GCOOS Public Health and Safety Task Team

Follow up discussion for beach conditions/ water quality information product

February 1, 2017

Participants:  Andy, Carol, Craig, Barb, Felimon, Shin, Jen, Grant

From a Public Health and Safety report of Sept 2015, desired parameters were:
• bacteriological data
• salinity
• solar irradiation
• air and water temps
• rip currents
• wind speed and direction
• harmful marine life including HAB's

EPA Beaches will not be a useful source for current bacteriological data as most jurisdictions delay sending data to EPA until the conclusion of beach season or at the beginning of the following year.  Other sources of bacteriological data include going directly to the states and citizen science data (e.g. Galveston Bay Foundation).

The GCOOS Products and Services Committee discussed the idea of using historical bacteriological data to create a "beach report card" listing information such as # of closures/year or # of closures in summer months.  Need sources of real time/ near real time bacteriological data.
Craig mentioned TX beach program posts recent bacteriological data (e.g. http://www.galvestonbeachinfo.com/conditions.asp).  Samples are taken on a weekly basis and advisories are issued for elevated levels of bacterial indicator enterococcus.
Carol:  ADEM (AL Dept. Env. Mgmt) also posts near real time data with results posted a day after samples taken.  Beach goers are looking for accessible data to make

decisions about which beach to visit: are there jellyfish advisories? rip currents?
Andy: a historical product like the beach report card may get push back from municipalities because it could paint negative picture based on an interpretation of data. Would need to think of best way to represent historical non-biased data.
Barb: could pull 5 state data into the portal as a first step and look at next parameters with the best data.
Craig: TX reports on Karenia levels. Can lifeguards be a source for rip currents or hazardous marine life reporting?
Carol: Charlie Paxton manages a NOAA website that shows rip current potential. Also many morning news weather reports show UV index from weather service. GCOOS should choose 1-2 high traffic beaches in each state to beta test beach conditions product with select audience then refine.
Andy: Not all states present data the same way; we need to make sure that there is a consistent approach.
Carol: AL sends XML file to ADEM with EPA access database metadata.
Craig: Galveston had a contract with 5 labs and they log into a web portal, enter data and it goes live right away. They have received some pushback from municipalities.
Discussion about potential limitations with citizen science programs
- Initial interest/ effort tend to fade and data suffers
- In Sarasota, citizen science duties written into lifeguard job descriptions
- Carol: a citizen science reporting program would need to simplify reporting into quick/ easy process (click on options, little to no typing)
- Craig: could use drop down menu with 4-5 options, yes/ no questions, not quantified

Action Items:

1. Begin product development with "low hanging fruit" – bacteriological data from healthy beaches. GCOOS will have an internal follow-up call to discuss.

2. Contact Charlie Paxton to inquire about rip current forecast and UV index data and also harvesting basic meteorological data (wind sp./dir.)

The information on rip currents can be found the Surf Zone Product (SRF) that is issued by coastal NWS offices.

The text SRF products can be found here:
   http://forecast.weather.gov/product_sites.php?site=NWS&product=SRF

A map version linked to text SRF is here:
   http://www.ripcurrents.noaa.gov/forecasts.shtml

Take note that all of the products have a slightly different format. Also the products from gulf NWS offices Houston and New Orleans are missing perhaps because they are seasonal. TAE is Tallahassee.

Each office has a Beach web page and many are in a similar format and linked on this page:
   http://www.weather.gov/beach/

The Tampa Bay and other NWS offices have beach pages that can be found from clicking on the sites from this map:
   http://www.wrh.noaa.gov/wrh/forecastoffice_tab.php

The UV Forecast in text and map format is located here:
   http://www.cpc.ncep.noaa.gov/products/stratosphere/uv_index/uv_current.shtml

Lifeguards may be the most obvious source for beach information but they may not be able to report on a daily basis. Some surf shops or surfers maintain daily beach reports on the web that might be helpful and they may be motivated to share reports. Most surf web sites are automated and derived from wave models. I can come up with a list if needed.
   http://Gulfster.com
   http://lennyssurfshop.com/


3. Discuss wind speed/ dir. coverage over 5 states with GCOOS data mgrs.

4.  Proceed with Carol's suggestion to begin with 1-2 beaches per state and beta test the product.  Which two beaches would you choose from your state?  FL should have at least 1 beach from Panhandle (more susceptible to elevated bacteria levels) and not worry about east coast (advisories less frequent).

We will aim to reconvene at the end of February/ beginning of March with action items report and create plan to move forward.