Summary Report for INV 13- Integrating Harmful Algal Bloom (HAB) Data Across Platforms and Demonstrating a Virtual HAB Information Center

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The Need to...

- Integrate and translate data on HABs into useful and usable products for a diversity of stakeholders.
- Develop and deliver a unified platform to enhance sharing and interpretation of trusted data from various types of monitoring.
- Access to information that will inform HAB conditions based on environmental parameters and assist HAB event response and decision-making.
What has been completed?

• Task 1
  • GIS Coordinator hired, GC licenses purchased, initial meeting and calls, QA Manual, and summary report for setup of instance demonstrations.

• Task 2
  • Two initial internal sessions, summary report of data providers and metadata, initial report detailing testing results and communication, and copy of subcontracts and stakeholders that received case studies.

• Task 3
  • Eight webinar sessions of two instances and summary report of outcomes.
    • HAB hindcast - https://www.youtube.com/watch?v=Qy57UByBv3I
    • Emergency Response: https://www.youtube.com/watch?v=OpQwnCCHUN4
Outcomes

Task 1:
- Output of QA manual – helped realize levels of trustability with datasets
- Lots of data is collected but not all data is available with geospatial components

Task 2:
- Identified gaps in WQ spatial and temporal monitoring within the IRL
- Used interpolation models to fill spatial gaps, but this technique may or may not be ideal depending on the situation

Task 3:
- Leader/follower instances are useful for inter-agency communication
- Project interested a variety of stakeholders
#1 Challenge: Data Acquisition and Access

- Data QAQC is a labor intensive and technical process, especially, with the interest to move to real time sensing.
- Agencies have defined QAQC processes, while others may or may not
- Differences in agency QAQC methodology for real-time sensing
- USGS, FDEP, NOAA, IOOS all have different standards depending on sensor type, sensor measurand, and manufacturer
- Data types are limited for input into GeoCollaborate
Strengths of GeoCollaborate

• Bringing data together in one platform

• The ability to view data from disparate sources without manipulations

• Unlimited user capabilities using any device with an internet browser

• Dashboard has ability to update applicable datasets continuously
Limitations of GeoCollaborate

• No analysis functions

• Cannot incorporate/display time enabled data

• Animation tool has limited functionality and cannot save created features

• Limitations in data types
GeoCollaborate Demo

https://irl3.geocollaborate.com/follow/
Datasets used in Task 3

- UF - Taxa
- FWC – Cell Counts, Fish Kill hotline
- DEP – Toxicology from Protecting Florida Together
- SJRWMD and SFWMD - Water Quality – Temp, Salinity, DO, vectorized and modeled CHLA, grab sample CHLA, pH
- Weather Data – Wind direction (NWS), wind speed (NWS), cloud cover (GOES), air temperature (NWS)
- Boat Ramps, dumpsters, and staging volunteers
- Photo data – citizen scientists
Next Instance

We want to make the next instance ideal for you. In a perfect world what would FDEP like to see for the statewide dashboard when communicating HABs?

Datasets?
Locations (Lake Okeechobee, Tampa Bay, Others) ?
Resources?
Links?
Looking Ahead – Final Report

- Project location, background, description and timeline, award amount and anticipated benefits
- Financial summary of actual costs vs. budget
- Discussion of project schedule
- Summary of activities completed
- Documentation of appropriate tables, figures, and data
- Discussion of whether anticipated benefits have or will be realized.
  - Preliminary Opinion: high value for interagency communication, media briefings and emergency response planning
  - QAQC of HAB data from SJRWMD, SFWMD, and HBOI
Questions?