

Biostimulatory Substances/Bio-Integrity Project

Stakeholder Advisory Group (SAG)

December 22, 2016

Meeting Objectives

The main goals of the meeting were to:

1. Provide an update on the merging of the biostimulatory substances and bio-integrity projects.
2. Present the latest technical science from SCCWRP on the algal index and Biological Condition Gradient (BCG).
3. Present the combined Science Panel and hear any feedback or concerns.
4. Establish a timeline for upcoming meetings for 2017.

Discussion of the meeting objectives and comments by stakeholders during the meeting are as follows:

Environmental Stressors

How much of a portion of all other stressors drive water quality besides hydromodifications? Has that been figured out?

Translators

Translators: Is the state going to say what or how to use the translators? Is the state going to select values for each part of the state?

What is the difference between a numeric translator and numeric standards?

Reference Sites

Reference sites: How are we overcoming sites without reference sites such as the central valley?

Will connectivity be excluded for reference sites?

How will we correlate reference sites and spatial extrapolation? Worried about "area" representation and how the two will match up.

Central Coast doesn't really have reference sites for alluvial streams, which are the most highly impacted streams. It is problematic and reduces credibility of the reference-based tools. So, you have not answered the questions for the Central Coast.

There are some sites out of the reference zone for the South Coast. Will these receive different treatment?

Expert Response:

The scientists who determined how reference sites would be selected agreed that the physiographic setting experienced by BMIs (Benthic Macro Invertebrates) is at least as important as geography. While they acknowledge certain geographic gaps in the reference pool (e.g., the Central Valley), the reference pool does a good job of representing the full range of climate, elevation, stream size, geology, etc. that occurs naturally across the state. They evaluated how well the reference pool captures the range of natural environmental settings by comparing the distribution of key environmental variables at reference sites to the distribution of those same variables at probability sites (the latter of which provided an unbiased estimate of those ranges). Even though there are no reference sites in the Central Valley, the reference pool (and therefore the model), does capture the range of natural environmental settings experienced by BMIs in the Valley, and in principle should be applicable there.

CSCI and ASCI

Are the graphics (CSCI and ASCI slide) going to be over laid or individual?

Will feasibility play a part in the ASCI?

Has any thought been given between the lifespan of bugs and algae?

Is the BCG a threshold and will the CSCI and ASCI be given out at the same time to policy makers?

Has someone at the State Water Resources Control Board established a base line/threshold for CSCI for 303(d) listing?

Are you going to give an overview of the ASCI development?

What are the algal metrics being used for the pMMI?

The CSCI was developed with extensive input from an expert panel. Has consideration been given to having an expert panel give input on ASCI development?

Is there a reason you didn't use soil maps for the state instead of the geology maps - it seems soil - rather than geology would have more influence on Algae

How does giving Expectation to scientist when creating a CSCI reference number (for bug) not create a bias?

10th percentile for assessment

Who picked the 10th percentile for assessment? When talking to scientist they say they do not set policy put in reality they do because policy is based off the numbers science picks.

BCG

It would be helpful if the scientist would present what the BCG looks like if you take out the pristine reference streams.

How subjective is the assignment of attributes to bug and algal taxa to BCG bins? What is controlling the science or work involved with these assignments?

Will the curves be revisited over time because factors over time (climate change, etc.) can change/influence the curve?

How does ecosystem functions loss in bin 4 or 5 of the BCG work with biomass?

How does the BCG deal with interactions between stressors?

I have a question about the use of the predictive model. Could this lead to propensity profiling that could lead to regulation based upon prediction rather than actual conditions?

BCG and Different Channel Types

Explain how the BCG is being used for different channel types, ex concrete lined channels.

Can there be times allowed for a webinar for modified channels?

Monitoring

Does time play a role in sampling, once a month or more that once a year?

A seasonal stream may have 2 base indices and this is not reflected if sampling is only done once a year.

Default Targets

Are there going to be default targets for the state or just the NNE?

Technical Science Material Availability

For completed work, is the info summarized where it can be read? Is it accessible?

Seasonality and Assessment

How are you going to deal with seasonality? The Biostem approach is a dry weather assessment. What are you going to do in wet weather?

Terminology

Define feasibility

Watershed Approach and Alternative Control Measures

Watershed approach has a few wrinkles; can the state create permission to achieve biological condition gradient using methods other than controlling nutrients?

Can Martha quickly explain the watershed approach?

Element 1 and 2 of the Focus Group Amendment seems to pose a question. How will they work with policy?

Science Panel

Will the science panel meeting be held like the CSCI panel?

Available Documentation

Is there a written document with the latest science from the June 23rd science meeting available to read?

Regulatory Group

Will there still be a regulatory work group?

Special Studies

Can you ID special studies on the timeline?

Classification

In the document provided, (November 2016, section 3.C) is there a way to tell where the classification came from?

Who determines the range corresponding to beneficial use attainment in #1.2?

Science and Policy Development

If science is still being developed and policy will depend on science, yet to be determined, then, how can regulators justify using these tools (still under development) for 303(d) listing purposes, TMDL development and inclusion in permits?

Land Use and Setting Goals

Could you say more about how you'll take location and land use into account in setting goals for specific streams?

Limited Productivity vs Eutrophication

Understandably, in wadeable streams, eutrophication would be a more prominent concern, but there are clearly examples in the state where limited productivity may be impacting beneficial uses. How will this combined project incorporate metrics of limited productivity (e.g., reduced growth rates)?

Miscellaneous

From a water quality improvement, the approach makes sense. It falls apart when regulation begins.

To clarify my question, look at the graph where PC1=2, PC2 =0

Next Steps and Action Items

Next steps include:

- Check the schedule and timelines. They need adjusting.
- Let people know (or create a document) where the data is coming from and how it is being collected (protocols).
- The combined Science Panel with new members was accepted by the stakeholders and future meetings will be scheduled accordingly.
- Make sure June Science Panel meeting report is available online.
- The web page needs to be updated and/or a new web page needs to be created for the combined project.