

Attendance: Terry Fleming, Mark Stephenson, Autumn Bonnema, Jay Davis, Jon Marshack, Cassandra Lamerdin, Dave Crane, Jennifer Doherty, Michael Lyons, Collin Eagles-Smith, Josh Ackerman, Chris Foe, Stacey Swenson, Max Puckett, Karen Taberski, Tom Maurer, Scott McReynolds, Bob Brodberg, Karen Worcester

Item 1: Roll Call, Agenda Review, General Updates

Key Points

- Terry Fleming - There are approximately 300 fish samples in the freezer from the EPA Klamath TMDL study. Would anybody on the BOG would like these samples for archival uses?
- The BOG will have approximately \$300K for monitoring after budgeting for the BOG Strategy and BOG management. The BOG Strategy will ultimately drive the monitoring effort in the future and needs to be considered when selecting monitoring this year.

Action Items

- Terry Fleming will send Jay Davis an email regarding the Klamath TMDL fish samples.

Item 2: Potential Bioaccumulation Monitoring Elements for 2011/2012

Discussions at the last meeting (see minutes) and subsequently via email (see "Perspectives..." document) have left us with a shorter list of potential monitoring elements for 2011/2012.

1. Wildlife BAF/fish translator study

Desired Outcome:

- Decision on topics to pursue in 2011/2012, or lay out a path forward toward that decision

Key Points

- This sub-item moved up in the agenda; the rest of the proposals addressed below in Item 5 (below).
- Proposal will compare Western Grebe blood, feather, eggs and small fish mercury (Hg) levels in lakes found in CA.
- The desired outcome is to see the CA statewide distribution of the Hg levels but so far, the 12 selected locations for this study are located generally in Northern CA.
- Michael Lyons of Region 4 is willing to allocate some of his regional monitoring funds to get some locations in Region 9 and potentially get a better statewide distribution.
- The goals of this study are addressed by the following statements/questions:
 - Is the current Water Board statewide BAF appropriate?
 - Potentially use the data collected from this study and compare the information with the current statewide BAF.
 - Does the statewide BAF need to be adjusted based on the data collected in this study?
- Reporting: Money for reporting is built in; there will be a report that published by SWAMP
- This study will not include Project 1C (Determining Mercury Concentrations in Fish Species from Representative California Reservoirs) found in the "Project Descriptions" file (see August BOG meeting files).
- This can be a stand-alone product but we could potentially add a 2nd year (depending on funding next year).
- Key issues:
 - BOG members were concerned with a lack of lakes in Southern California.
 - The team responded that the study as proposed would yield information that could be applied across the state, but agreed to consider adding lakes in southern CA to achieve a more even spatial distribution.

- Only one lake in Region 4 when you look at the approximate locations of recent (1980-2003) colonies of grebes in California (Fig. 1)
 - BOG members were concerned about the sole focus on mercury.
 - Region 2 expressed concern about the study not evolving out of program needs. Tom Maurer explained the high utility of the study for TMDL development for areas in the state without extensive data on mercury in wildlife or their prey.
 - Lake Davis is missing from Fig. 1 but was part of the SWRCB's sport fish lake study
 - Eight (8) of the 15 proposed lakes are BOG lakes but it will be for different years.
 - This would be the first lake wildlife risk assessment on a statewide scale.
 - The study will not inform the forthcoming mercury TMDL, but will support subsequent regulations (TMDL implementation and updates).
 - The present draft State Board fish objective is for trophic level 4 fish; we need to be able to relate small fish to sport fish.
 - The study would benefit USFWS in their consultations on objectives and TMDLs.
 - This study is not able to coordinate with USEPA national lakes study (lack of overlap).
 - This study includes small fish which is data missing from other studies.
 - There would be less power when looking at Hg across years.
 - Will refer back to previous lake studies but it is not the focus of the study.
 - Partnership is great but unsure if the scope of this study will answer the statewide questions.
 - BOG members noted that this team has done stellar work in the past for CALFED and for the RMP.
- Background information and reason for selecting grebes:
 - This species has the broadest distribution of breeding birds on California lakes
 - Piscivorous diet makes them good indicators of lake water quality
 - Migratory, breed (July-Oct)
 - Flightless during breeding time
 - Brood for a few weeks to a few months
 - Hg in eggs will be locally derived, representing exposure through diet from 2-3 weeks before collection, and can be compared with adult Hg blood levels
 - Collect feathers to address local/non-local contamination
 - Four habitat types included in study design
 - May be able to relate small fish to large fish because 8 of the 15 lakes were sampled by BOG

Action Items

- Revise the proposal based on BOG feedback. Include one-year and two-year options. Reevaluate list of candidate lakes based on BOG feedback (prioritize sampling of BOG lakes, especially BOG trend lakes)
- Chris Foe will look into obtaining funds for sampling additional sport fish species.
- Evaluate inclusion of other contaminants
- Scope this further and make it work. Shop the proposal around to solicit other potential funders and to find other partners. The Mercury TMDL program should chip in. Chris will pursue this.
- It is important to keep the idea alive that SWAMP is about monitoring.

