

Delta RMP Steering Committee Meeting

October 10, 2013

10:00 AM – 4:00 PM

Cal/EPA Headquarters Building

Training Room 2

1001 I Street, Sacramento, CA

Draft Summary

Attendees:

Voting Steering Committee (and/or Alternate) members present¹:

Gregg Erickson, Coordinated Monitoring (IEP/CDFW)

Kenneth Landau, Regulatory – State (Central Valley Regional Water Board)

Mike Wackman, Agriculture (San Joaquin County and Delta Water Quality Coalition)

Stephanie Reyna-Hiestand, Stormwater, Phase II Communities (City of Tracy)

Casey Wichert, POTWs (City of Brentwood)

Debbie Webster, Alternate–POTWs (CVCWA)

Dave Tamayo, Stormwater, Phase I Communities (Sacramento Stormwater Quality Partnership)

Val Connor, Water Supply (SFCWA)

Vyomini Upadhyay, Alternate–POTWs (SRCSD)

Others present:

Brock Bernstein, Facilitator

Thomas Jabusch, SFEI-ASC

Stephen McCord, MEI

Brian Laurenson, LWA

Meghan Sullivan, Central Valley Regional Water Board

¹ Name, Representation (Affiliation)

- Joe Domagalski, USGS
- Patrick Morris, Central Valley Regional Water Board
- Jay Davis, SFEI-ASC
- Dalia Fadl, City of Sacramento
- Erich Delmas, City of Tracy
- Joe Gully, LACSD
- Adam Olivieri, Bay RMP
- Kevin Buchan, WSPA
- Lori Webber, SWRCB
- David Williams, BACWA
- Cristina Walter, City of Stockton
- Donna Snider, San Joaquin County
- On phone:*
- Karen Ashby, LWA
- Kim Spears, City of Roseville

1.	<p>Panel Discussion Kevin Buchan (WSPA), Joe Gully (LACSD), Adam Olivieri (BASMAA), Ken Schiff (SCCWRP), and Dave Williams (BACWA) visited, following an invitation to discuss with the SC some of the challenges and opportunities of implementing a RMP. A synopsis of the panel discussion is attached.</p>
2.	<p>Introduce the business part of the meeting A quorum was established</p>
3.	<p>Approve Agenda and Minutes Agenda and minutes were approved</p>
4.	<p>Information: Regional Board Resolution Ken Landau provided an update on the outcomes the 3-4 Oct Central Valley Water Board meeting regarding the resolution for participation of dischargers in the Delta RMP in lieu of individual monitoring efforts. The resolution was adopted. The plan is</p>

	<p>to reopen Delta RMP permits to put in the language but the new language can also be used for other regions. The Regional Board Chair made time on the agenda to hear a presentation on the RMP. The Board members took 30 minutes worth of time out of long day to listen and discuss, which Ken saw as a good sign. The current language in NPDES permits of POTW dischargers inside the Delta already has two sentences alluding to the possibility for them to be reopened to allow RMP participation, but there is not much detail. In future renewals, permit writers would include additional language with more details. There will be some similar language for MS4s. Mike Wackman had already suggested putting similar language into ag waiver permits.</p>
<p>5.</p>	<p>Information: SFEI-ASC and the San Francisco Bay RMP Jay Davis (SFEI-ASC) gave a presentation on how the Bay RMP operates, including some background on SFEI-ASC and its role. One of Jay’s main points was that management questions are very important. For example, it has been important to Adam Olivieri and the Bay Area Stormwater Management Agencies Association (BASMAA) to articulate the Bay RMP management questions such that the program addresses permit provisions. Increasingly, special studies are playing a bigger role in the Bay RMP. For example, a recent concern that has become a bigger and bigger issue is nutrients and the potential reduction of resilience in the Bay. The Bay RMP’s spending on nutrient issues has increased from zero in 2001 to \$0.5M currently. Contaminants of Emerging Concern (CECs) are an area where the RMP was able to get the biggest bang for the buck with relatively little money by inviting the leading experts in the field to participate in strategy teams and think about the Bay, in exchange for very modest honoraria (\$1,000 per year) and paid travel expenses. Cross-fertilization and bringing in outside expertise to strategy teams have resulted in lots of leveraging. Jay also explained that other participants in these strategy teams are not compensated and their time is covered by their organization not the program. The same thing applies to the Technical Review Committee (TRC): the program pays SFEI staffing and nobody else’s time. Jay explained that the hardest part of the program is answering the right questions. Brock Bernstein suggested that efficiencies could be realized by using SFEI-ASC as the implementing entity of the Delta RMP, due to the potential overlap with the Bay RMP in regard to various technical issues. Jay added that SFEI-ASC staff know a lot about that Bay and have other knowledge that does transfer, such as data management. Economies of scale can be realized by the two RMPs through SFEI-ASC in areas such as data management.</p>
<p>6.</p>	<p>Decision: Initial RMP priorities No decision was reached. The management questions for each of the proposed initial priorities were further discussed and refined. The discussion started with management questions for methylmercury (MeHg). Status and trends in MeHg water concentrations and fish tissue concentrations</p>

