



RMP Sources, Pathways and Loadings Workgroup Meeting
 May 23, 2023 09:00 AM – 3:00 PM

MEETING SUMMARY

1.	Introductions and Goals for This Meeting	09:00
2.	Information: SPLWG Stakeholder Perspectives	09:15
3.	Information: Strategy and Management Questions Review and Upcoming Update	09:35
4.	Scientific Update: Watershed Dynamic Model (WDM) Development to Support Watershed Loads	11:00
5.	Scientific Update: Stormwater Monitoring Activities	11:40
6.	Summary of Proposed SPLWG Studies for 2024	12:45
7.	Discussion of Recommended Studies for 2024 - General Q&A, Prioritization	1:30
8.	Closed Session - Decision: Recommendations for 2024 Special Studies Funding	2:20
9.	Report Out on Recommendations	2:50

Attendees

Name	Affiliation
Alicia Gilbreath	SFEI
Amy Kleckner	SFEI
Bonnie de Barry	SMCWPPP
Chris Sommers	Santa Clara County Program, EOA
Craig Jones	Integral
Daniel Lee	Geosyntec
David Peterson	SFEI
Diana Lin	SFEI
Don Yee	SFEI

Gerardo Martinez	SFBRWQCB
Jay Davis	SFEI
Jennifer Dougherty	SFEI
Jon Butcher	Tetra Tech, Technical Advisor
Kayli Paterson	SFEI
Kelly Moran	SFEI
Kevin Huniu	City of Portland
Kyle Stark	SFEI
Lester McKee	SFEI
Lisa Austin	Geosyntec
Lisa Sabin	EOA
Lisa Welsh	Geosyntec
Luisa Valiela	EPA Region 9
Martin Trinh	SFEI
Paul Salop	Applied Marine Sciences
Pedro Avellaneda	SFEI
Richard Looker	SFBRWQCB
Rob Carson	MCSTOPPP
Robert Budd	CDPR, Technical Advisor
Seteney Bozkurt Frucht	SFBRWQCB
Steve Corsi	USGS, Technical Advisor
Tan Zi	SFEI
Tom Jobs	Independent, Technical Advisor
Tom Mumley	SFBRWQCB

1. Introductions and Goals for This Meeting

Jay Davis welcomed attendees to the 2023 San Francisco Bay Regional Monitoring Program (RMP) Sources Pathways and Loadings Workgroup (SPLWG or WG) annual meeting. He gave a brief overview of the RMP, which focuses on addressing Management Questions. All workgroups are currently updating their Management Questions with an overall goal of updating the RMP's Multi-Year Workplan.

The goal for the meeting was to prioritize Special Study proposals that in total ask for \$400k in funding. Past funding for this workgroup is around \$300k, so this WG was tasked with prioritizing and editing proposals. There were two other proposals being presented at this meeting that would not compete for Special Study funding, and the WG was tasked with evaluating them for technical soundness and whether they align with the goals of the WG.

2. Information: SPLWG Stakeholder Perspectives

Richard Looker, representing the Water Board, and Chris Sommers, representing storm water agencies, gave an update on the regulatory process from the past year. They gave an overarching view of the reasoning behind efforts in this WG, giving context to the Management Questions to frame the discussion about revisions to those questions this year.

Richard began by saying the challenge in recent years is that we're in a transition period between legacy contaminants and CECs. There are three broad classifications of pollutants that we are trying to deal with simultaneously: legacy contaminants, CECs, and sediment. The SPLWG Management Questions are over a decade old. They were formulated with legacy contaminants in mind. It's time to revisit them and make sure they're robust, flexible and comprehensive to deal with all contaminants of focus for this WG. We need to follow the concepts included in MQs, but need to adjust them.

Chris discussed priority information needs. There are still information needs for legacy contaminants both at the parcel (which properties or buildings need abatement or controls?), and to get better estimates of loading at watershed and regional scales to inform regulatory decisions and tell us how well we're managing. Data for CECs are at a much less refined, lower resolution scale. We are able to apply knowledge from work on legacy contaminants to monitor and manage CECs. Sources can be a geographic area, and also a material or product in use. It's important to determine how to regulate them with policy at the state or federal level, and with many environmental agencies. The main focus is on the stormwater pathway, and less on wastewater and air, which are also discussed. We actively try to understand new issues before they become major water quality issues. That has not been the typical approach in managing contaminants, so we are unique in many ways.