Item 3: BOG Strategy Development

A revised summary of a draft strategy will be presented.

Desired Outcomes:

- Approval of the problem statement in the draft strategy
- Agreement on tentative plan for long-term cycle of statewide monitoring surveys
- Feedback on other elements of the strategy

Key Points

- Problem Statement needs to be expansive not just SWAMP focused; needs to be more positive and acknowledge progress that has been made.
 - Draft was based on the Wetland Strategy but added peer review
 - Explains how to more and how they fit together
 - Think about methods, procedures, data management, help, etc.
 - Goals need to have multiple perspectives
 - We need to think about what our end points will be in order to know what we need to do
 - Human Health?
 - Aquatic life?
 - Wildlife?
- We need to think about the BOG Strategy Document as a Marketing Tool
- Add Public Health to Beneficial Uses Addressed.
- Coming up with general guidance for bioaccumulation data collected in permits
- Determine the interval of cycle sampling (What is the purpose?) Are we going to move to a ten-year cycle? If many of the compounds we are looking at are stable in the environment – what does the ten-year cycle tell us anything different then we already know?
 - The group generally supported a 10-year cycle for assessment of status.
 - Important to include trend assessment.
 - Consider paring down the statewide surveys so they can be completed in 3 years rather than 5.
 - A probability survey every 10 years is not a good approach for trends.
 - We should set up a trend network. Mussel watch is an example and should be part of the network.
 - For trends, you monitor for a purpose, i.e., tracking effectiveness of control programs. Natural variability could be huge. It is best to have 3-5 data points before controls to detect a change.
 - The Strategy should provide a rationale for the sampling interval and sampling design in general.
- BOG should create general infrastructure: sampling design, data sharing, synthesis
- Problem 4 is the business of TMDLs (not BOG) – make this clear. This strategy, however, is overarching, covering BOG and beyond.
- Include something about CECs, something about trends.
- Goals should include more on coordination, partnering, sharing assessment tools, working toward the standardization needed to bring data together. QAPPs, information management.
- Nobody else is doing CECs or biotoxins – these are good areas to work on.
- The Strategy should explain how everything fits together. The State would put more funding toward bioaccumulation if they see how everything fits together.
- Target specific programs (e.g., NPDES) – target audience for the Strategy. Other programs to target: ASBS, Stormwater Monitoring, TMDL. For example, BOG could develop guidance associated with an Ocean Plan amendment.
- Max did an SOP for standard methods – example of something valuable.
- See Partner discussion below...Item 4.

Action Items

- Add Public Health to Beneficial Uses Addressed.
- Look at Key Points for additional Action Items.
- Address Table 1 after Strategy at a subsequent meeting.

Item 4: BOG Partners

SWAMP has a strong interest in bringing additional partners into the BOG in order to leverage our monitoring and assessment efforts.

Desired Outcomes:

- Agreement on list of high priority partners
- Identification of people to contact and BOG members to assist

Key Points

- Think about other interested groups
- Think about what is the value to them to participate.
- Find members who do not know about us.
 - Local, national, NGO, etc.
- Focus on groups who are doing monitoring and/or assessment
- Figure out who is participating and who is not. Just because they are on the BOG email list does not mean we are communicating or participating with a group. Find out if there were staff changes or other issues that would contribute to the lack of participation.
- It is important to find partners that are willing to pay to play.
- Prioritize partners and coordinate. Think about whom we can actually collaborate with. We need to have partners from across the entire state. The partnership needs to go both directions.
 - Think about how the partner would look at our information and how it will be useful to them
 - Comparable procedures and methods is one important area
- Additional potential partners:
 - Universities
 - State Board
 - FERC unit
 - NPDES
 - ASBS
 - TMDL
 - Stormwater
 - DWR mercury unit – Michael Perrone
 - National and state parks
 - Biotxin groups
 - Greg Langlois, DPH
 - Raph Kudela, UCSC
 - Alex Parker, SFSU
 - Southern California
 - SCCWRP
 - San Gabriel River watershed
 - Friends of LA River
 - Santa Clara River
 - Council for Watershed Health
 - RMP

Action Items

- BOG members all add to the list
- Show partners how their data compare with BOG data - useful function for BOG
- See above key points to develop direction of the Strategy.

