

Florida Water Resources Monitoring Council

Work Plan – 2018

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FLORIDA WATER RESOURCES MONITORING COUNCIL

Members

Jill Fleiger (Jillian.Flieger@freshfromflorida.com)

Florida Dept. of Agriculture and Consumer Services

David Polk (David.Polk@flhealth.gov)

Florida Dept. of Health

Amber Whittle (amber.whittle@myfwc.com)

Florida Fish and Wildlife Conservation Commission

Jay Silvanima

Florida Dept. of Environmental Protection

Simona Platukyte (Platukyte.Simona@epa.gov)

U.S. Environmental Protection Agency

Christopher Sinigalliano
(christopher.sinigalliano@noaa.gov)

National Oceanic and Atmospheric Administration

Scott McBride (wmcbride@usgs.gov)

U.S. Geological Survey

Edward Chelette (Edward.Chelette@nwfwmd.state.fl.us)

Northwest Florida Water Management District

Darlene Velez (Darlene.Velez@srwmd.org)

Suwannee River Water Management District

Christine Mundy (cmundy@sjrwmd.com)

St. Johns River Water Management District

Sandie Will (sandie.will@swfwmd.state.fl.us)

Southwest Florida Water Management District

Linda Crean (lcrean@sfwmd.gov)

South Florida Water Management District

Chips Kirschenfeld (jtkirsche@co.escambia.fl.us)

FLERA Northwest Region

Gus Olmos (Gus@alachuacounty.us)

FLERA Suwannee River Region

Randall Sleister (rsleister@volusia.org)

FLERA St. Johns River Region

Rob Brown (rob.brown@mymanatee.org)

FLERA Southwest Region

Lisa Spadafina (lspadal@miamidade.gov)

FLERA South Region

Mark Hoyer (mvhoyer@ufl.edu)

Volunteer Monitoring Programs

Sean McGlynn (mcglynnlabs@gmail.com)

Florida Lake Management Society

Patrick Welsh (pat.welsh@me.com)

Florida COOS Consortium

Member Alternates

Kal Knickerbocker (Kal.Knickerbocker@freshfromflorida.com)	<i>Pending</i>
Florida Dept. of Agriculture and Consumer Services	FLERA Northwest Region
Bob Vincent (robert.vincent@doh.com)	Jim Hatchitt (jhatchitt@alachuacounty.us)
Florida Dept. of Health	FLERA Suwannee River Region
Siobhan Gorham (Siobhan.Gorham@myfwc.com)	<i>Pending</i>
Florida Fish and Wildlife Conservation Commission	FLERA St. Johns River Region
Rick Copeland (Rick.Copeland@dep.state.fl.us)	Kelli Levy Hammer (klevy@co.pinellas.fl.us)
Florida Dept. of Environmental Protection	FLERA Southwest Region
Christopher McArthur (mcarthur.christopher@epa.gov)	Rob Robbins (rrobbins@co.palm-beach.fl.us)
U.S. Environmental Protection Agency	FLERA South Region
<i>Pending</i>	<i>Pending</i>
National Oceanic and Atmospheric Administration	Volunteer Monitoring Programs
David Sumner (dmsumner@usgs.gov)	<i>Pending</i>
U.S. Geological Survey	Florida Lake Management Society
Tony Countryman (Tony.Countryman@nfwfwd.state.fl.us)	<i>Pending</i>
Northwest Florida Water Management District	Florida COOS Consortium
Mark Hinz (Mark.Hinz@srwmd.org)	
Suwannee River Water Management District	
Margaret Guyette (mguyette@sjrwmd.com)	
St. Johns River Water Management District	
Granville Kinsman (Granville.Kinsman@watermatters.org)	
Southwest Florida Water Management District	
Julianne LaRock (jlarock@sfwmd.gov)	
South Florida Water Management District	

Carolyn Voyles, *Staff Liaison*

Florida Dept. of Environmental Protection

Dan Dourte, *Chair; consultant*

The Balmoral Group

Mission

To protect, preserve, manage and restore Florida’s water resources by coordinating water resource monitoring among all levels of government, improving data quality and effectiveness, and sharing information widely.

Introduction

This Florida Water Resources Monitoring Council 2018 Work Plan lays out a strategy for coordinating existing monitoring programs to create a statewide integrated water-resource monitoring system and to provide guidance for incorporating new programs. The outcomes and tasks identified were developed with the understanding that work on Council priorities should align with existing Council member responsibilities in their home agencies. The general outcomes of the action items in the work plan are training opportunities and learning resources that are aimed at improving the coordination and data collection/analysis among water quality data providers. Ongoing, Short-Term, and Medium-Term Action Items have been identified; these are listed below and described with associated tasks in the “Action Items” section.

