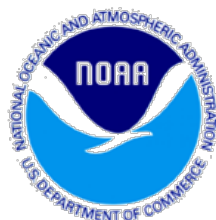


Florida Water Resources Monitoring Council



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.

24 August, 2018: Water Council Meeting

Meeting Objectives

- Make progress on action items in the annual work plan
- Make any necessary revisions / updates to current work plan

Agenda

- Welcome and Introductions (Dan Dourte; The Balmoral Group)
- Status of work plan; evolving structure/operation of Council; survey results (Dan Dourte)
- Review of short-term action items in work plan
 - Stronger web presence; visibility and accessibility (Carolyn Voyles)
 - Identify and document duplication and gaps in water quality monitoring
 - What we want to identify (Dan Dourte)
 - What we currently know from Water-CAT (Jan Allyn; USF)... Usage Data; coordination with GOMA, Terra-CAT, CMAP, others?
 - What's the most important information to learn in Water-CAT?
 - Is this important to the Council? If so, how do we get there from here (information needs and action items/leaders)
 - Work plan revisions: what should change?
- Review mid-term action items (Dan Dourte)
 - Coordinate best practices for large data
 - Improve the flow/hydrology and water quality connection
 - Support development and implementation of new, emerging, and enhanced technologies, indicators, and methods to improve monitoring
- **Work plan revisions – how to focus our efforts on learning from each other**
- Review ongoing action items
 - Watershed Information Network (WIN) implementation status (Denise Miller)
 - Water-CAT maintenance and updates; goals for next year and beyond (Denise Miller)
 - Salinity Network products (Rick Copeland)
- Action Items and Summary (Dan Dourte)

Council Work Plan

Why we have it? What we can do to make it work?

Work Plan

Timeline

- Spring 2017: phone interviews to collect input on Council priorities
- August 2017: meeting to discuss/develop Council work plan
- September – November 2017: work plan workgroup convenes to draft 2018 Water Council Work Plan
- January 2018: work plan approved
- Status: reworking the plan to make it useful, to make it match what we need from the Council

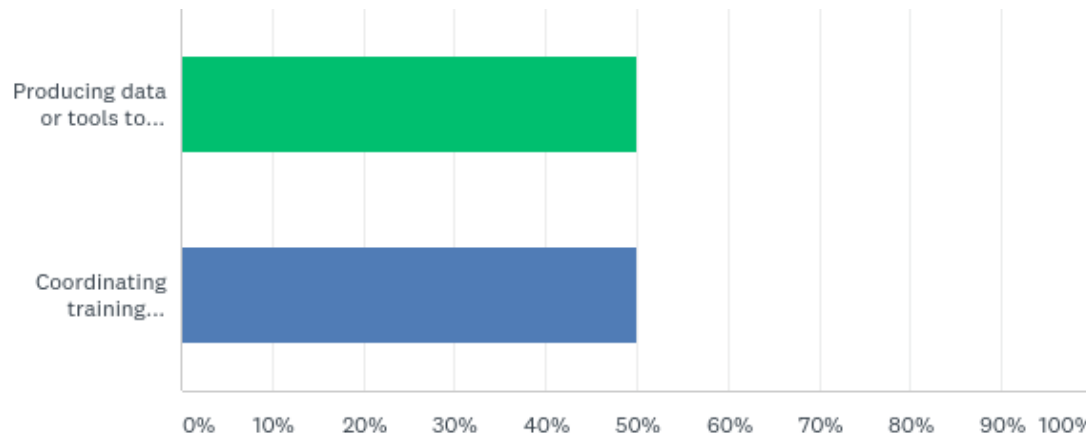
Work Plan (2)

What should the Council work on?... From the minds of the Council:

Q1: What is the most important work to be done by the Florida Water Resources Monitoring Council

- Answered: 14 Skipped: 2

Powered by  SurveyMonkey



ANSWER CHOICES	RESPONSES	
Producing data or tools to provide information on water resource data (Water-CAT, Salinity Network products, etc.)	50.00%	7
Coordinating training activities to facilitate learning across agencies (webinars, workshops, etc.)	50.00%	7
TOTAL		14