emerged as the MeHg issues of most mutual interest. A big missing piece relates to the baseline: do we know enough about the baseline to demonstrate if management actions are having an effect? There are concerns that even though dischargers achieve load reduction goals, these may not be translating into fish tissue targets being met. Dave Tamayo commented that more information is also needed on where restoration activities are expected to impact MeHg concentrations, to know where to put stations. DWR is engaged in monitoring and modeling the impact of restoration activities on MeHg in the Delta.

The next discussion topic was toxicity, which is an issue of key interest to many different stakeholders, and a number of pros and cons, possibilities and concerns were discussed. Even though there is some understanding of toxicity patterns from studies done over the past few years, there are data gaps. For example, more sensitive tests have been developed for certain constituents and a Delta-wide picture of toxicity has not been established. However, dischargers expressed concerns over the utility of broad-based toxicity assessments. These concerns were mostly related to open issues regarding a potential monitoring design and available standard testing methods and concerns about whether and how they could help identify and address the causes of any toxicity that would be detected. Dave Tamayo suggested that one would need to pick endpoints that have environmental relevance or lead to information that would have environmental relevance. If toxicity would be observed, the participants would then have some indication what the relevance is. The toxicity discussion touched briefly on the topic of pesticides. Dave Tamayo commented that looking at pesticides should be contingent to participation by or partnering with SWAMP and DPR. Debbie Webster noted that USEPA and DPR have ultimate regulation for pesticides. Meghan Sullivan replied that the Regional Board is aiming for more interaction with DPR on pesticides. Ken Landau added that the Water Boards are also working with USEPA on harmonizing regulations.

The discussion skipped over nutrients, which were discussed last time, and moved to pathogens. Debbie Webster clarified that “pathogens” in the context of this discussion refers specifically to *Cryptosporidium* and *Giardia*. Ken Landau confirmed that a pathogen study as proposed is not mandated in the Basin Plan. Debbie Webster clarified that the intent for the proposed pathogen study is not to be routine monitoring but to be a special study. There has been an agreement of the Drinking Water Policy group to get this study done and “put it to bed”, however,

	<p>several participants of the discussion felt it wouldn't necessarily need to get done through the RMP. The discussion did indicate that there are other mechanisms for doing the study. Brock Bernstein noted that such a study probably would not take up lots of resources and Erich Delmas added that the study participants would probably be able to bring in some auxiliary funding. Brock reminded the SC of the purpose of the conversation being twofold: 1) identify issues important for the SC over the next 2-5 years, and 2) pick priorities from this list to get started. Pathogens are not intended to be a long-term component, however, several discussion participants saw an advantage in a project that could be readily started to produce capacity. Brock reminded the SC to focus on trying to figure out what combination of priorities is acceptable to everybody. However, the discussion also highlighted the need for a nexus between the contributions of participants and their monitoring needs and constraints by several groups on what they can spend their money on based on their mandates and missions. Brock suggested as ideas for next steps: 1) get more clarity about the specific questions for each priority and how different partners might be involved, and 2) decide on the most logical starting points.</p>
7.	<p>Next meetings The next meeting will be on December 2nd at the Sacramento Regional County Sanitation District (9am-12pm).</p>