Ongoing Action Items

1. Provide oversight and guidance to Council workgroups
2. Maintain Water-CAT
3. Produce Salinity Network monitoring products
4. Coordinate Watershed Information Network (WIN) training

Short-Term Action Items

1. Build a stronger presence on the web
2. Identify and document duplication and gaps in water quality monitoring

Medium-Term Action Items

1. Coordinate best practices for large data
2. Improve the flow/hydrology and water quality connection
3. Support development and implementation of new, emerging, and enhanced technologies, indicators, and methods to improve monitoring

Background

The Florida Water Resources Monitoring Council (Council) is a coordinating body of multiple stakeholder organizations from many disciplines that participate in water resource monitoring and management. Water

resources consist of surface waters and groundwater, and include both marine and fresh water. The Council members represent federal, state and local agencies and organizations who collect, manage, compile and disseminate information about hydrological, chemical, physical and biological properties associated with Florida's waters. The current Council (restarted in 2011) has been broadened to inform, plan and ultimately coordinate Florida water resources monitoring efforts at the state, local, and federal levels. Council authority for statewide coordination and cooperation are described in Chapter 373.026(3), Florida Statutes.

The mission of the Council is to coordinate and share information for efficient, effective monitoring and management of Florida water resources. The Council membership, with support from their organizations, develops and supports projects first proposed in the 2008 action plan. The 2008 plan included specific projects to develop a monitoring catalog, coordinate monitoring efforts at all levels of government and among other entities, and integrate freshwater and coastal networks. The Council further provides input to develop and implement the Watershed Information Network (WIN), which is the Florida STORET replacement data repository.

The Council develops its projects and statewide structure with the expertise of its members, partners, and workgroups. New challenges and opportunities have arisen since the Council first convened, and are being addressed by focusing on newly identified topics and challenges. The Council leverages efforts with concurrent and convergent projects of its members and partners, thereby conserving fiscal and human resources. The ultimate outcome is to improve the quality and efficiency of monitoring activities in Florida. This ensures that water resource managers are informed with the best scientific data available to make comprehensive decisions regarding the protection and preservation of Florida's water resources in the 21st century.

This Work Plan for 2018 lays out the Ongoing, Short-Term, and Medium-Term Action Items and the tasks the Council plans to complete over the next year few years to achieve the Council mission.

Action Items

Ongoing Action Items

1. Action Item O - 1: Provide oversight and guidance to Council workgroups
 - A. Timeframe
 - Ongoing
 - B. Outcome(s)
 - Workgroups are efficient and goals for each group are met in a timely manner
 - C. Tasks

TASK 1: Determine whether existing workgroups are still needed and whether additional workgroups need to be formed

TASK 2: Hold quarterly workgroup update meetings (teleconference/webinar)

TASK 3: Provide guidance to workgroups to help keep on task and reach goals

Action Item O - 2: Maintain Water-CAT

A. Timeframe

Ongoing

B. Outcome(s)

- A well-maintained tool that continues to provide valuable environmental monitoring information to stakeholders across Florida

C. Tasks

TASK 1: Manage Water-CAT contract via existing Workgroup process

TASK 2: Manage contractors to establish metadata requirements, coordinated with WIN metadata requirements to minimize maintenance efforts of Water-CAT database. Hopefully allow for metadata gaps in Water-CAT to be filled by querying WIN.

TASK 3: Council Members/ Representatives from members' agency provide updates of changes to their monitoring network to Water-CAT contractors.

TASK 4: Establish a long-term Water-CAT maintenance plan for when contract period ends.

Action Item O - 3: Produce Salinity Network monitoring products

D. Timeframe

Ongoing

E. Outcome(s)

- Data visualizations to understand current and historical groundwater levels and groundwater salinity: Groundwater Percentile Ranking Index (GWPRI) and Coastal Salinity Monitoring data

F. Tasks

TASK 1: Register groundwater monitoring locations and Representative Monthly Value data types in WIN

- TASK 3: Establish regular data provision plans for Water Management Districts and other groundwater data providers for uploading data through WIN
- TASK 3: Develop the data management protocol for retrieval of groundwater data from WIN and processing to develop maps
- TASK 4: Develop the data management protocols for retrieving and analyzing Coastal Salinity Monitoring Network data

Action Item O - 4: Coordinate Watershed Information Network (WIN) training

A. Timeframe

Early 2018, complete in 2018

B. Outcome(s)

- Well-informed stakeholders for WIN uploading processes
- Larger number of active data providers
- Compatibility with future monitoring network growth

