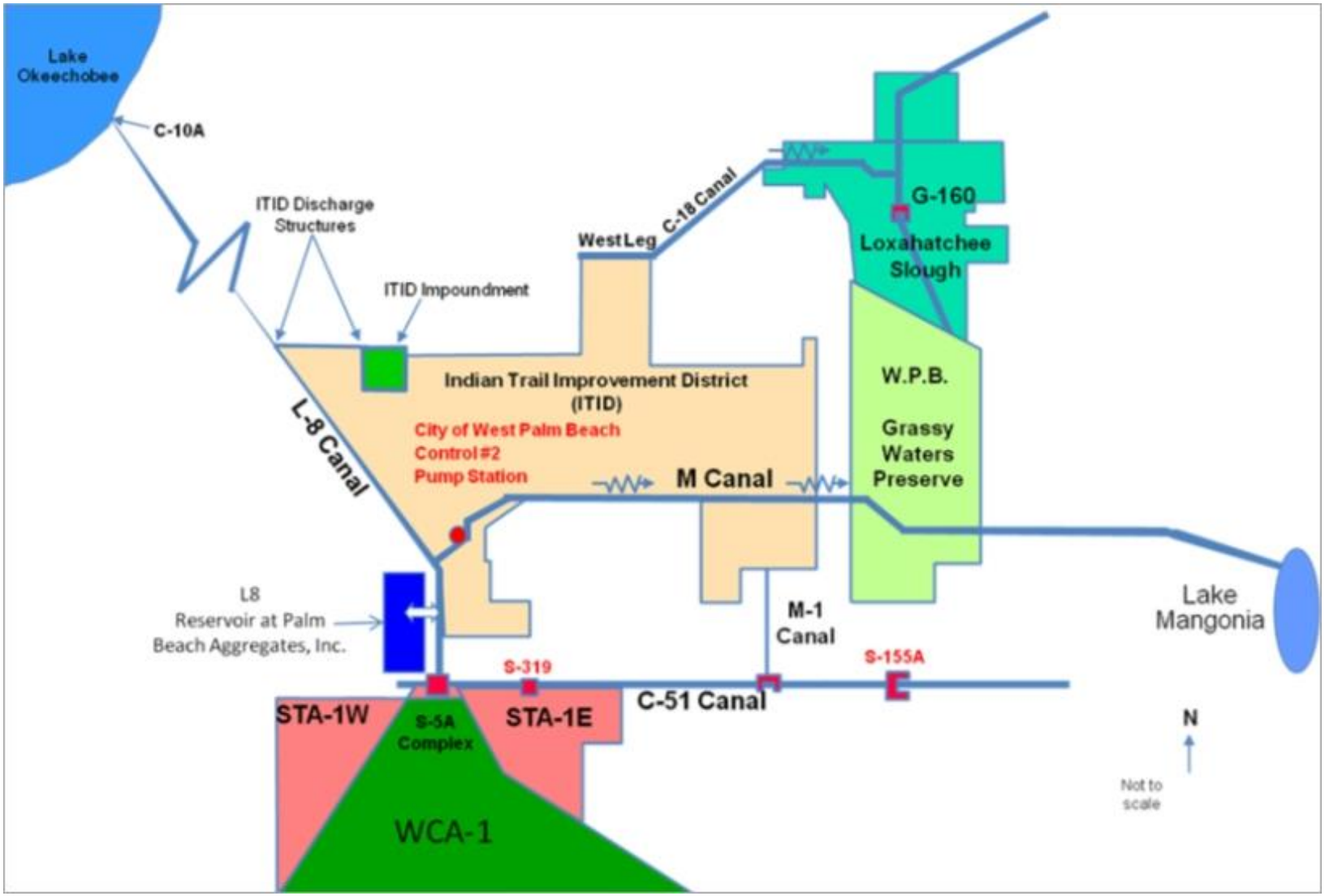

Figure 3. L-8 Reservoir Project connections to the regional system. [Note: W.P.B. – West Palm Beach.]

WATER QUALITY

MONITORING LOCATIONS

Surface water sampling locations are listed in **Table 3** and shown in **Figure 4**.

Table 3. Surface water quality monitoring locations.

