Operational Project Monitoring Plan

For

NICODEMUS SLOUGH WATER MANAGEMENT PROJECT

(NICO)

Effective Date Upon Final Signature

9/25/2024

X Kenneth Mullen

Kenneth Mullen
Field Project Manager
Signed by: Mullen, Kenneth

9/25/2024

X James Doak

James Doak
Science Supervisor
Signed by: Doak, James

9/30/2024

X Patricia M. Burke

Patricia Burke
Section Leader
Signed by: Burke, Patricia

9/25/2024

X Jennifer Avendano

WQM QA Scientist
Signed by: Avendano, Jennifer

Water Quality Monitoring Section
Water Quality Bureau, Water Resources Division
South Florida Water Management District

SFWMD-FIELD-OMP-085-05

Table of Contents

1.0 Project Organization

The following documents define the procedures used by South Florida Water Management District (SFWMD or District) Water Quality Monitoring Section (WQMS) personnel to meet the Florida Department of Environmental Protection's (FDEP or Department) Quality Assurance (QA) Rule, Florida Administrative Code (F.A.C.) 62-160, and should be referred to for details on key personnel and relevant responsibilities.

- Overall project organization and responsibilities -
  - SFWMD Water Quality Bureau (WQB) and Applied Sciences Bureau (ASB) Quality Management Plan (QMP).
- Field activity and data validation responsibilities -
  - SFWMD WQMS Quality Manual (QM), Field Sampling Manual (FSM), and applicable Standard Operating Procedures (SOP).
- Laboratory analysis and data validation responsibilities –
  - SFWMD Analytical Service's (AS) Chemistry Laboratory Quality Manual (CLQM) and applicable SOPs.

2.0 Project Description

2.1 Project Introduction and Background

This document serves as a reference for surface water quality monitoring for Nicodemus Slough Water Management Project (NICO). This operational monitoring plan (MP) contains descriptions of the mandate(s) justifying monitoring including frequency of collection and parameters by station.

The purpose of the Nicodemus Slough Water Management Project (NICO) is to provide water retention on the 15,906 acre site in the Northern Everglades and Estuaries Protection Area. Station S342N is a gated culvert and the main outfall structure for the Nicodemus Flowage Easement. S342N is the only water quality sampling station associated with this monitoring project.

This operational monitoring plan for project NICO contains detailed structure specifications including a brief description of surface water quality monitoring at structure S342N.

2.2 Sampling Mandate(s)

Station locations, sampling frequencies, and parameters are dictated by the mandate(s) governing this project (Appendix 1). There is no CMP(s) associated with this project.

2.3 Project Objectives

The primary objective of this monitoring project is to provide water quality data in order to assess discharges from the Nicodemus Slough Flow Easement project. Water is released from Lake Okeechobee through the CULV5 culvert structure and pumped into

Nicodemus Slough Flow Easement area when Lake Okeechobee levels require discharges to the estuaries in excess of the environmentally desirable salinity envelope.

The project will operate during periods when excess water in the Lake Okeechobee system is being discharged to the estuaries due to the lake's regulation schedule. The Nicodemus Slough Project will provide land to retain Lake Okeechobee water that would otherwise be sent to the Estuaries.

2.3.1 Modification or Termination Conditions

The monitoring described herein is time-limited and will be ongoing until December 2024 as required by the mandate(s) listed in Section 2.2 and Appendix 1.

3.0 Geographic Location

3.1 Regional Area

Project NICO is located within Glades County just south of the portion of the Herbert Hoover Dike along Fisheating Creek and west of County Road 78 (Figure 1).

3.2 Station Location and Access

Monitoring stations are depicted in Figure 1 with locations described in Table 1.

The roadway into Project NICO is located directly off SR 78 on the southwest side of Lake Okeechobee. The project has no gates or locks to access and structure S342N is on the west side of the dirt road entering Nicodemus Slough.

Table 1: NICO Surface Water Monitoring Stations and GPS Coordinates

Station	Latitude (ddmmss.sss)	Longitude (ddmmss.sss)	Description
S342N	265410.540	810822.350	Gated culvert under a farm road on the south end of Nicodemus Slough.

The standard positional goal for station coordinates is detailed in the Establishing & Verifying Water Quality Monitoring Station Registration SOP (SFWMD-FIELD-SOP-031). The coordinates are relative to NAD83 HARN horizontal datum.

