The EPA Beaches conference call with GCOOS Public Health and Safety Task Team
and GCOOS Staff

January 23, 2017

The GCOOS-RA is re-engaging the Public Health and Safety Task Team with a priority task of improving and enhancing existing beach conditions and water quality monitoring products on the GCOOS products page.

The Products and Services Advisory Council met in November to identify potential new GCOOS products and provide input to improve existing products. A top priority of the Council was to improve access to beach and water quality monitoring information.

Bill Kramer from EPA Beaches is the administrator of the EPA BEACON site (Beach Advisory and Closing Online Notification). Bill provided a tour of EPA beaches online tools. Can any of the data, information, processes, or tools be used by GCOOS to develop a meaningful tool for access to water quality information for Gulf of Mexico beaches (primary target user general public or "beachgoers")?

Participants
Bill Kramer, EPA Beaches, Joel Hansel EPA Region 4

GCOOS Public Health and Safety Task Team/ Staff

Barb, Carol, Kate, Andy, Shin, Marion, Felimon, Chris, Jen, Grant

Call Summary

Bill Kramer provided guidance on how to navigate the EPA Beacon site where beach conditions are reported: https://www.epa.gov/waterdata/beacon-20-beach-advisory-and-closing-online-notification

He walked participants through the report interface and each tier of information. For Submitting Data to the EPA, he said states and territories receive money to monitor bacterial indicators. States often supplement this to include other data. Some recipients have the jurisdiction to close beaches while others can only issue advisories. Data are only uploaded after January of the year following the beach season, with most data submitted in the Nov-March range. Places with shorter beach seasons tend to submit data much earlier in the year than places like FL with year-round use. For most current information, he advises going directly to the states.

EPA Beaches; BEACON 2.0
- Provide tools for evaluating and managing recreational waters
  - Predictive modeling
  - Sanitary surveys help state and local beach program managers and public health officials identify sources of beach water pollution, assess the magnitude of pollution, and identify priority locations for water testing.
- Provide site specific criteria
  - Epidemiological studies
  - Quantitative microbial risk assessment
  - Use of alternative indicators or methods

Submitting Data to EPA

Data In
https://www.epa.gov/beach-tech/submitting-data-epa

Beach information submitted and available includes:
- Water quality monitoring data (bacterial indicators)
- Administrative information about specific public use beaches
- Decision to post advisory or closure
- Locational data (Lat, Long of the endpoints of the beach) is displayed. The advantage of indexing beaches to lat/long is to enable looking upstream at potential sources of problems.
- Can only access historical data sets form EPA Beaches. Not intended to show real time.

Submitted data is consistently managed. Bill Kramer guided us through the process of jurisdictions submitting data and the pathways to BEACON. States submit data to a central data exchange. Beach location and advisory data stored on PRAWN then mapped and sent to BEACON. Water quality and station location data sent to WQX

(Accepts and configures water quality data for transmission to STORET) or directly to STORET then to BEACON. BEACON Query pulls data from WQX/STORET.

Submitting WQ Data: There is a 50 page PowerPoint about how to submit using the Exchange network service center. Data are either submitted to central data and uploaded or directly sent to a data node if pulled machine-to-machine from a site. Tools for GIS indexing are also available.

For monitoring data, Bill said there is a pre-configured report available on Beacon for verification from WQX & STORET that was previously unavailable. He is working on a verification tool to allow those with credentials to log on and access "editable" Beacon. This enables users to automatically correct and update their data sets. Testers hope to have ready next month for review. Data from 2016 are currently being submitted.

Chris asked a question of how EPA Beaches handles the error's involved with self editing.   Bill says tool not in place yet and still working that out. Also mentioned that when new requirements for data are set in place, there is a one year grace period which incorrect submissions (with regards to new requirements) will not result in failure.

Action: Felimon had trouble with schema link. Dead link. Bill will send url to XSD location.

Bill Kramer in charge of PRAWN and BEACON and can support, other support contacts listed at https://www.epa.gov/beach-tech/submitting-data-epa#support

Bill also accumulates questions/ answers throughout the year to update FAQ's to data submitters and revise guidance documents as needed.

BEACON 2.0
Data Out
https://watersgeo.epa.gov/beacon2/about.html

On the Find Your Beach site, Marion had difficulty accessing to which Bill informed the group that Beacon is designed to work with IE, Firefox and Chrome. There is difficulty with Safari.

Bill walked the group through reporting options under the Find a Beach tab demonstrating how to access all submitted data through the map page. Barb asked if he knows who is using the information and for what purposes. Bill said EPA uses Google Analytics but he doesn't get detailed information. He knows there are thousands of users, domestic and international, and can ID the types of queries (e.g., how do I get information; questions from students and folks doing multi-jurisdictional analyses). If folks have coding questions (SQL) he puts them in touch with contractors. NERACOOS contacted him to find out how to create map showing

number of days of closures, percent of beaches under advisories, etc. Bill said national average for being open is 95%.

Bill also guided group through the Reports tab. Reports can be generated for multiple beaches. Filtering options allow generating reports based on location (Region, waterbody, states, counties), date (range), advisories, and administrative beach information. Reports can be downloaded to local spreadsheets or model.

Coming down the pipe: once the verification tool is completed, EPA will work on a tool for advisory statistics. Looking at adding HAB data and viral indicators. Carol mentioned a 2016 study about viral indicators undertaken in the Pacific Northwest. She will email (Sherry—on the project) and follow up.
Carol's email: caroldorsey@gmail.com