Sampling Station	Station Location	Coordinates	
		Latitude	Longitude
SW6IN[a]	In the L-8 canal at the end of the L8RES culvert	264338.836	802149.982
L8MZBN	L-8 Canal 800 meters north of the SW6IN	264404.689	802147.253
L8MZBS	L-8 Canal 800 meters south of SW6IN	264313.305	802148.492

Note:

Latitude and longitude are in degrees, minutes, and decimal seconds.

[a] Interior sampling at SW6OUT was discontinued in December 2012, when construction no longer allowed access to the station. The project's outflow pump was dismantled and removed in December 2012, followed by construction contractor installation of temporary discharge pumps for dewatering the system. Discharges continued to be routed through the L8RES culverts into the L-8 canal. By agreement between the FDEP and the District, sampling continued at SW6IN to monitor discharge water quality. Compliance monitoring for specific conductance with calculated chlorides is conducted at sites L8MZBN and L8MZBS.

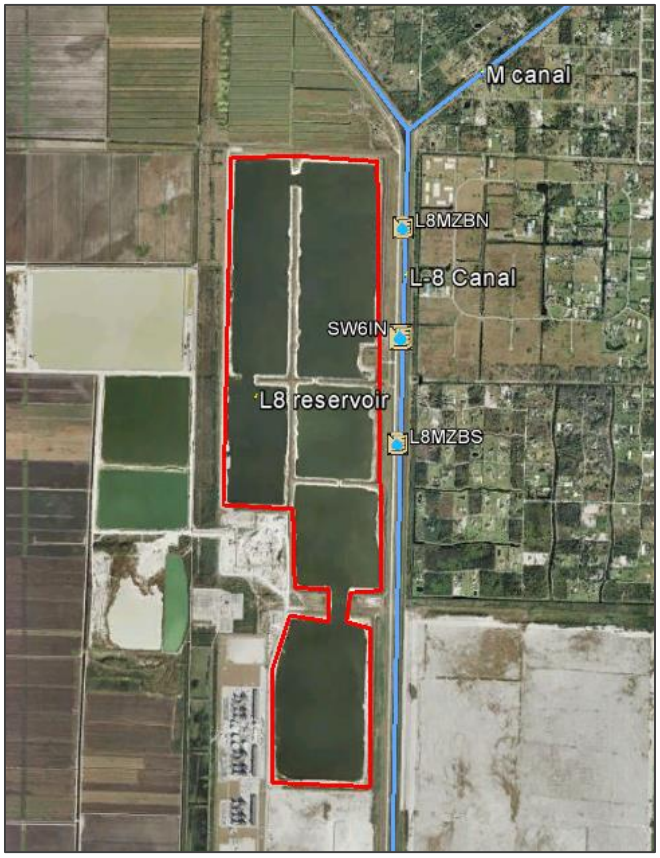

Figure 4. Surface water quality sampling and monitoring stations for the current L-8 Reservoir Project.

SAMPLING PROTOCOL

Surface water sampling for nutrients (total phosphorus (TP), total Kjeldahl nitrogen (TKN), nitrate+nitrite (NO_x), and sulfate) was conducted at the L-8 Reservoir outfall into the L-8 canal at SW6IN (Class III water) weekly during discharge events. Monitoring of specific conductance for operational and permit mandated purposes was conducted at the end of the southern (L8MZBS) and northern (L8MZBN) mixing zones within the L-8 canal (Class III water). A gross alpha sample was collected monthly at SW6IN. Physical parameters (specific conductance and temperature) were collected in situ at the mixing zone ends (L8MZBN and L8MZBS) at 15-minute intervals, and at SW6IN at 60-minute intervals. During this reporting period, all monitoring was conducted by SFWMD staff.

Water Quality Standards

Chapter 62-302.530, Florida Administrative Code (F.A.C.), Criteria for Surface Water Quality Classifications, indicates the water quality criteria for Class III waters (predominantly fresh waters) for selected analytical parameters (**Table 4**). The point of discharge in the L-8 canal and the L-8 canal itself are considered Class III waters.

Compliance with narrative and numerical Class III water quality standards were assessed at the outfall from the L-8 Reservoir Project to the L-8 canal (SW6IN) (**Tables 5**). Exceptions are chlorides (calculated) and specific conductance, for which compliance was assessed at the ends of the FDEP-approved mixing zone at L8MZBN and L8MZBS. Specific conductance has a Class III water quality standard of less than or equal to 1,275 µS/cm, or 50 percent above background, whichever is greater. The criterion of $\leq$ 1,275µS/cm was used, because the background value has never been determined.