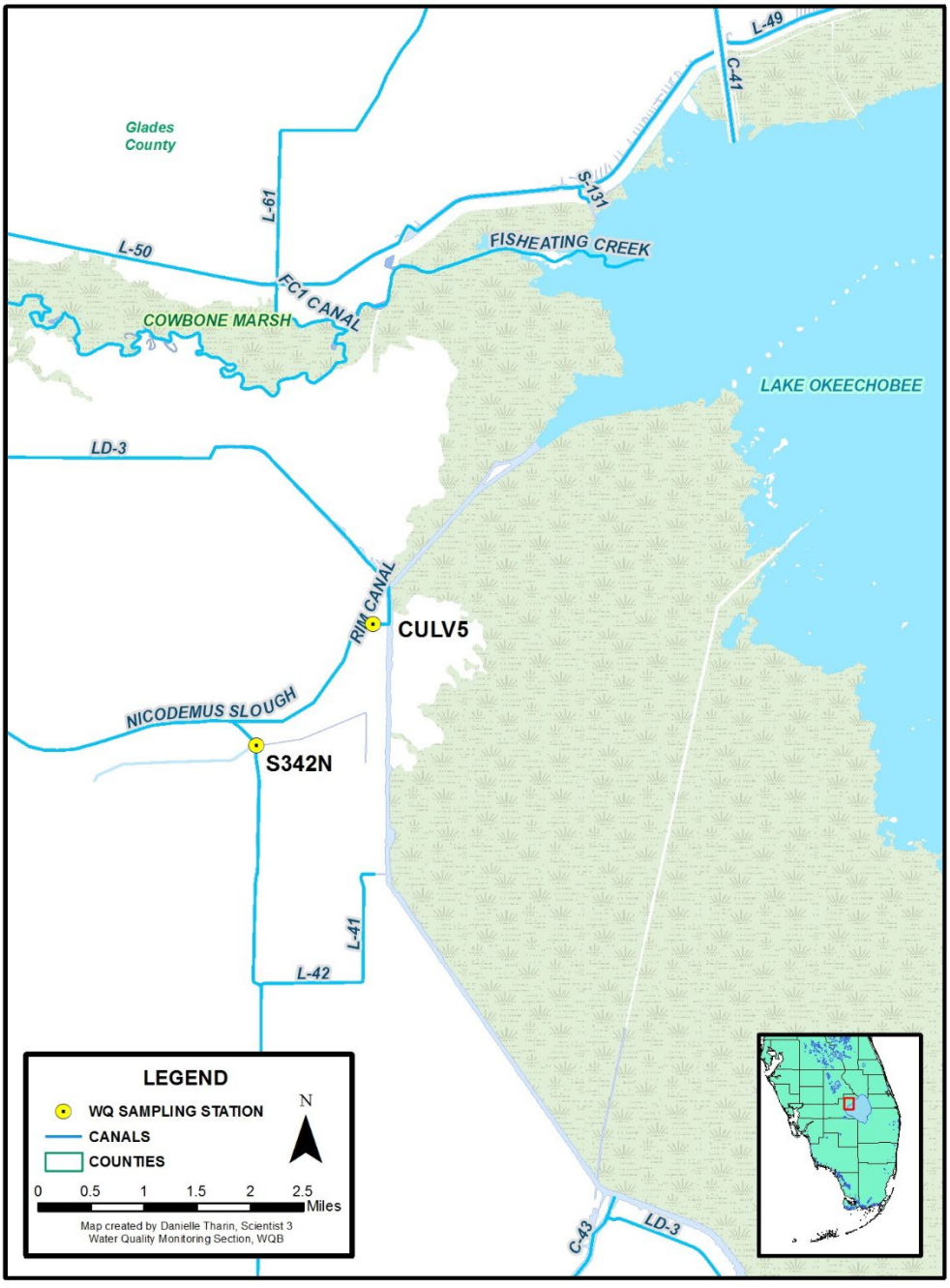

Figure 1: NICO Station Locations

4.0 Field Activities

4.1 Monitoring Frequencies and Parameters Collected

All monitoring parameters, frequencies of collection and locations are listed in Table 2. Some analytes may be reported by the lab that are not requested by the project.

Diversion Structures are only monitored if flowing, NOBs are not assigned during nonflow periods.

Table 2: NICO Station Frequency and Parameter TESTS

Station	Collection Method	Frequency	Parameter TESTS
S342N	Grab	Weekly (W)	Total Phosphorus (TP)

4.2 Project Specific Guidelines

Surface water grab samples are collected on the upstream side of the structure, at a depth of 0.5 meters, unless collection of a representative sample is inhibited by vegetation and/or other conditions, or if specific sampling depths are specified in the associated SOP or FSM for the sampling method. If an alternative sampling location is required, a consultation with a STS and/or the FPM must take place prior to the sampling being collected; this action must be documented in the field notes.

4.3 Grab Sampling Procedures

Sample collection for this project follows the procedures and requirements found in the *Grab Sampling Protocol* section of the WQMS FSM. Project-specific deviations are detailed in Section 4.2.

4.4 Field Parameters

There is no requirement for the collection of field parameters for this project.

4.5 Field Quality Control Requirements

Field quality control requirements shall follow the procedures found in the *Field Quality Control Measurements and Requirements* section of the WQMS FSM. Project-specific deviations are detailed in Section 4.2.

4.6 Autosampler Collection

There is no requirement for the use of autosamplers for this project.

4.7 Sample Submission

When the District laboratory is used, samples are transported to the laboratory and submitted for analyses in accordance with the requirements specified in the WQMS FSM.