Tom Mumley noted that this WG has been primarily focused on urban stormwater. We've pushed the envelope with what's required in permits for municipalities. There is overlap when putting legacy contaminants behind us and transitioning focus to CECs. There is a

lot of support from wastewater stakeholders, although they are not here today. We need to figure out the balance between all stakeholders as we continue to push the envelope. We benefit from collaboration from municipalities and the RMP team, and have gotten more efficient with communications. There is a challenge of how far the RMP goes relative to municipality (funder) responsibility.

Luisa Valiela agreed with Chris and Richard's summary. She highlighted things the EPA is focused on such as revisiting assumptions for legacy contaminants, for example the air deposition pathway for PCBs, as well as questions surrounding material testing. Jay Davis suggested that the PCB Workgroup is the best forum for technical questions regarding PCBs. Chris proposed to have discussions about trading information, the trajectory of work by municipalities and regulators, and identifying information gaps to better gather or share data. Setenay said she had been coordinating with Richard, Luisa, and Tom M. to have a meeting in the fall with Chris and others.

When asked if the Hg TMDL might be revisited in 2030, Tom Mumley said, "yes."

3. Information: Strategy and Management Questions Review and Upcoming Update

Jay Davis and Alicia Gilbreath presented on the update. The group then discussed the revisions to each Management Question.

MQ1

Old question: What are the loads or concentrations of Pollutants of Concern (POCs) from small tributaries to the Bay?

Proposed revision: What are the sources, pathways, and loadings of contaminants and sediment to the Bay?

Chris Sommers said it was sufficiently broad. Luisa liked the revision, but asked if there was any concern about making the MQ too broad by just saying "contaminants"? Richard Looker didn't see a downside or risk of it being too broad. The bigger risk is being too narrow. Tom Mumley asked how microplastics would fit in. Are they a contaminant? The word "contaminant" is associated with direct impacts on human health. Based on Water Code definitions, "pollutant" is broader than "contaminant". Chris agreed that "pollutant" is a better word for this purpose. "Contaminant" has implications for beneficial use, too. Jon Butcher noted that the term "pollutant" has a specific definition in the Clean Water Act that should be considered, but it is still in line with the purpose of this question.

Setenay Bozkurt Frucht noted that sediment is a pollutant under the Water Code. Chris suggested the word "sediment" remain because it can be a pollutant and resource. Rob Budd asked if sediment is too broad, and whether the group is focused on sediment-bound pollutants. Alicia said the group is interested in sediment and deposition and its impacts on the health of the Bay. Including all aspects of sediment would be in support of the Sediment Workgroup. Chris added that they tried to address needs beyond pollutants for broader understanding of ecological health of the bay, although his

doesn't fit with the RMP's historic contaminant focus. They have worked to make sure the WG thinks about sediment as a resource. Jay added that sediment supply for marsh restoration is of interest in the region and for the RMP. Tom Jobes said he supports keeping sediment as a separate item. He gave an example that on the Florida coast, excess freshwater can be considered a pollutant.

MQ2

Old question: Which are the "high-leverage" small tributaries that contribute or potentially contribute most to Bay impairment by POCs?

Proposed revision: Which are the highest priority sources and pathways of contaminants that adversely impact or potentially adversely affect the Bay's environmental quality?

Setenay suggested changing "contaminant" to "pollutant." All agreed.

Alicia asked if sediment needed to be called out. Richard suggested using "pollutants" and having a footnote that explains what that means, and include sediment in that footnote. Clarify that we care about it as a resource. The idea is to reduce wordiness in the Management Question. Tom Mumley said the footnote idea was good.

Alicia said in the past "Pollutants of Concern" was thought of only as PCBs, when it also included Hg, so everyone needs to be on the same page when we define "pollutants".