Table 4. Water quality parameters with Florida Class III surface water criteria specified in Chapter 62-302.530, F.A.C.

Parameter	Units	Class III Surface Water Criteria
Specific Conductance	µS/cm	Not greater than 1,275 µS/cm, or 50 percent above background, whichever is greater
Dissolved Oxygen (DO)	mg/L	No more than 10% of daily average DO saturation values shall be below 38% in the Everglades bioregion
pH	Standard	Not less than 6.0 or greater than 8.5
Gross Alpha	pCi/L	Not greater than 15 pCi/L

Units:
µS/cm – microsiemens per centimeter
µg/L – micrograms per liter
mg/L – milligrams per liter
pCi/L – picocuries per liter

Table 5. Statistical summary and Class III criteria comparisons of routine grab samples for physical parameters, nutrients and radiological parameters monitored in the L-8 canal and L-8 Reservoir during WY2014. [Note: includes number of excursions for parameters with Florida Class III surface water criteria, Section 62-302.530, Florida Administrative Code (F.A.C.).]

Parameter	# of Obs.	Mean[a]	Standard Deviation	Minimum	Percentiles 25th	50th	75th	Maximum	Excursions[b]
***Outflow* (SW6IN[c])**									
Water Temperature (°C)	52	25.1	3.4	15.7	22.9	25.15	28.1	30.3	
Water pH[d]	52	7.8	N/A	7.2	7.7	7.8	8	8.4	
Dissolved Oxygen (mg/L)*	51	7.3	1.0	4.1	6.7	7.3	7.9	9.7	0
Sulfate (mg/L)	52	118.8	65.5	<0.1	71.5	117.0	146.0	367.0	
Specific Conductance (µS/cm)	344	1936	838	508	1364	1915	2378	3974	N/A[f]
Calculated Chlorides (mg/L)[e]	344	373	230	61	207	335	465	1061	
Total Phosphorus (mg/L)	51	0.145	0.137	0.045	0.099	0.124	0.152	1.071	
Total Kjeldahl Nitrogen (mg/L)	52	1.232	0.116	0.990	1.155	1.235	1.285	1.55	
Nitrate + Nitrite as N (mg/L)	51	0.147	0.144	<0.005	0.033	0.087	0.262	0.576	
Total Nitrogen (mg/L)	51	1.381	0.189	1.080	1.248	1.360	1.494	1.916	
Gross Alpha (pCi/L)	11	4.90	4.46	<0.9	1.95	4.00	4.70	15.80	1
***Mixing Zone North* (L8MZBN)**									
Specific Conductance (µS/cm)	365	489	187	188	416	452	510	1640	3
Calculated Chloride (mg/L)[e]	365	60	29	24	50	54	62	268	
***Mixing Zone South* (L8MZBS)**									
Specific Conductance (µS/cm)	363	924	250	415	765	901	1074	2990	14
Calculated Chloride (mg/L)[e]	363	126	49	50	98	120	150	666	

a. Arithmetic mean

b. Excursions from Florida Class III surface water standard, Section 62-302-530, F.A.C.; those parameters with Florida Class III criteria show number of excursions.

c. SW6IN is the outfall on the canal side of the L8RES culvert.

d. All pH values were converted to hydrogen ion concentrations prior to performing statistical summaries. The statistical summaries were back-converted to pH values using the following formula: $pH=-\log[H^+]$. "N/A" indicates that a calculation could not be made.

e. Chlorides were calculated from specific conductance using the following equation from the latest permit: (Predicted Chloride = $0.0000455(SpCond)^2 + 0.0845(SpCond) + 6.634$).

f. The Class III criterion is not applicable.

* DO mean, standard deviation, minimum, percentiles, and maximum values are reported in mg/L, however excursions were determined based on the % DO saturation calculations provided in Attachment B.

Key to units:

ºC – degrees Celsius

µS/cm – microsiemens per centimeter

mg/L - milligrams per liter

pCi/L - picocuries per liter

ASSESSMENT OF WATER QUALITY DATA

Surface water quality data collected during WY2014 for the L-8 Reservoir Project are provided in Attachment B. Fish collection for mercury monitoring was suspended in WY2014 with FDEP approval because of construction and dewatering activities.