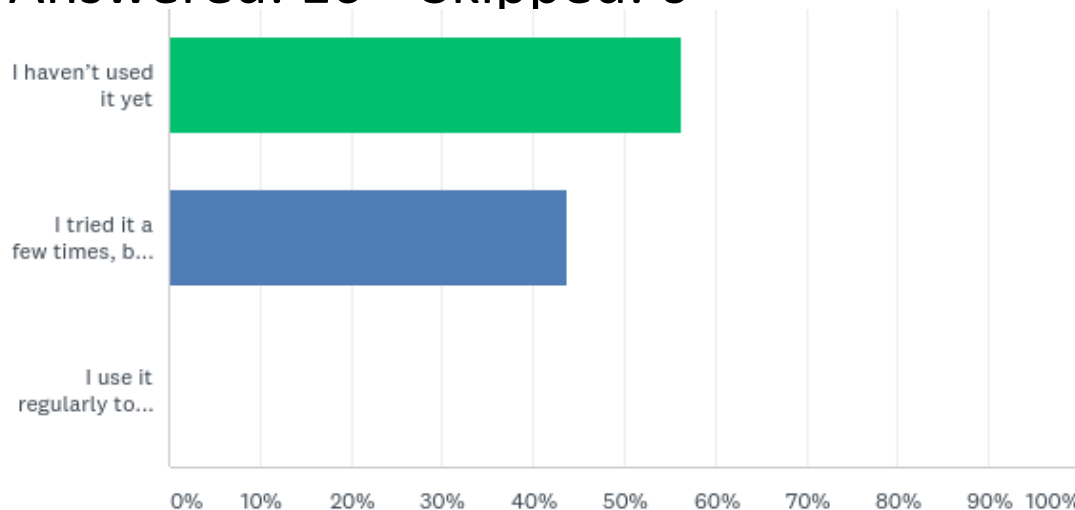
Work Plan (3)

What should the Council work on?... From the minds of the Council:

Q2: How often have you used Water-CAT?

- Answered: 16 Skipped: 0

Powered by  SurveyMonkey



ANSWER CHOICES	RESPONSES	
I haven't used it yet	56.25%	9
I tried it a few times, but don't use it regularly	43.75%	7
I use it regularly to see who/where water quality monitoring is happening	0.00%	0
TOTAL		16

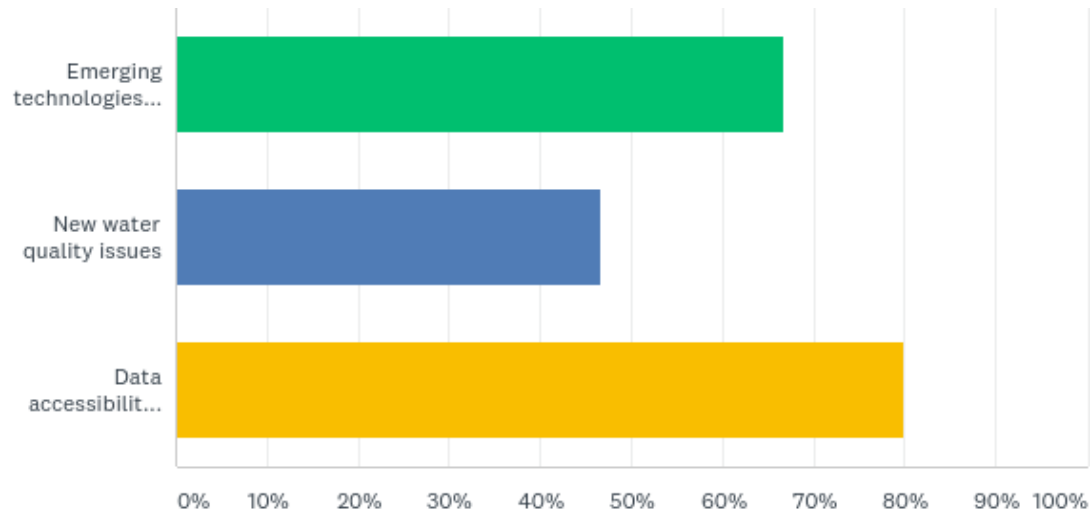
Work Plan (4)

What should the Council work on?... From the minds of the Council:

Q3: If the Water Council initiated/coordinated some regular training opportunities, what would you like to learn about?