Panel Discussion Summary: October 10 Delta RMP SC Meeting

The purpose of the panel was to discuss some of the challenges and opportunities of developing and implementing a regional monitoring program with participants of the San Francisco Bay RMP and the Southern California Bight Program, to understand the thinking and concerns related to various decisions, including governance, participation, and program design from the perspective of long-term participants. The panelists were

- Kevin Buchan
Western States Petroleum Association (WSPA)
- Joe Gully
Los Angeles County Sanitation District (LACSD)
- Adam Olivieri
Bay Area Stormwater Management Agencies Association (BASMAA)
- Ken Schiff
Southern California Coastal Water Research Project (SCCWRP)
- Dave Williams
Bay Area Clean Water Agencies (BACWA)

The panel discussion started with introductory statements by each of the panelists, followed by a Q&A style discussion in which they addressed questions of the Delta RMP Steering Committee members. The summary of the conversation is organized around a short-list of questions that has previously been put together by program staff, with guidance from the Steering Committee.

The U.S. Environmental Protection Agency and the Central Valley Regional Water Quality Control Board provided support for the panel discussion. Brock Bernstein was the moderator.

Thomas Jabusch (San Francisco Estuary Institute-Aquatic Science Center, thomas@aquaticscience.org) prepared the summary.

Introductory Statements

How are you involved in regional monitoring and what role are you playing in your program?

Adam Olivieri: I serve on the board of the San Francisco Estuary Institute (SFEI) and BASMAA and have been with the Bay RMP for 20 years. I'm a member of the San Francisco Bay RMP Steering Committee.

Joe Gully: My background in regional monitoring includes serving on various technical, planning, and oversight committees for the Bight Regional Monitoring Surveys since 2003, chairing of the Central Region Kelp Survey Consortium from 2005-2010, and co-authoring the Santa Monica Bay Restoration Commission's Comprehensive Monitoring Program released in 2007. I'm also knowledgeable regarding the implementation of the San Gabriel River Regional Monitoring Program initiated through NPDES permit requirements at several Sanitation Districts water reclamation plants.

LACSD participates in 4 major regional RMPs that we implement through permits: the Southern California Bight Regional Aerial Kelp Survey, the Bight Monitoring Survey, the Comprehensive Monitoring Program for Santa Monica Bay, and the San Gabriel River RMP. Our total funding for the San Gabriel River RMPs is \$400,000 per year, which also accounts for associated administrative costs. Administrative costs need to be accounted for.

Ken Schiff: I'm the Deputy Director for SCCWRP and have been coordinating and facilitating southern California Regional Marine Monitoring (aka "the Bight Program") since 1994.

Dave Williams: The San Francisco Bay RMP was initiated in the early 1990s. I was the Director of Wastewater at the East Bay Municipal Utilities District (EBMUD) for 20 years and was responsible for budgeting for the program, providing monitoring results that served as the basis for cost allocations for the program, and had staff involved at various times in technical aspects of the RMP. Having left EBMUD, I am now the Executive Director of BACWA, which has significant interests in the RMP as it relates to gathering data, which often is utilized to help establish regulations.

Kevin Buchan: I represent 5 refineries in the Bay Area and chaired the Bay RMP Steering Committee for 9 years from 2000 to 2009.

What point would you like to make with regards to regional monitoring/what is your key message/take-home message to the Delta RMP SC?

Adam Olivieri: The Bay RMP has been very successful, is a scientifically sound program that involves monitoring plus research (e.g., contaminants of emerging concern) and produces objective information. Participating in the RMP allowed dischargers to be very collaborative on

permit-driven monitoring requirements and helped more clearly communicating with the Regional Board about what the management priorities are.