Tom M. didn't like the term "highest", which could ignore other high priorities. He suggested changing that to "high." Tom M. noted that this question focuses on what causes adverse impacts, so this is not about the beneficial aspect of sediment. Luisa Valiela agreed with Tom M. that "sediment" is not needed here because the premise is related to Bay impairments. She asked if we are trying to keep the Management Question broad for pollutants that are or potentially are impacting the Bay. If that's the case, it shouldn't say "highest priority" at all. Or, are we using this to prioritize what we can use funding for when it comes to Bay impairments? Richard responded that there is management value for getting information for ranking sources, pathways, and loading. How do we rank watersheds? We want to attack areas that have the highest loading with our limited resources. He said there was nothing wrong with mentioning priority here. Managers want information to guide where to start. Luisa thought the old question was better for that purpose. Chris recalled why they went away from the old question. He said the term "leverage" has a management implication, and not only is it a priority, but actions can be taken to address it. For CECs the actions are to be determined. It could be high-priority, but we may not know what to do about it. He was supportive of changing "highest" to "high."

Chris then said that he thought "environmental quality" was broad, and wondered what that gets at (beneficial uses?). If sediment isn't being considered as a resource, then we need to focus on pollutant impacts. Richard said that "environmental quality" was a more generic way of dealing with the concept of impairment. There could be situations where we're dealing with a pollutant without an established impairment, but we could see a trend of worsening environmental quality.

Richard added to Chris's note on "leverage" versus "priority." Leverage is a feature of the source or pathway (size, location), and includes the concept of a relationship to beneficial use. For CECs, we don't know about leverages, and might just be looking at sources. "Priority" can encompass the kinds of work we'll do for the range of pollutants we're evaluating. It doesn't specify beneficial use, but doesn't preclude that.

Jon Butcher responded to multiple points made above. He said that "highest priority" is redundant. Just say "priority." He also supported changing "contaminants" to "pollutants." He noted that the Clean Water Act definition of pollutant explicitly includes sediment. He then asked why we don't we just say "beneficial uses" because that includes impact on biota, human health and anything else that impairs environmental quality.

Ultimately, the group agreed upon "Which are the priority sources" to begin the question.

Alicia asked the group if they would be okay with replacing "environmental quality" with "beneficial uses." Richard thought that was okay. He had avoided that because it is a regulatory term.

Don asked if we address sediment in any other Management Questions besides MQ1. He wanted to be sure it was getting due consideration in each question. Jay said sediment will be explained in a footnote. Tom M. said that we're pushing the envelope of the RMP to take on sources of sediment to the Bay. It is accounted for in the RMP Sediment Workgroup, which has a broader perspective, by design. He didn't see the RMP taking on efforts to characterize sediment sources. Don suggested that sediment be taken off of MQ1 for consistency.

Lester agreed with Jon and said that brevity and accuracy is important. He was worried about footnotes. Typically, they want to get these all on one screen for presentations. Footnoting might lose information in some modes of communication. Tom M. heeded Lester's thought, and said he had no interest in seeing that footnote carried into every communication. It will be documented in the write-up.

MQ3

Old question: How are loads or concentrations of POCs from small tributaries changing on a decadal scale?

Proposed revision: Are levels of individual contaminants or contaminant classes changing over time in the sources, pathways and loadings? What factors or management interventions have contributed to the change?

No discussion, all agree on the wording as long as "contaminants" is replaced by "pollutants."

MQ4

Old question: Old MQ4: Which sources or watershed source areas provide the greatest opportunities for reductions of POCs in urban stormwater runoff? Old MQ5: What are

Proposed revision: What are the most effective management actions that can be implemented in the region to address pollutant pathways and sources, and where should they be implemented to have the greatest impact?

Chris suggested removing the word “most,” and Tom Mumley agreed.

Tom Jobes noted that the second part of MQ3 seems to overlap MQ4. He asked if the second part of MQ3 needed to be there. Jay said that MQ3 is more about trends and MQ4 is more about forecasting. Alicia said they are linked. Tom J. pointed out the overlap for discussion: Richard said MQ3 has factors or management because there can be non-management factors that contribute to change. The two questions are distinguished by time. All questions are related. There could be activities that fit in one of these questions better than the other, so they’re useful.