- Answered: 15 Skipped: 1

Powered by  SurveyMonkey



ANSWER CHOICES	RESPONSES	
Emerging technologies (new equipment, data sources, data management tools)	66.67%	10
New water quality issues	46.67%	7
Data accessibility, visualization, analysis, data gaps, etc.	80.00%	12
Total Respondents: 15		

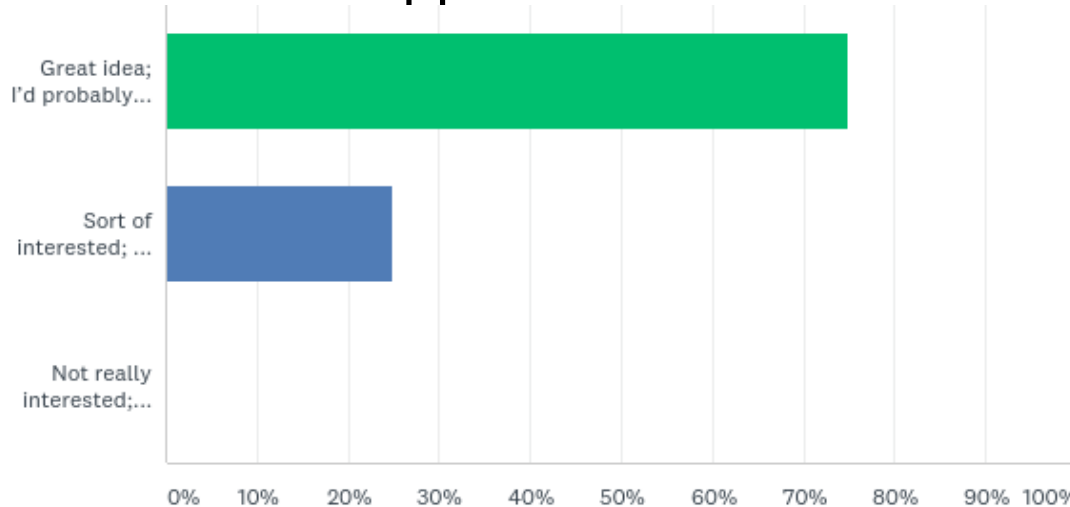
Work Plan (5)

What should the Council work on?... From the minds of the Council:

Q4: What's your level of interest in training efforts coordinated by the Water Council?

- Answered: 16 Skipped: 0

Powered by  SurveyMonkey



ANSWER CHOICES	RESPONSES	
Great idea; I'd probably participate	75.00%	12
Sort of interested; I probably wouldn't participate that often	25.00%	4
Not really interested; Water Council should focus on other efforts (with open form box to explain)	0.00%	0
TOTAL		16

Work Plan: short-term items

“Build a stronger presence on the web”

Progress...

Success Stories:

The FWRMC (Council) promotes information sharing among stakeholders that participate in monitoring efforts and management for marine waters, fresh surface waters, and groundwater in

Florida. Council

members include members

of state, local and federal

organizations. By fostering

communication,

cooperation and

collaboration, the Council is

SUCCESS STORY: Coordination on Building Working Groups for Monitoring

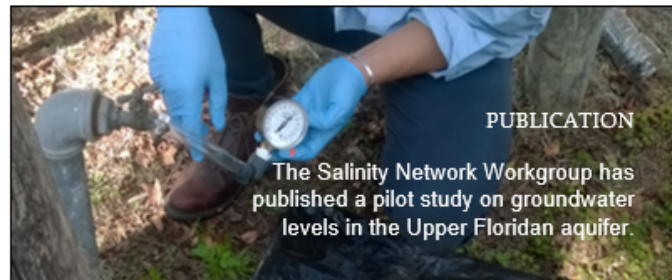
One outcome of Council efforts has been the organization of the Southwest Regional Ambient Monitoring Program (SW RAMP), which now operates independently to achieve data coordination across several southwest Florida counties. Recently, the SW RAMP helped launch a similar group in the Northeast (NE RAMP). After the NE RAMP kickoff, one participant said:

“... I had the privilege of attending the kickoff for the Regional Ambient Monitoring Program this week for the NE Florida region because I know many of you have worked hard to launch regional programs throughout the state through the [Florida Water Resources Monitoring Council]. The hard work and dedication is showing!”