Ken Schiff: There are four things all participants across all program areas of the Bight Program get in common: 1) Holistic picture of the environment. For example, all dischargers know a lot about their individual discharge, but little about the environment as a whole. 2) The regional program provides context and focus and also allows exploring new opportunities and issues without needing permit requirements in place. 3) Training and education, both formal and via exposure to other experts. 4) The biggest advantage of participating is communication and interaction with peers and regulators and cross-communication among the various interest groups.

Kevin Buchan: The Bay RMP has continued to accomplish its goals, and is valuable for the regulated community. It now is an instituted program and at the same time there is a good process in place for prioritizing projects, for deciding what projects go forward and what projects don't. Everybody at the Steering Committee gets an equal vote, including the Regional Board, even though the Regional Board could leverage its authority. The budget is prudent and funded projects are justified. The RMP budget provides predictability to the regulated community.

Joe Gully: I concur that there is lots of value in participating in a RMP from a discharger perspective. Collaborative regional monitoring provides a good platform for exchanging information and can be a very powerful tool for addressing management priorities.

Dave Williams: The Bay RMP was a regulatory requirement, which in itself is not desirable from a discharger perspective, especially if it is a cost factor. The Bay RMP involves considerable investment by the participants and these funds need to be budgeted. However, ratepayers value the Bay as a resource and the RMP provides an invaluable database.

Governance and Decision-making

What was the driver to form the RMP? How did the program evolve?

Joe Gully: The Bight Program started as an ad-hoc idea. The initial management questions were to compare our focused outfall monitoring results among agencies and with areas that were not associated with outfalls. This was the focus for the first few Bight surveys.

Dave Williams: The Bay RMP became real for the NPDES community in 1993 when Steve Ritchie, who was then the Executive Officer of the San Francisco Bay Regional Water Board, made it a regulatory requirement to participate.

Kevin Buchan: The RMP began when Steve Ritchie issued a 13267. It was easily identifiable in the Bay Area who should contribute. The 13267 orders were issued for Bay dischargers inside the regional boundary of the San Francisco Bay Regional Water Board, even though some contaminants were coming in from the Delta.

Ken Schiff: Stormwater permittees in Southern California participate in the Stormwater Monitoring Coalition (SMC), which conducts a regional stormwater monitoring program that covers 17 major watersheds. Every permittee initially had a different requirement, but they came together, started a common design, and pulled in the Surface Water Ambient Monitoring Program (SWAMP).

However, the SWAMP doesn't do any of the monitoring itself. Individual programs do their own monitoring, The SWAMP only provides the coordination of the assessments, which involves three steps: 1) front end: a comparability assessment to ensure that everybody is aligned and all participants do monitoring the same way and have comparable QA/QC, 2) information management protocols, to be able to share data, and 3) the actual assessment piece. A subcommittee of the SMC Steering Committee that is also dealing with other aspects of the program is designated to conduct assessments, but all participants review the results and SCCWRP assists as needed.

Agricultural dischargers in Southern California are being integrated into RMPs through the ag waiver program. Because there are lots of individuals involved versus an agency or municipality, it is more challenging to get momentum and has been slow going. The approach taken is that the Regional Board starts small, by coordinating monitoring in individual watersheds and pulling in all agricultural interests in the watershed.

Another example that relates to agriculture is industrial stormwater monitoring. Permittees have voiced complaints about the monitoring they are required to do and on the other side there are Regional Board complaints about the low utility of the data this monitoring produces. A new permit template being considered includes language that allows permittees to contribute to/participate in regional monitoring in lieu of individual monitoring.

Funding

How is program funding arranged and how has it been negotiated and evolved over time?

Dave Williams: In the Bay Area, the fees for the POTW group of participating stakeholders are based on load factors for four metals. This method for allocating costs amongst the POTW community was decided by the POTW community themselves as a reasonable way to split up the costs back when the RMP Program was initiated. The fee structure may have to change, because the program focus has shifted away from the four metals that were the initial focus. The budget increases by about 2% each year, which is a very small rate of increase.