Samples are submitted to the laboratory on the same day as collection or via courier the following day. Sample acceptance criteria are detailed in Section 6 of the CLQM. If samples are submitted to another laboratory it must meet the contract laboratory requirements as specified in Section 5.2 below.

5.0 Data Quality Objectives (DQOs)

5.1 Data Usage and Reporting

The data from this project are compiled and summarized in an annual report in accordance with the conditions outlined in the mandate referenced in Appendix 1.

5.2 Data Quality

All monitoring described herein meet the requirements conveyed in the FDEP's QA Rule, 62-160 F.A.C. The District has adopted a uniform set of DQOs following criteria detailed within the *Analytical Methods and Default QA/QC Targets* table of the CLQM.

Samples are analyzed according to the provisions within the FDEP QA Rule, 62-160 F.A.C. and the CLQM. The most recent version of the CLQM details DQOs at the time of sample collection for each specific laboratory analysis. Data are qualified in accordance with the FSM, CLQM and applicable data validation SOPs.

No contract laboratory is being used.

5.3 Completeness Target

The completeness target (i.e., the number of samples successfully collected and analyzed, as a percentage of those that were planned) has been set at 95% annually for this project. At times a sampling attempt will be made, but samples will not be able to be collected because of no flow or low water conditions, unsafe station conditions, equipment malfunction, vegetation or other site impacts that may affect the representativeness of a sample, tropical storms/hurricanes or other unforeseen problems that might affect sample collection and/or quality. If samples cannot be collected on an attempt, collectors shall document the sample as a "NOB" to indicate an attempt was made and/or the sample could not be collected for the documented reasons. Sampling attempts are included with successfully collected and analyzed samples in the completeness target.

6.0 Data and Records Management

The District evaluates data in accordance with the data quality objectives stated in the District's FSM and CLQM. All data submittals shall conform to existing District guidelines.

6.1 Contract Deliverables

There are no contract deliverables for this project.

6.2 Data and Record Storage

After the data validation process, all data and records are maintained so that end users

can retrieve and review information relative to a sampling event. Field records are maintained in accordance with the *Archive Records Storage and Retention* SOP (SFWMD-FIELD-SOP-022). All analytical data and specified metadata are sent to the DBHYDRO database for long-term storage and retrieval.

The District shall maintain master copies of field and laboratory generated records. It is the responsibility of the District to maintain both records of current and historical methodologies and operating procedures so that at any given time the conditions that were applied to a sampling event can be evaluated.

Field records storage protocols are outlined in the *Archive Records Storage and Retention* (SFWMD-FIELD-SOP-022). Corrections of field data, records or data in DBHYDRO must follow the WQMS *Correction of Field Records SOP* (SFWMD-FIELD-SOP-032) and the FSM.

7.0 References

FDEP (Florida Department of Environmental Protection). Quality Assurance Rule, 62-160 Florida Administrative Code (F.A.C.). April 16, 2018.

FDEP (Florida Department of Environmental Protection) Guidance for the Selection of Analytical Methods and the Evaluation of MDLs and PQLs List Referenced in Chapter 62-4.246(4), F.A.C. November 10, 2020.

SFWMD (South Florida Water Management District). *Archive Records Storage and Retention*, SFWMD-FIELD-SOP-022, Water Quality Monitoring Section

SFWMD. *Chemistry Laboratory Quality Manual (CLQM)*, SFWMD-LAB-QM-001, most current effective version. Analytical Services Section.

SFWMD. *Correction of Field Records*, SFWMD-FIELD-SOP-032, Water Quality Monitoring Section

SFWMD. *Field Sampling Manual (FSM)*, SFWMD-FIELD-FSM-001, Water Quality Monitoring Section.

SFWMD. *Field Quality Manual (QM)*, SFWMD-FIELD-QM-001, Water Quality Monitoring Section.

SFWMD. *Sampling Flow-Related Stations*, SFWMD-FIELD-SOP-027, Water Quality Monitoring Section.

SFWMD. *Station Registration*, SFWMD-FIELD-SOP-031, Water Quality Monitoring Section

SFWMD. *Water Quality and Applied Sciences Bureaus Quality Management Plan (QMP)*, SFWMD-QS-QM-001. Applied Sciences and Water Quality Bureaus.

8.0 Revisions and Modifications

Version	Date	Section	Notes
00	09/27/12	All	Monitoring plan created.
01	6/20/14	5.1 Table 2	Updated for TN change.
02	01/20/15	All	Plan updated to conform with new OMP template requirements.
03	07/22/19	All	Minor edits to OMP and location map updated.
04	05/26/21	All	Updated references to the new FSM and QA documents. Annual Review KM.
05	09/10/24	All	Annual Review and update of Mission driven collected parameters. KM

Appendix 1: Station Requirements by Mandate

Station	Mandate	Collection Method	Frequency	Parameters TESTS
S342N	Mission Driven	Grab	Weekly Recorded Flow (WRF)	Total Phosphrus (TP)