As a response, the Council approved formation of the Salinity Network Workgroup (SNW). The Salinity Monitoring Network covers the entire state. The goals of the SNW are:

(1) to provide scientifically defensible data and information on the chemical, physical and biological characteristics of water that can be used by the state’s water policy-makers, the scientific community and the public, and

(2) to better understand the status and trends regarding the encroachment of saline water into Florida’s freshwater resources. The SNW coordinates the efforts of its member organizations, which include the department, the water management districts, the U.S.



PUBLICATION

The Salinity Network Workgroup has published a pilot study on groundwater levels in the Upper Floridan aquifer.

Work Plan: short-term items (2)

“Identify and document duplication and gaps in water quality monitoring”

Idea: use Water-CAT to do this



Water-CAT

History, accomplishments, challenges, solutions

Water-CAT

Catalog of Florida Monitoring Programs Current Status / Future Plans

FWRMC Meeting, USGS, Gainesville

*Jan Allyn, USF Water Institute
August 24, 2018*

Brief history

- Project initiated in 2013
- Beta website completed in 2014
- Population of website began in 2014 with station metadata from Florida STORET, Water Atlas partners, USGS, WMDs
- USF has worked since then to:
 - Provide admin capability for metadata providers
 - Complete project metadata
 - Assign stations to projects
 - Add new organizations/projects/stations

Accomplishments



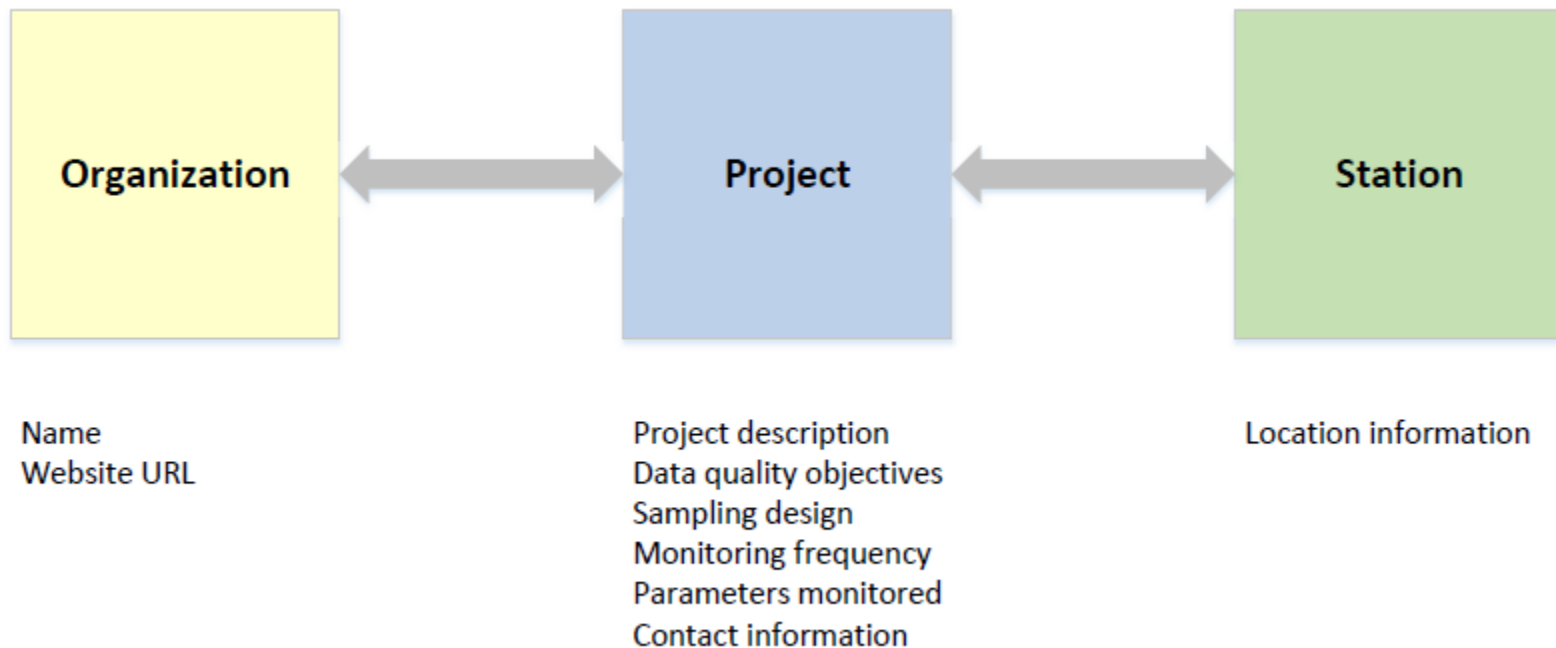
- We have completed project metadata for
 - Counties, cities, utilities, etc., that submit to STORET
 - 3 out of 5 Water Management Districts – SWFWMD, NFWMD, and SRWMD
 - USGS continuous monitoring networks
 - We have added many nonprofit, academic, volunteer organizations, state and federal agencies
 - Water-CAT admin system is available for use by metadata providers.
-
- Email notification tool has been developed to periodically contact metadata providers for updates.
 - Crosswalk for STORET-WIN fields has been developed, to facilitate future updates.