Kevin Buchan: Participants belong to any of six discharger groups, which also include the dredgers, such as the U.S. Army Corps of Engineers (Corps). Budgeting for each year is based on each discharger group's own loadings. Discharger groups each have a percentage of the fees, but the groups decide how to appropriate the fee amongst their members. The fees were very predictable and increases over time have been very moderate. The RMP has worked within its budget. Nobody wants to reevaluate the fee structure, even though it is based on a historical artifact of initial interest. The fee structure of negotiated, fixed shares of the budget by group provides predictability. It seems to work.

In the Bay RMP, most contributions are not in-kind but cash. Program participation for refineries is purely fee based. Refineries merely help to fund the assessment of the Bay as a whole. There is no in-kind contribution for refineries, but it is different for stormwater.

And if you are not a funding participant, you are not making decisions.

Ken Schiff: this is the same for the Bight Program. You need to make a contribution to vote. NGOs can participate in discussions but need to make contributions to have a vote.

Kevin Buchan: NGOs do not have a seat on the Bay RMP Steering Committee but can participate in technical groups.

Ken Schiff: We have NGOs on the Steering Committee, because they contribute effort like others and are operating at the same level of technical quality as everybody else. An example is monitoring questions associated with trash and debris. Every Coastkeeper association collects data, but they also have to get certified like other participants. We maintain scientific standards of data quality and NGOs would go through the same comparability studies if they want to provide services.

Questions drive everything in RMPs down south: determine the question first (1), then the best design to answer the question (2), then engage in some horsetrading to divvy up the design (3). The horsetrading among programs in terms of monitoring responsibilities prevents duplication and creates efficiency.

Joe Gully: The funding mechanism in the Bight Program is different than the Bay RMP. There are a number of ways to contribute and most contributions are in-kind (e.g. boat time, sampling effort, lab analyses). Several program activities are getting done in-kind but outside of stated permit requirements. The program's budget is somewhat flexible and add-ons to the program are difficult to budget for because they cannot be predicted with a long lead time. For some agencies, participation is a requirement in their permit, which makes it easier to justify the costs, and provides a more predictable scope and budget.

Ken Schiff: In the SMC, the SWAMP matches the sites of permittees 1:1, in order to leverage and get more information. Note that this is not exactly leverage by the SWAMP. Stormwater permittees' sites are primarily located in municipal areas, and the SWAMP will monitor sites more upstream or away from the main sites.

Dave Williams: SFEI is always looking for cost-effective ways to do some of the analyses. Larger POTWs bid on providing services and therefore get some of their fees back by providing analytical services.

Kevin Buchan: SFEI is leveraging the RMP by applying for additional grant funding.

Adam Olivieri: Supplemental grants through SFEI are not a given. The SFEI board gets involved because it needs to make sure a grant is consistent with the overall objectives of the organization.

How do you ensure you get your "money's worth" back from the program?

Joe Gully: One downside of the "decentralized" monitoring approach in the Bight Program is that it can cause the scope to drift away from our primary interests occasionally. It has sometimes been a challenge to ensure Bight data are relevant to us.

Kevin Buchan: One of the initial issues we had is that we needed data for both reasonable potential analysis and compliance, which are not the same. We had lots of complaints in the beginning about participating in terms of what we'd be getting out of it. It takes time.

Initially we struggled with the way the RMP is doing the sampling and questioned what its relationship was to our NPDES permits. The answer was often: nothing. However, monitoring is so much further ahead, if you get to the point where you do monitoring that has to do with the permit and also answers questions about the health of the resource.

Joe Gully: As participants we understand that the RMP collects data that individual permittees wouldn't measure otherwise. The dichotomy of NPDES compliance vs. health of the watershed is false: the point of a NPDES permit is to maintain the health of the watershed. The RMP monitors things you wouldn't normally measure, but you need those to get the picture of cumulative impacts. The point is looking at cumulative impacts and breaking down the silos of monitoring information; to document the changes, results, and the impacts.