C. Tasks

- TASK 1: Conduct a statewide evaluation of the IT/data management capabilities of 1) WIN data provider organizations and 2) potential WIN data provider organizations (to ensure future growth to the monitoring network).
- TASK 2: Identify barriers to WIN participation and propose efficient solutions.
- TASK 3: Advocate the development of efficient approaches to adapt existing data provider IT/data management to WIN. Utilities analogous to FL STORET Interface Module (SIM) program should be considered.
- TASK 4: Promote/host regional training events on WIN. Curricula should be broad-based and include training on weaknesses in organizational IT/data management capabilities identified by Tasks 1 and 2.
- TASK 5: Advocate for a robust WIN technical support function able to resolve complex issues of data interchange and configuration, which may not be available from small-medium data providers.

Short-Term Action Items

Action Item S - 1: Identify and document duplication and gaps in water quality monitoring

A. Timeframe

Complete in 2018

B. Outcome(s)

- Report based on the Water-CAT identifying duplications and gaps in monitoring activities
- Better coordination of monitoring efforts to maximize efficiency and better use of limited resources

C. Tasks

TASK 1: Identify group or individual to lead analytical and report writing efforts.

TASK 2: Analyze Water-CAT to identify duplications, overlap, or gaps in data gathering

TASK 3: Identify the *required* data for monitoring and management and identify what data are sometimes collected but not utilized for management or compliance purposes

TASK 4: Prepare a report summarizing findings for Tasks 2 and 3

TASK 5: Disseminate/share the report to help improve coordination of freshwater and coastal resource monitoring.

TASK 6: Coordinate with Water-CAT workgroup to see if there is a way to run a query on the database to auto-populate an annual report of duplicative efforts.

Action Item S - 2: Build a stronger presence on the web

A. Timeframe

Complete in 2018

B. Outcome(s)

- Better online resources for stakeholders
- Improve visibility of Council achievements and goals

C. Tasks

TASK 1: Regularly post content (work products, meeting dates, meeting outcomes, workgroup progress) to existing website <https://floridadep.gov/dear/watershed-monitoring-section/content/fwrmc>

TASK 2: Brainstorm Council achievements that should be highlighted on website; ensure that all Council deliverables that have been posted/hosted on other websites are linked to Council website

TASK 3: Advertise/ Disseminate Council website to stakeholders who may not know that this resource is available

Medium-Term Action Items

Action Item M - 1: Support development and implementation of new, emerging, technologies, indicators, and data access and analysis methods to improve monitoring

A. Timeframe

2018 – 2019 (or beyond)

B. Outcome(s)

- A quarterly workgroup that focuses on new, emerging, and enhanced technologies, indicators, and methods to improve monitoring
- Report on new and emerging technologies

C. Tasks

TASK 1: Create a workgroup to research and evaluate new, emerging, and enhanced technologies – start with the past membership of the Continuous Monitoring workgroup

TASK 2: Compile a report summarizing findings with Pros/Cons and cost-benefit analysis of new technology compared to previously used technology

TASK 3: Once a year, hold a special workshop in conjunction with Council meeting to highlight the top emerging technologies for that year

Action Item M - 2: Improve the flow/hydrology and water quality connection

A. Timeframe

2019 (or beyond)

B. Outcome(s)

- Strengthen the knowledge of relationship between quantity and quality of water.
- Coordinate monitoring efforts of quantity and quality data for future analysis

- Create summary report of current quantity and quality knowledge and identify gaps in knowledge that need to be filled

C. Tasks

TASK 1: Identify individual or group to lead efforts

TASK 2: Mine previously collected quantity and quality data and analyze to determine if any areas currently have enough data available for assessment and identify gaps in data that are needed to be able to do an assessment in that area.

TASK 3: Work with WIN and Water-CAT to include quantity data and metadata to make available to other stakeholders.

TASK 4: Analyze data from areas that have sufficient quantity and quality data and write a summary report of current knowledge.

Action Item M - 3: Coordinate best practices for large data

A. Timeframe

2019 (or beyond)

B. Outcome(s)

- Improve data sharing of large data sets with stakeholders

C. Tasks

TASK 1: Review Continuous Monitoring Workgroup resources

TASK 2: Create workgroup of people interested in visualization/access/analysis of large datasets

TASK 2: Identify currently available resources (Hydstra, Aquarius, USGS data portal) for handling large sets of data to determine which may be best for handling a statewide large data set database.

TASK 3: Work with WIN to integrate a large data database that would be associated with current WIN database.