Accomplishments, continued

- Terra-CAT developed as a related website: Species and Habitat Monitoring
 - Funded by Florida Fish and Wildlife Conservation Commission & USFWS State Wildlife Grant
 - Developed in 2017 and currently being populated
 - Terra-CAT and Water-CAT databases have been synchronized
- GOMA-CAT funded by Gulf of Mexico Alliance to expand Water-CAT/Terra-CAT westward (Alabama is first)
- Coordination of metadata collection/management to minimize duplication of effort on the part of data providers:
 - Water-CAT/Terra-CAT/GOMA-CAT
 - SEACAR project (FDEP)
 - RESTORE Council Monitoring and Assessment Program (CMAP)

Why project metadata is important

Project information was identified as a critical linkage based on schema designed by the FWRMC Catalog Working Group

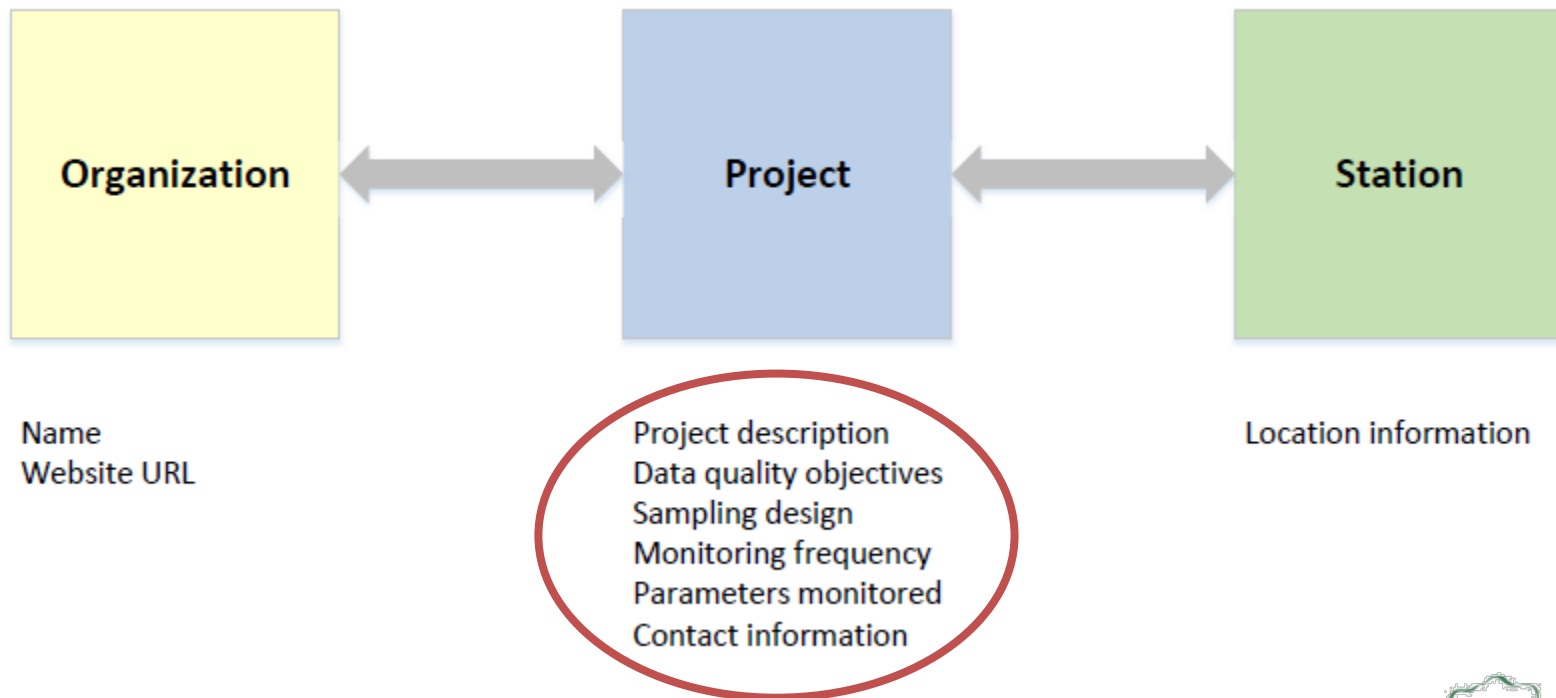


Challenges

- Complete project metadata are lacking for many organizations
 - To date, STORET contributes ~90% of organizations to Water-CAT, and its project metadata relative to Water-CAT are incomplete
 - Project submissions to WIN so far still lack meaningful project descriptions relative to Water-CAT objectives
 - Metadata providers are too busy to provide supplemental info
- Some organizations lack meaningful project-station connections
 - STORET does not contain project-station associations
 - A station may be associated with more than one project
 - Sampling by one organization (e.g., by a FDEP District) may be used by multiple statewide initiatives and/or relevant to more than one project
 - A project may have differing stations (and analytes) over time
 - Metadata providers are too busy to provide supplemental info

Solution 1

Project information was identified as a critical linkage based on schema designed by the FWRMC Catalog Working Group