Item 5: Potential Bioaccumulation Monitoring Elements for 2011/2012

Discussions at the last meeting (see minutes) and subsequently via email (see “Perspectives...” document) have left us with a shorter list of potential monitoring elements for 2011/2012.

2. Biotoxin Monitoring
3. Probability sampling with USEPA
4. Revisit sampled
5. Sample new water bodies
6. Trend monitoring

Desired Outcome:

- Decision on topics to pursue in 2011/2012, or lay out a path forward toward that decision

Key Points

Biotoxin Monitoring

- A huge, important topic that touches on multiple beneficial uses.
- Interest is especially high due to the deaths of 21 sea otters from exposure to microcystin and the invertebrate die-off on the Sonoma coast. The invert die-off was due to yessotoxin – a toxin first identified on the Pacific coast in 2009
- A workshop or conference is needed to scope out a statewide approach, beginning with a statewide screening study to assess the problem, but also including a long-term strategy.
- No routine monitoring of biotoxins is done except for the DPH work.
- Region 3 is doing SPATT monitoring at 33 river mouth sites. The study may go another three years. Water only.
- Tribes in northern California are doing some freshwater mussel monitoring and finding toxins. See report from June 2009.
- There was a closure this year for spiny lobster due to potential risk (no toxin monitoring).
- HAB network is marine-based; they have a list serve but currently no data, only report species.
- Need to think about who this product is aimed at – DPH (shellfish)?
- Easy to blend w/Nutrient
- How fast can we get onto this project?
- Microcystis is an issue in lake, streams and coast.
- Look at: <http://oehha.ca.gov/ecotox/microcystins.html>
- DPH only looks at aquaculture not wild but NOAA’s mussel watch does look at wild popns.
- NOAA’s mussel watch maybe ending because of a lack of funding.
- Need to make sure there is a need for a biotoxin workshop and find out if there is interest.
- Goal of the workshop – what will it take to set up a screening study in CA and how will it fit into our longer-term strategy.

These ideas were not currently moving forward but may be addressed later?

- Probability sampling with USEPA
 - Terry Fleming was ambivalent about this. We could do it if the group is supportive. The partnership is a plus.
 - Another option would be to do the EPA lakes with a different endpoint, e.g. grebe bioaccumulation. The lack of overlap of EPA lakes and grebe lakes precludes this though.
- Revisit sampled lakes
 - There was a lack of support for this.
- Sample unsampled water bodies
 - A second tier of water bodies that still have significant fishing pressure could be sampled. Little Oso Flaco in Region 3 is an example that was highly contaminated.
 - There was a lack of support for this.

- Trend sampling
 - Some of this may effectively happen as part of the grebe study if trend lakes or other BOG lakes are selected.

Action Items

- Look into the need for a biotoxin workshop.
- Forward info from Karen W on biotoxins to the group.
- Karen W and Karen T write up a scope.
- Attempt to find partners for the workshop.
- Make sure there is a need – not redundant with other efforts.

Item 6: Questions from the Data Management Workgroup

1. What priority data set does the BOG want/need access to?
2. Are there any barriers regarding data management, GIS or web development that the data management workgroup could help with?

Desired Outcome:

- Answers!

Key Points

- They needed to know what the datasets are and what could be the problems.
- Data Management Workgroup (DMW) wants to know if there any permit related data that are required and where they are located.
- Especially want to know what data are not in CIWQS
- The DMW needs this information before they meet Nov. 11 because they will be presenting the information collected from the BOG to the Water Quality Monitoring Council Nov. 30.
- The DMW is specifically interested in fish tissue data.
- Asked the group if there are any data that you know of that could be part of a paper, CD, written at the regional level and potentially on a shelf somewhere in the regions.
- The cross walk from CIQWS to CEDEN is a current barrier but is a high priority at the State Board.

Action Items

- Jennifer Salisbury will send a list of the potential priority data sets that the BOG would want/need access that she was able to capture to Jon Marshack. Sent 10/28/2011.
- Jennifer Salisbury will send an email to the FERC unit regarding fish tissue data they may have. Sent email 10/31/2011 to Erin Ragazzi in the FERC unit. J. Salisbury needs to follow-up with the FERC unit.

Item 7: Next Meeting

Key Points

- Jay Davis suggested the next BOG meeting could be either during the last week of November or during the first week of December (Nov. 28-Dec. 2) or the week after that on Dec. 5th or 6th. It seemed like the most popular time was December 5 in the afternoon (1 PM).

Action Items

- Find out when we are having the next BOG meeting.
- Next meeting will include the following items: Strategy update, partner list, monitoring for 2012 and Dominic Gregorio will present the Mussel Report.
- Power analysis of maintaining the trend California Mussel Watch needs to be completed.