CESSPOOL CONVERSION WORKING GROUP (CCWG)

Main Group - Meeting Summary

Date: April 3, 2020; 1:00 – 3:00 PM
Location: Webinar via Zoom

Members Present:
Ted Bohlen (TB)
Sina Pruder (SP)
Eric Nakagawa (EN)
Darren Lerner (DL)
Michael Mezzacapo (MM)
Kawika Winter (KW)
Erica Perez (EP)
Stuart Coleman (SC)
Representative Nicole Lowen (NL)
Lori Kahikina (LK)
David Smith (DS)

Members Not Present:
Bill Kucharski (BK)
Lani Fernandez (LF)
Ken Hiraki (KH)
Jason Kagimoto (JK)
Senator Kalani English (KE)
Bruce Anderson (BA)

Facilitation Support:
Christin Reynolds
Kayla Saunders

Non-Members:
Roger Babcock
Cari Ishida
Elizabeth Benyshek
Chris Shuler
Veronica Rocha

Meeting Overivew:
A. Call: 1:05pm by TB with quorum

B. Approval of December 3rd meeting minutes led by TB
   a. No comments from group or public
   b. KW moves to approve meeting minutes
      i. SP seconds motion
   c. TB moves for vote to approve
      i. All say "aye"
      ii. No oppositions, abstentions

C. Michael Mezzacapo's Final Report
   a. Reviewed focus areas and the appendix table
   b. Discussion:
      i. Question: Is there any research stating that δN15 is not a viable indicator?
         1. There are some limitations to using δN15 as the primary indicator, however, when you also incorporate land-use data

and mapping, you can usually overcome those limitations
(i.e. if you know the source)

D. Review of Data & Prioritization Scope
    a. In early 2019, this working group voted on the goals for the three
       subgroups (data & prioritization, finance, and technology) which would
       each have their own individual scope
         i. At the time, the working group did not have enough information to
           write a scope for the Data & Prioritization subgroup. This will be
           discussed and reviewed during this meeting.
    b. Reviewed Data Collection & Cesspool Prioritization Subgroup Goals
         i. Discussion:
           1. Comment: The definition of prioritization might be worth
              reviewing, as it is important for the working group to be on
              the same page.
           2. Question: Regarding, "understanding impacts of different
              treatment," how do we know what type of treatment is
              needed to bring these indicators down enough in order to
              benefit ecosystem health? Will that be carried over into the
              next scope? How are we going to address that specific
              bullet?
                a. Some guidance will come from the Technology
                  subgroup
                b. There is a modeling component in next steps that is
                  currently being developed
                c. Wastewater treatment is very site specific
                d. Modeling scenarios of different treatment types on
                  Hawaii island was mentioned
    c. Reviewed draft of scope objectives
         i. Five objectives:
           1. Modify, amend, and develop definitions and criteria (as
              needed) for priority upgrade groups/areas as identified in the
              Department's 2017 Legislative Report
           2. Create a process to assign cesspools to upgraded priority
              categories
           3. Make recommendations, based on the estimated severity of
              impacts, from obtained data, where cesspools in high priority
              areas should be required to convert sooner than 2050
           4. Identify areas where data is insufficient to determine a
              priority classification of cesspools and determine the
              methods and resources needed to conduct and complete
              analysis for prioritization
           5. Consider criteria for exemptions of cesspool conversions
         ii. Discussion:
           1. Comment: This scope does not include places that have
              existing datasets and monitoring programs

- a. Question: How do places with existing datasets and monitoring programs affect the definition of prioritization?
  - i. Prioritization mentioned in the 2017 Legislative Report – use this as a baseline to build upon
  - ii. Overall goal of this working group is to make a report to legislature
  - iii. Idea to provide future recommendations for work that is not covered under the scope of Act 132
  - iv. Working group can revisit bounds/limitations if necessary
  2. Comment: A data science student could be a great asset to the working group for data collection and watershed modeling. They can also assist with prioritization in that they can look at distance/radius measurements utilizing various layers in GIS/mapping formats (i.e. distance from public drinking supply, depth to groundwater, etc.). This could also help group to identify limitations.
  3. No public comments

E. Legislative Updates
   - a. Before the legislature shut down, five bills (HB1859, HB2151, HB2196, SB2379, SB2503) were still alive
   - b. Unsure of COVID-19 impacts
   - c. Discussion:
     - i. Question: Is there anything that the working group can do to prepare for next session?
       1. Continue to track legislature
     - ii. Question: Is it worth revising some of these bills, by removing specific appropriations (i.e point-of-sale inspections, etc.), so that the working group does not lose momentum?
       1. Be prepared for anything
       2. If certain appropriations are removed, there will still be an uphill battle for any initiative that adds additional burden/penalty to homeowners
     - iii. No public comments

F. Research Update by Chris Shuler, University of Hawaii
   - a. Reviewed seaweed collection data from four major islands (seaweed is a testing metric for wastewater impact)
   - b. Results:
     - i. Dataset could be useful in the prioritization scheme
     - ii. Resulting numbers help to indicate the source of the nitrogen that is in that area and thus, feeding the seaweed

1. The higher the number, the greater the wastewater impact, the lower the number represents agriculture impacts. It can be complicated because the middle range can represent a blend of agricultural and wastewater impacts or the natural background levels. Pairing results with land use data can help to identify sources of nitrogen and interpret the results.
iii. Sampling is conducted in 2km swaths
iv. Each location number is the average of three different samples
v. Comparing this data with Bob Whittier's models
vi. Discussion:
1. Question: When do you anticipate having Hawaii island completed?
   a. The data is already back from the lab, but awaiting compiling with the research team.
2. Question: Can you share links to this data with the group? Are there any areas that were a surprise in terms of having high numbers?
   a. The data is currently provisional – will check on ability to share with the working group
   b. There are several wastewater injection wells throughout state that undergo different processes and cause more denitrification due to their scale. Those will increase δN15 values and because it is injected into ground, the mechanics and movement of the plume is unknown. There is ongoing work on deciphering these effects.
   c. δN15 sources can be mixed, which can dilute or affect environmental signals → %N can help consider this
3. Question: The working group has been primarily focused on cesspools. Are we also looking at wastewater injection wells?
   a. It is not something explicitly written out in the scope but the working group may want to include this information as a factor.
4. Question: What are some challenges with using specific species of algae?
   a. Having multiple species at sites is beneficial for proper comparison
   b. Specific species are targeted because they are invasive and are more adapted to higher nutrient conditions
   c. Have not looked at patterns between or amongst species yet

G. Overall Questions and Comments
   a. First Public Outreach subgroup meeting is on April 28th

      b. Need to determine the working group plan moving forward with limited resource availability

      c. Next working group meeting is TBD

      d. No public comments

H. Adjournment by TB at 2:32pm