Dissolved Oxygen

Florida's Class III fresh surface water criterion of 5.0 milligrams per liter (mg/L) for dissolved oxygen (DO) has been replaced (authorized August 2013) with a new standard requiring that no more than 10 percent of the daily average percent DO saturation (percent DO) values shall be below 38 percent in the Everglades Bioregion for daily data (62-302.533 F.A.C), or for instantaneous data (discrete measurements), the percent DO values shall not exceed the limit based on the calculated time-day specific translation (FDEP, 2013). As shown in **Table 5**, DO saturation met the Class III surface water criterion for the 51 samples measured in WY2014.

Gross Alpha

Gross alpha is a by-product of radioactive decay, and occurs naturally in the environment. It is present in varying amounts in nearly all rock, soils, and water. Gross alpha was sampled monthly at SW6IN (**Table 5**), and ranged from less than 0.9 to 15.8 picocuries per liter (pCi/L). The mean for WY2014 was 4.47 pCi/L. The state criterion is less than or equal to 15 pCi/L for state Class III waters. The state criterion for gross alpha was exceeded only one time during WY2014, with a value of 15.8 pCi/L in January 2014. It should be noted that the duplicate for this sampling event was 11.3 pCi/L, and the gross alpha results for the remainder of WY2014 were below the laboratory's practical quantification limit of 3 pCi/L.

Nutrients

Nutrients analyzed include TP, TKN, and NO_x at SW6IN. **Table 5** shows that the highest TP concentration at SW6IN (collected October 24, 2013) was 1.071 mg/L—an order of magnitude greater than the more typical TP values found. Specifically, the median TP concentration was 0.124 mg/L, and the 75th percentile was 0.152 mg/L. The maximum TP concentration anomaly was likely related to heavy suspended solids found in the sample because of the dewatering activity. The highest TKN concentration at SW6IN during this water year was 1.55 mg/L, and the highest NO_x concentration was 0.576 mg/L. **Figure 5** shows time series plots of routine grab samples for TP and total nitrogen (TN) measured at SW6IN during WY2014.