Participation

What were the major hurdles for your constituency to participate and benefit from the program and how have they been overcome?

Joe Gully: We are still required to do our own routine monitoring, so we now do both, core monitoring and RMP participation. A factor that made our participation easier is that we had a cost-reduction in our own efforts by removing stations and parameters that didn't provide much value and reduced the monitoring frequency at some sites.

Coordination

How do you coordinate with other monitoring or assessment programs?

Adam Olivieri: One example is our own stormwater monitoring versus RMP monitoring. The Bay area has a regional stormwater permit and some of the requirements are covered by the RMP, but there are additional stormwater monitoring activities going on. We (BASMAA) leverage funding for the RMP and split the cost of ambient monitoring with SFEI. The individual stormwater programs monitor the nontidal reaches within streams, rotating the monitoring through the streams, and the RMP covers the saline reaches and waters of the Bay, but everybody is using the same quality assurance/quality control (QA/QC) and data formatting standards, so that the datasets can be combined.

Monitoring for the Bay area stormwater permits is done in lockstep with the RMP and all objectives and management questions in permits are tied together with those of the RMP.

Monitoring by the stormwater programs is done to evaluate permit compliance and the Bay RMP provides the umbrella for ambient monitoring, special investigations, and applied research. More specifically, the RMP manages Bay monitoring, does the synthesis of data for the Bay, and conducts special studies in the watersheds. For example, the loading work is done through the RMP. Stormwater fees in the RMP are split based on population and loading factors. The coordination for monitoring in the watersheds is run through BASMAA and done through the individual programs.

Joe Gully: this is similar to southern California, where permittees do some monitoring through the Bight Program and some on their own.

Ken Schiff: Whether in the regional ocean or a stream, there are three models for special studies: 1) make it a mutual priority, 2) run with it individually under the auspices of the RMP to give it more validity, and 3) get somebody involved from the outside. Number 3) is usually a win-win that works out for the academics brought in as well as for the program participants.

Kevin Buchan: We do essentially the same in the Bay RMP and we also have collaboration with other agencies and call it piggybacking. For example, when the USGS goes out and does a, b, and c, we ask, “While you’re out there, would you mind doing d?” and we add d and get a lot of value for a small amount of money.

Program Operation and Management

What is the relationship/interaction between the oversight group (Steering Committee), the implementing entity (JPA, consultant, other nonprofit), and staff (Regional Board, consultants)?

Dave Williams: SFEI as an independent science organization plays a key role in the Bay RMP as the implementing entity.

Adam Olivieri: Even though the umbrella organization is SFEI, it is the RMP Steering Committee who generates the [Bay RMP multi-year plan](#). SFEI staff briefs the SFEI Board on projects, but decisions are made at the Steering Committee level.

Kevin Buchan: Program management by SFEI in the Bay is paid for by participant contributions to the program. SFEI is also doing a lot of the monitoring and this has been a valuable arrangement. For example, Lester McKee’s group is going out sampling runoff during storm

events, even if that requires going out in the middle of the night on a weekend. We have a budget item for Lester's group to sample key events and an emergency fund. Use of the emergency fund for events that are not planned requires Steering Committee approval. The Steering Committee decided to provide extra funding from an emergency fund to augment these activities during a record wet year.

RMP operational decisions are not SFEI Board decisions.

Ken Schiff: This is similar for the Bight Program. There is the SCCWRP commission that is comprised of Regional Board Executive Officers etc. and oversees SCCWRP's operations but it is completely hands-off in terms of decision-making for the Bight Program, which is up to the planning and steering committees of the program. The committees are made up of those people who know the management issues, people like Joe Gully. Technical committees, which are the hands-on people, are the next level of governance. Planning committees ask for their recommendations. Initially, we had a program-wide planning committee, now we are delegating more to the workgroups. We also have an advisory group that gives early input.