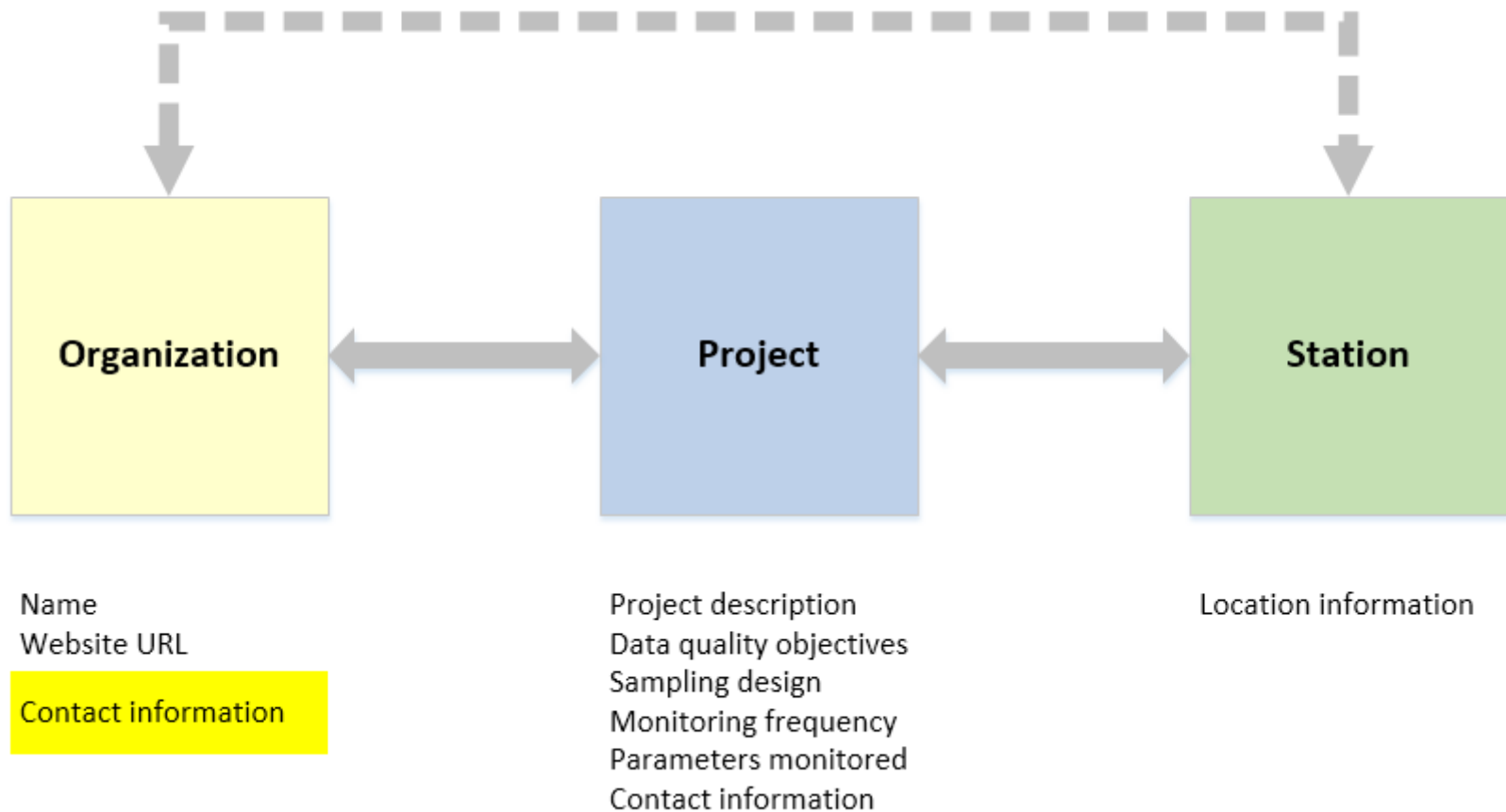
Solution #1

- When submitting directly to Water-CAT or to WIN*, provide a good project description that includes, as a minimum:
 - Purpose of monitoring – question being answered, regulatory requirement being fulfilled (NPDES, TMDL, BMAP, etc.)
 - Frequency of monitoring
 - Whether stations are fixed or random
 - Generally what you are monitoring for (nutrients, metals, salinity, flow, biological habitat, etc.)
 - Project contact information
- USF and FDEP can use WIN result data to automatically make Organization-Project-Station linkages