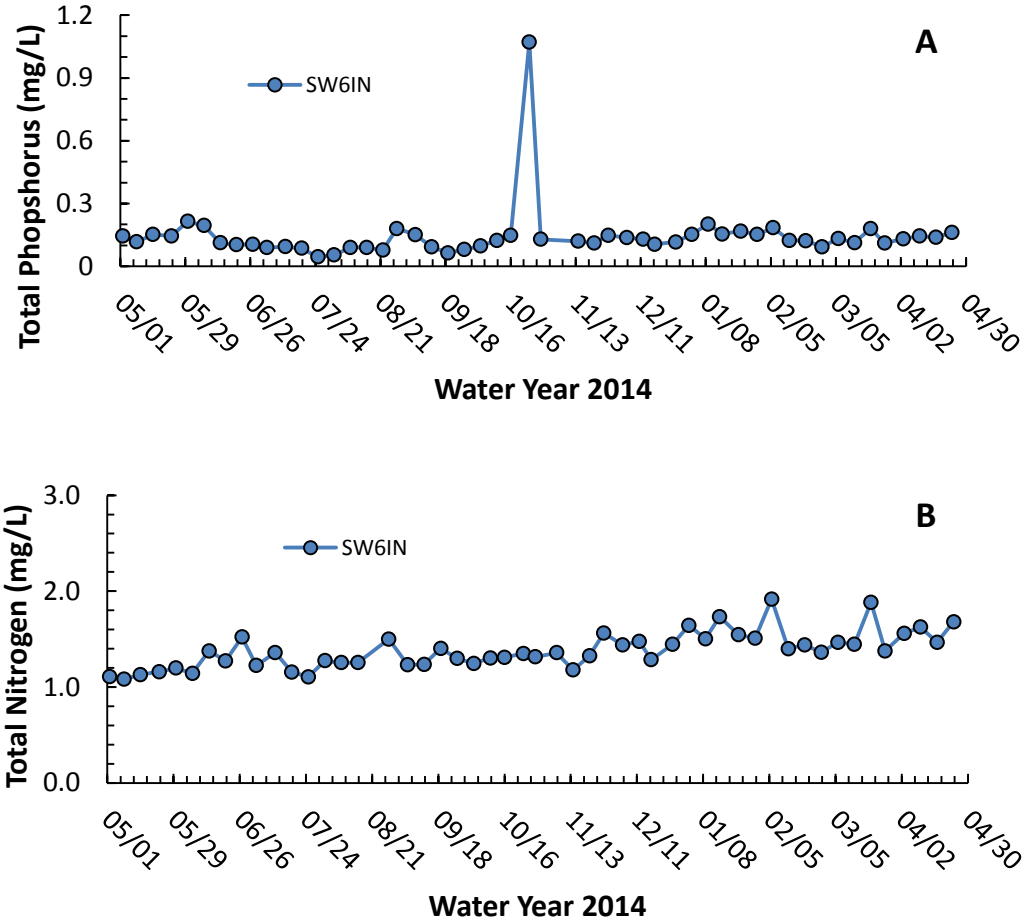

Figure 5. Time series plots of routine grab samples for (A) TP and (B) TN measured at SW6IN in WY2014.

Physical Parameters

Physical parameters measured at SW6IN were temperature, DO, pH, and specific conductance. The mixing zone boundaries at L8MZBN and L8MZBS recorded specific conductance and temperature with chlorides (calculated) using an in situ sonde, which collected readings every 15 minutes. As expected based on historical data, and shown in **Figure 6A** and **Table 5**, specific conductance was consistently higher at SW6IN than at the north and south mixing zone boundaries within the canal. The permitted mixing zone monitoring sites, L8MZBN and L8MZBS, were established in October 2007. These sites are located 800 meters north and south of the reservoir's discharge point (SW6IN) into the L-8 canal. The District conducts continuous automated 15-minute interval monitoring of specific conductance at the two mixing zone locations to aid internal operational decisions related to pumping and the maintenance of acceptable specific conductance levels in the canal. The District also conducts automated 60-minute interval monitoring of specific conductance at the outflow site SW6IN. Fluctuations of values above and below 1,275 µS/cm may occur during any 24-hour period; however, the permit requires a daily value to be reported. This daily value is based on a mean daily calculation from midnight to midnight (these data are available upon request).

As shown in **Figure 6** and **Table 5**, mean daily specific conductance was calculated at SW6IN, L8MZBN, and L8MZBS during WY2014. At the two mixing zone boundaries, L8MZBN and L8MZBS, the mean conductance values for WY2014 were 489 µS/cm and 924 µS/cm, respectively. An increase in specific conductance values (and subsequently the calculated chloride values) was observed at L8MZBN and L8MZBS at the end of April 2014. The District took immediate action through operations (flowing water north from S-5AS to Lake Okeechobee, increasing discharge at S-5AE and lowering S-5AE operation range to pull water from the L-8 Reservoir into the C-51 canal) to minimize any impact, and the conductivity and chloride levels quickly returned to normal, as shown in **Figure 6**.

Calculated chloride concentrations are presented in **Table 5** and **Figure 6B**. These daily chloride concentrations were calculated from daily average specific conductance values by using the following equation in the latest permit:

$$(\text{Predicted Chloride} = 0.0000455(\text{SpCond})^2 + 0.0845(\text{SpCond}) + 6.634).$$

Since chloride values are derived from specific conductance, the same scenarios explained above for specific conductance also apply to chlorides. There is no state Class III standard for chlorides. SW6IN exhibited the same increases as described for specific conductance. Daily specific conductance and calculated chloride data for the L-8 Reservoir Project are provided in Attachment B.

Based on the analyses and results presented in this report, the increase in specific conductance and chloride concentrations that occurred during WY2014 may be attributed to the dewatering associated with construction.