Chris suggested that the word “impact” be changed to “benefit.” Jay noted that adverse impact is in MQ2. Seemed to be agreement on “benefit.”

The strategy update outline will be sent out in mid June. Early September will be the next Core Group meeting. Jay welcomed everyone to continue to think of these questions. This was a major step forward.

4. Scientific Update: Watershed Dynamic Model (WDM) Development to Support Watershed Loads

Tan Zi introduced the progress update on the Watershed Dynamic Model (WDM). David Peterson presented updates to the new land use layer used in the WDM and general changes with this update. Kyle Stark presented ongoing efforts to optimize potency factors using water samples with known drainage areas. Next steps include source area inventory and representation, Green Stormwater Infrastructure (GSI) data collection and effectiveness simulations, and completing a draft report in the winter. Tan proposed that they move forward with the interim MTC land use data rather than wait for MTC to finish their work on an unknown timeline. He also proposed to merge the 2022 and 2023 reports into one. Tan then briefly introduced the integrated watershed strategy.

Opening the discussion, Jon Butcher expressed that the team seems to be on a reasonable path. He suggested that they might need to do their own QA/QC on the interim land use data. Rob Budd and Steve Corsi agreed that the approach looked good.

Tom Mumley raised a concern about the extra effort required to model every contaminant in both the particulate and dissolved phases, when the desired end result is total loading. Don responded that it is best to keep the phases separate because we don’t know how CECs behave, and that gives us flexibility and may prove critical in identifying pathways. Jon mentioned that it’s important to simulate both particulate and dissolved phases separately. For particle reactant pollutants, one major source can be storage of such pollutants in streambeds and sludge in pipes, which is not necessarily attributable to current loads but can be remobilized. Lester noted that we do have the

RWSM that is capable of modeling total concentrations without separating dissolved and particulate and that might be the chosen model for some pollutants moving forward.

Tom M. then discussed source area analysis. He wanted to be sure we can adjust land use categories where we have knowledge that land use doesn't match, or where sub-parcel scale source area information exists. What caught his attention was that the Transportation class was comparable to Old Industrial. Not all road surfaces will be like Old Industrial land use. For instance, CalTrans has a particular type of pavement that retains sediment well, and may do the same for PCBs.

David mentioned that an issue with MTC land use was gaps between roads and other parcels, and those Right of Way gaps were grouped into the Transportation class. He suggested a separate meeting to discuss the details.

Chris Sommers agreed we need a separate meeting for this discussion. He provided thoughts on the potency factor analysis. The current method assigns a point to underlying land use and assumes that land use is the contributor to the pollutant sample. It's not that simple. Samples on a street or near a catch basin could have contributions from neighboring land uses. We need to be more creative than simply overlaying our samples on the land use layer. Transportation is tough because it is not mutually exclusive from all other land uses around it. Other than caulking or expansion joint issues, roadways themselves are not generally sources for PCBs. They are transported by wind, water, or vehicles onto the roadway. This needs further discussion.

Second, the data were collected over a long time period and the current method is not considering time. We should discuss whether old data are the same as new data, and how land use may have changed between sample dates. He also hasn't seen the new MTC data layer, but they found issues with the ABAG version in the past.

Lastly, in previous models source categories and buffer areas were our best guesses at the time. We now have a lot more data that we should use to support potency factors rather than making predictions of where source areas exist. We can now associate monitoring data with known sources. Then we can model those areas and calibrate those areas. Source areas should be considered as a different land use class. We do need to have a series of meetings to talk through this with the advisors being involved.

Tom M. emphasized that we need to work together to get MTC's final data, not the interim data. He had reservations about simulating potency factors rather than developing them empirically. As long as there is some sort of validation we can work with that especially if we can make adjustments. Tom M. asked the team to proceed with caution on the Greening Stormwater Infrastructure effectiveness task because available data have a lot of variability.

Jon responded to the source area concerns. Analysis should not simply use the point on a map, but try to characterize the contributing flow area. He also mentioned that roads have a lot of transformers on them so they are sources in some places. Chris said that dirt samples do not have an associated drainage area, so some way of buffering could help get a better representation of what it depicts.