*Project information can be updated in WIN if it changes over time



Solution #2



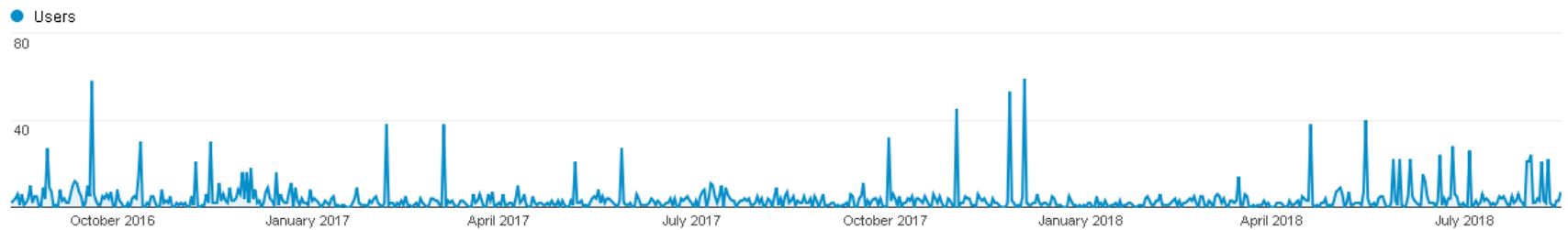
Solution #2 (continued)

- Maintain contact information, at the organization level, at least once/year, when submitting metadata directly to Water-CAT or to WIN
- This enables Water-CAT users to go directly to the source to understand changes that may have occurred with monitoring for a project or station, if the project information is not complete or has not been updated
- This is not ideal for Water-CAT site project documentation, but it is useful for data users

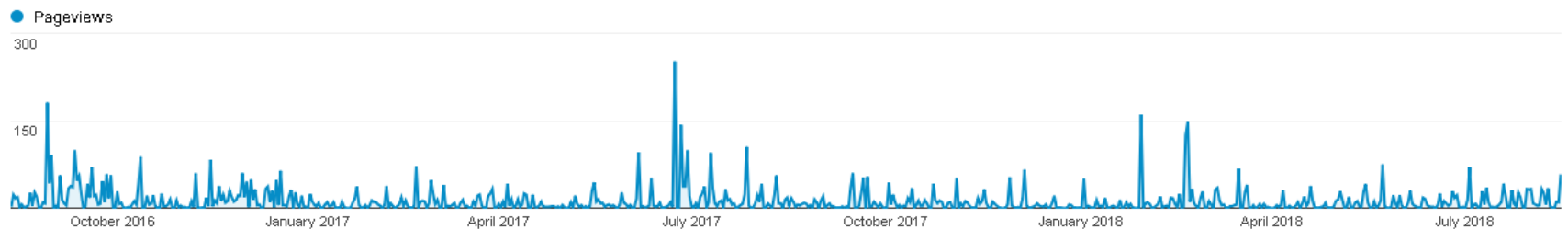
Challenges (2)