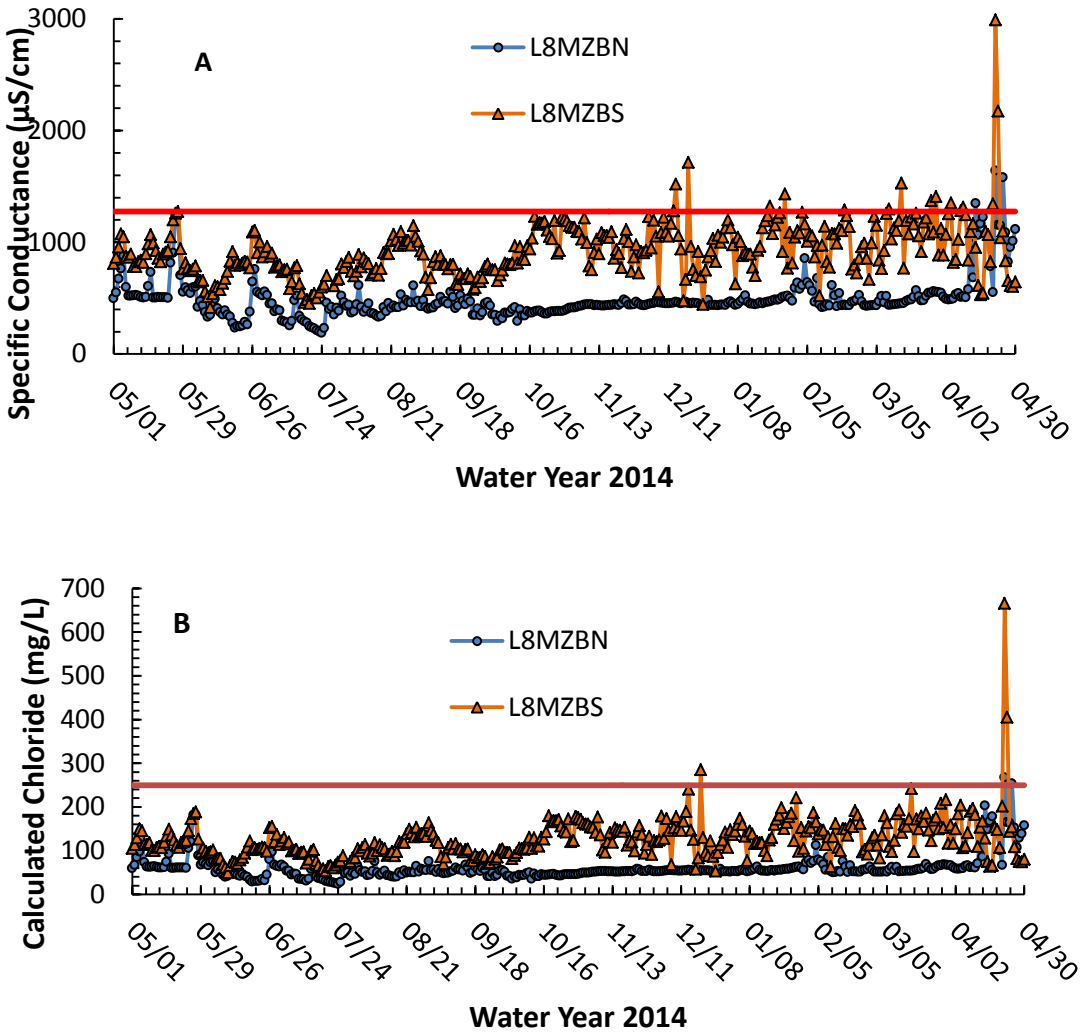

Figure 6. Time series plots for (A) daily mean specific conductance and (B) calculated chloride levels at the two mixing zone stations (L8MZBN and L8MZBS), during WY2014.

MERCURY MONITORING

All WY2014 fish collection for mercury analysis was suspended during construction, based on communication with the FDEP due to site access and safety concerns.

LITERATURE CITED

FDEP. 2013. Technical Support Document: Derivation of Dissolved Oxygen criteria to Protect Aquatic Life in Florida's Fresh and Marine Waters. DEP-SAS-001/13, Florida Department of Environmental Protection, Division of Environmental Assessment and Restoration, Tallahasee, FL. March 2013.

SFWMD. 2012. Restoration Strategies Regional Water Quality Plan. South Florida Water Management District, West Palm Beach, FL. April 27, 2012.

Attachment A: Specific Conditions and Cross-References

Table A-1. Specific conditions, actions taken, and cross-references presented in this report for the L-8 Reservoir Project (CERPRA permit 0188365-019).