Kevin Buchan: This is similar for the RMP, where the participants on the Technical Review Committee (TRC) and the technical workgroups decide if a project goes to the Steering Committee for funding. We set up an evaluation process through workgroups and TRC. All decisions happen at the Steering Committee level; but projects go through planning and technical committees and are evaluated through a process.

Ken Schiff: From a research science perspective, the Bight Program is boring to us SCCWRP scientists. SCCWRP gets value through all the add-ons and special studies. We almost dropped out of the program, but there was resistance by LACSD, the Regional Boards, and others, who said the Bight Program needs SCCWRP and asked themselves: how do we keep it interesting for them?

Kevin Buchan: A key function of the Bay RMP is to foster a collaborative environment among the Steering Committee and all the subgroups. This requires lots of collaboration with SFEI, since they are doing the work that needs to get done.

Ken Schiff: I was about to say that part of SCCWRP's role is to challenge the status quo.

Are TAC chairs / members paid or not and how is their participation organized and managed?

Adam Olivieri: We get inside and outside review, for example, by inviting experts in certain areas to participate in technical groups. Committee members and program participants are not compensated out of the RMP budget. The exception is when top experts in a field are brought in from somewhere. They receive an honorarium and travel cost compensation.

Kevin Buchan: The Bay RMP works as a huge brain trust and lots of different groups and experts want to participate. Individual organizations pay their own staff to participate. People are not compensated by the program for participating on committees; it's part of their own job requirements to participate and/or a discharger group pays for their own representatives, the exception being outside peer reviewers who are paid honorariums. We provide some stipends to compensate for their time.

Data Use

How is the data used that is produced by the RMP? Can you provide examples?

Adam Olivieri: Data are used to evaluate compliance with permit requirements.

Dave Williams: We are using RMP data in a regulatory context. POTWs in the Bay Area continue to do some individual receiving water monitoring, but they are mostly relying on the RMP for meeting their compliance monitoring requirements for receiving water.

The purpose of the Bay RMP is to inform management decisions. Priorities come from upcoming managing decisions the Regional Board will be making and/or related information needs. For example, RMP data are used for TMDLs and site-specific water quality objectives.

Criteria to evaluate potential RMP elements are whether they (1) address relevant NPDES permitting requirements, (2) support policies and decision-making, and (3) address scientific information needs

An example is the issue of nutrients, which are a concern because there are indications that the future Bay may be at risk for eutrophication. The San Francisco Bay Nutrient Management Strategy is a voluntary effort that was initiated through the RMP to have science drive regulations.

Joe Gully: Doing the first regional survey of the Bight allowed for comparing our outfall area results within the bigger regional condition context. We learned that water and sediment quality near our ocean outfall is comparable to the Bight as a whole.

Kevin Buchan: RMP data is used and evaluated in a way that impacts TMDLs and other regulatory issues. If RMP data show we have a problem in the watershed, but it's not originating in the watershed, we have discussions with regulators.

Monitoring

How are monitoring locations and frequency selected? Was there any “proving” the location was the right place to monitor?

Kevin Buchan: The original monitoring in the Bay was in fixed locations, but the RMP went through a technical review and has since evolved to have rotating stations. One example of the discussion about stations is that the initial monitoring locations of the Bay RMP did not correspond to locations the refineries, for example, would have picked for background characterizations for their own purposes. Changing the sampling approach from fixed to rotating stations was a good move.

Adam Olivieri: We struggled with this issue. There were many educated people involved and still it took 10 years to sort out the stations and the quality of the data and the staff training for everyone to be comfortable. Then eventually the dischargers became more comfortable with the use of RMP data for regulatory purposes. We now use one set of data and it is an asset. We can now all agree on the data to use: here's the dataset, plus some supplemental info, for example San Jose, Palo Alto, Sunnyvale have been doing some individual studies, and here's the data analyses we want to do.

Wrap-up

What did you learn? What would you recommend? What would you do differently?