- Too few resource managers know about Water-CAT and use it

Users

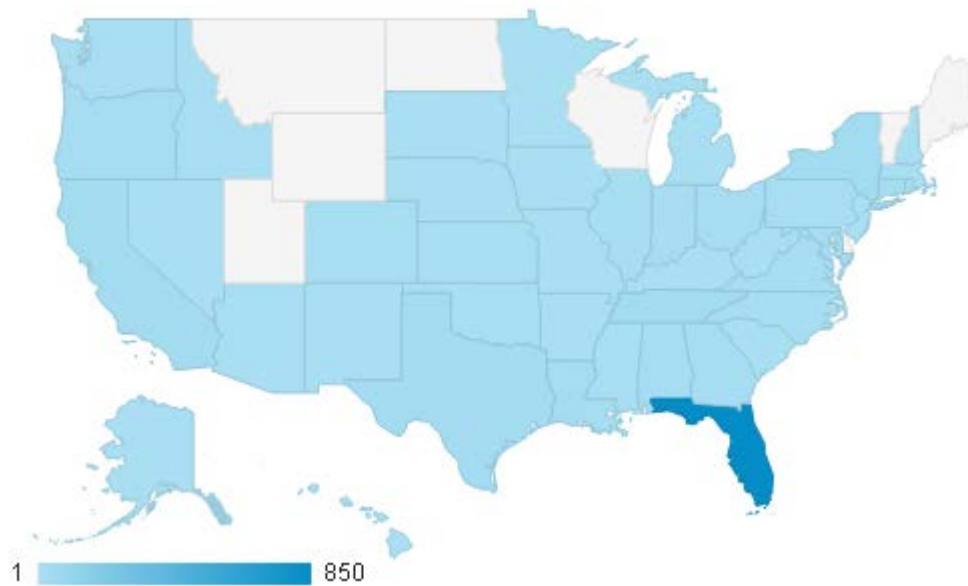


Pageviews



Challenges (3)

Users



Users by Florida City

City	Users
(not set)	275
Tallahassee	227
Tampa	68
Gainesville	39
Stuart	39
Orlando	37
St. Petersburg	37
Palatka	24
Niceville	18
Boardman	17

August 2016-August 2018

Solution

Domains	Links	Linked pages
usf.edu	6,711	6
water-cat.org	309	3
flms.net	79	1
floridadep.gov	4	1
eco-voice.org	3	1
wordpress.com	3	1
gcfi.org	2	1
acwi.gov	1	1
constantcontact.com	1	1
dep.state.fl.us	1	1
gomri.org	1	1
gulfofmexicoalliance.org	1	1
gulfresearchinitiative.org	1	1
myflorida.com	1	1

FWRMC members – and other metadata providers – can spread the word about Water-CAT through links on their websites, in email signature blocks, and by word of mouth to colleagues

Jan Allyn (janallyn@usf.edu)

Content Manager, [USF Water Institute](#)

4202 East Fowler Ave., NES107, Tampa, FL 33620

Phone: (813) 974-0309 Cell: (727) 244-0312



Questions?



Review mid-term action items

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

Work Plan

How to make it work?

Review ongoing action items

- Watershed Information Network (WIN) implementation status (Denise Miller)
- Water-CAT maintenance and updates; goals for next year and beyond (Denise Miller)
- Salinity Network products (Rick Copeland)

SalNet

Salinity Network Workgroup

Salinity Network Status (August 2018)

- A. Coastal Salinity Monitoring Network
 - Up and Running
- B. GWL PRI
 - Agreement on one methodology
 - Waiting for data to be transferred to WIN
- C. Revisions(?) to GW Samp. SOPs
 - Only for specific sampling situations
- D. Dev. of Salinity GW Qual. Index
- E. Dev. of a FL. Estuarine Mon. Net.?
- F. New SNW Chair after November