Specific Condition	Description	Applicable Phase	Action Taken	Reported in 2015 SFER Vol. III, App. 2-2 in:			
				Narrative (page #s)	Figure	Table	Attachment
2	Public Safety	Construction	Followed according to permit requirements				
3	Threatened and Endangered Species	Construction	Followed in accordance with the Environmental Protection Plan (EPP) and permit requirements				
4	Authorized Construction	Construction	Followed according to permit requirements				
5	Blasting Activities	Construction	Followed according to permit requirements and as submitted in Blasting Action Plan				
6	Future Phases	Construction	No action needed				
7	Instructions to Contractors	Construction	Followed as required				
8	Construction Best Management Practices	Construction	BMPs were followed in accordance with the EPP and permit requirements				
9	Turbidity Monitoring	Construction	Turbidity readings were taken daily (by the contractor) and reported to FDEP quarterly.				
10	Water Use Permits	Construction	Followed as required				
11	NPDES Generic Permit for Stormwater Discharge from Large and Small Construction Activities	Construction	Followed as required				
12	NPDES Generic Permit for Discharge of Produced Groundwater from any Non-Contaminated Site Activity	Construction	Followed as required				
13	Water Quantity and Flooding Impacts	Construction	Discharges did not pose a serious danger to public health, safety, or welfare, and no flooding occurred.				
14	As-Built Certification and Record Drawings	Construction	Will be submitted upon completion of construction				
15	Project Operation Authorization	Operation	Permit application under review				
16	Operational Cycle Testing	Operation	Not applicable until construction is complete				
17	Operation Plan	Operation	Followed as required				

Specific Condition	Description	Applicable Phase	Action Taken	Reported in 2015 SFER Vol. III, App. 2-2 in:			
				Narrative (page #s)	Figure	Table	Attachment
18	Monitoring Requirements	Operation	Interior sampling at SW6OUT was discontinued in December 2012, when construction no longer allowed access to the station. The project's outflow pump was dismantled and removed in December 2012, followed by contractor installation of temporary discharge pumps for dewatering. Discharges continued to be routed through the L8RES culverts into the L-8 canal. By agreement between the FDEP and the District, sampling continued at SW6IN to monitor discharge water quality.	9, 10			B – C
19	Mercury Monitoring	Operation	Fish collection for mercury analysis was suspended during construction, based on communication with the FDEP due to site access and safety concerns.	2, 12, 15			
20	Daily Stage Monitoring	Operation	Monitoring was conducted as required				C
21	Mixing Zone Requirements (labeled as "22" in 0188365-020)	Operation	Requirements were met. A number of specific conductance exceedances at the site occurred and were reported to FDEP as required.	2, 14–15		5	B
22	Annual Water Quality Monitoring Requirements and Reporting	Operation	Monitoring and reporting were conducted as required	All	All	All	All
23	Quality Assurance and Quality Control	Operation	Sampling and analysis were performed according to permit requirements, Chapter 62-160, F.A.C., and the SFWMD's water quality monitoring plan				B
24	Method Detection Limits	Operation	Followed as required				B
25	Removal of Parameters	Operation	No parameters removed				
26	Addition of Parameters	Operation	No parameters added				
27	Emergency Suspension of Sampling	Operation	Not applicable				
28	Continued Monitoring Design and Development	Operation	Not applicable				
29	Permit Modifications	Operation	Permit modification 01888365-019 was issued on November 6, 2013, for construction of the new pump station and inflow spillway, and 01888365-020 was issued on June 28, 2013 for a 24-month extension of the current mixing zone.	6, 7			
30	Permit Renewal	Operation	Not applicable			1	
31	Department Review and Approval	Operation	Followed as required				

Attachment B: Water Quality Data

This project information is required by Specific Condition 11(a) of the L-8 Reservoir Project Permit – Operations Authorization (0188365), and is available upon request.

Attachment C: Hydrologic Data

This project information is required by Specific Condition 11(a) of the L-8 Reservoir Project Permit – Operations Authorization (0188365), and is available upon request.

Table C-1. Total Monthly Flow at Inflow and Outflow Points of the L-8 Reservoir Project for WY2014.

Month	Inflow (acre-feet)	Outflow (acre-feet)
May 2013	0	6,489
June 2013	0	7,481
July 2013	0	6,996
August 2013	0	8,264
September 2013	0	7,358
October 2013	0	8,401
November 2013	0	3,136
December 2013	0	1,329
January 2014	0	1,404
February 2014	0	1,351
March 2014	0	1,336
April 2014	0	1,596
Total	0	55,141