Joe Gully: One of the mistakes to avoid is to decide on the monitoring/management questions when people that ought to be involved are not at the table. A few years back the Los Angeles Regional Board added a requirement to our permit to implement the Santa Monica Bay Restoration's Comprehensive Monitoring Program. POTWs were an easy target for contributing to this effort, but we insisted that language be added that said we would only participate in monitoring those habitats where we have the potential for impacts, but not for assessing habitats like sandy beaches that we have no potential to impact. The agencies associated with the stressors in those habitats such as stormwater and beach managers were not at the table.

so to this day, none of that monitoring has been implemented. Make sure the right players are at the table. The RMP language for our NPDES permits is not specific but our required monitoring should be related to where discharger impacts may be.

The primary stakeholders--dischargers and regulators--need to stay engaged. Participants need to develop very clear objectives and stick to them. Either you need to stick to them or, if priorities change, change the objectives in a process where everybody has an equal vote.

Dave Williams: The information gained through the RMP is better than what would be the result of everybody doing individual compliance monitoring. East Bay Municipal Utilities District (EBMUD) contributes \$200-260K per year. This is not a small budget effort, and EBMUD's receiving water monitoring wasn't that large to begin with, so it wasn't cost-neutral for us in the beginning. But the investment goes toward a very valuable, science-based program.

Adam Olivieri: There isn't much of a state share in funding the Bay RMP. That is something the Delta RMP could push.

The 3 Cs of the RMP approach are cooperation, collaboration, and communication. The Bay RMP's multi-year planning approach helps us looking ahead and thinking about what are we going to accomplish in 5 years. You will also need collaboration and communication on the back end with regulatory agencies, the other participants, policy deciders, and so forth. Patience is also necessary.

My advice is making sure to have the staff to make all that work when developing questions.

Joe Gully: Regarding the lack of a stronger funding base in the Delta in comparison to other regions and how to adapt: this can be dealt with by using representatives of vested industry groups as appointees to committees and workgroups and making sure they are engaged and knowledgeable.

Adam Olivieri: If you see the RMP being structured like a pyramid, there will be challenges with staffing all the committees, if you don't have expertise and resources for all aspects of the program. Some workgroups are ad-hoc. Using the Bay RMP as an example, you can also use certain resources through a larger group where interest exists and expertise is available, such as BASMAA or BACWA, but the appointed individuals need to know that they don't just represent, for example, EBMUD; they represent a group of small, medium, or large dischargers, etc. and need to also give feedback and have to report back to the group. It's an assignment.

Kevin Buchan: We also have SFEI that does a lot of the work for the Bay RMP. Think about how you want to structure the program, whether to have a group such as SFEI in charge or do all the detailed administration, operations, and management yourselves.

It is also important to have an evaluation process. Things change, and management questions change. First you want to have the overarching questions, and then have deeper ones you want to try to accomplish. They don't have to be complicated. Periodic reviews kept the Bay RMP fluid and helped participants not to get stuck on the initial requirements. For example, the planning cycle includes a 5-year program review.

You can't just draw on the Bay Area model and replicate it in the Delta. You have to decide what works for you. Start small, for example by smaller watershed groups throughout the Central Valley coordinating with each other. If you are doing receiving water sampling, you could bring that into the RMP. Resource sharing is worthwhile. And you'll need the Regional Board to make a push, but agriculture has been bullet proof in terms of regulatory leverage. One suggestion for agricultural groups would be to maybe just start coordinating with each other.

Ken Schiff: My programmatic advice is to start small with regards to the questions you are going to tackle. Know what the benefit is for each group. Only pick one topic or question and go from there. For example, when the Bight Program started, there were at first only 12 agencies involved. Now there are more than 100.

And here is a fresh perspective: you have already gotten over the biggest hurdle and you have gotten people together. Now it is just a function of people figuring things out. It is amazing how things have evolved over 10 years from no regulation for agriculture to the agricultural monitoring that is done now. The Delta RMP will be easy in comparison.