Richard Looker discussed the issue of time in the analysis. Conceptually you are attempting to define the potency factors for a land use category. There is uncertainty with the variability in data and applying those samples to a large study area. There will inevitably be mismatches between the data and land uses. He asked if data could be weighted based on confidence that a sample represents a land use correctly (possibly giving more weight to more recent samples). Kyle said that assigning weights for the importance of individual data points can be done. Chris asked why the analysis can't use land uses assigned to a time frame close to each sample. Tan said that we only have two data layers for urban land use: ABAG 2005 and the new MTC Interim data.

Luisa asked in the chat: what land use data category would we expect the following to "show up" under? Airports, rr lines, PGE infrastructure. Or expect these land use cover data to not cover these properties per se?

Don replied to Luisa, some of these classifications will probably need verification and QC since at a microscale their uses changed for some of them between maps, when there was no/minimal underlying change in function (some areas around Oakland and Hayward airports had odd changes for example).

5. Scientific Update: Stormwater Monitoring Activities

Alicia gave an update on stormwater monitoring activities over that past year. Jay encouraged the group to see the presentations sent out with the agenda package. Chris thanked the stormwater team for the hard work.

6. Summary of Proposed SPLWG Studies for 2024

Presentation 1: Pedro Avellaneda presented the first proposal on integrated modeling and monitoring. Tom Mumley asked for more information on monitoring. Pedro said with this proposal, monitoring efforts will sample two storms for three watersheds. Alicia noted that last year a two-year study was proposed, and this covers the second year of that study. Tom M. asked that the background be documented in the proposal. Of those three watersheds, Guadalupe and Walnut Creek are large and mixed land uses with units of interest. Corte Madera is primarily residential. He asked if sampling two storms was adequate. Alicia said Guadalupe was included to extend the temporal series of samples, and the other two for spatial extension of modeling verification. This was a two year study, but two storms at a site aren't enough. They were proposing two to three years so that two storms each year would result in four to six samples. Richard asked for that explanation to be included in the proposal. Tom M. said this explanation shows that they'll improve data richness.

Lisa Austin asked if funding for the final phase 1 report was included in the \$261k for phase 1 and \$121k for phase 2. If the final phase 1 report should be in year 2, that would be helpful for budget distribution. Tan said it's split between year 1 and 2. There's an option for just one report at the end. The initial intention was to have an annual report, but from a project perspective having one report is better.

Presentation 2: Jennifer Dougherty presented on the proposed pilot study using a detection dog team for source tracing of PCBs in Old Industrial areas of the San Leandro Bay (SLB) watershed. Jon Butcher was interested if the Washington Department of Ecology was using the program in remedial efforts. Jennifer said Seattle Public Utility is using it in two situations, for identifying unknown sources and when having difficulty identifying specific contributing areas at known source sites. Tom Mumley said these dogs are used on a regular basis, and essentially the proof of concept has been proven. This proposed project would be to validate it in the Bay Area, but seems that it would work here.

Tom M. raised the concern about whether Oakland and Alameda County participate and take results and put them into action. Lisa Austin noted that the Alameda County Clean Water Program and the City of Oakland was not notified about this project. They have collected and provided a lot of street dirt data in this watershed. The San Mateo program has been thinking about doing a study with the same organization. John Conan at EOA is taking the lead on that. BAMSC is interested and willing to collaborate, but it requires a conversation prior to developing a study like this in a local jurisdiction. Chris asked why the study area was selected and if there is an option to change the location to where partners are more supportive. Alicia said the SLB watershed was attractive for a number of reasons but it can be moved to wherever collaborating partners are interested.

Lisa A. said this study could be useful for evaluating representative land use types rather than specific areas where we know a source exists. That would be a more interesting question: can a dog be used to identify other areas other than heavy Old Industrial. For instance, a business park with a lot of broken concrete filled with caulk. We haven't been able to evaluate those areas in more detail. Jennifer said Jasper has been used to detect caulk on buildings in urban centers. Alicia said there are a number of study opportunities here. They were interested in SLB because the Elmhurst watershed draining to SLB has elevated levels, but no identified source. Ultimately, collaboration with stakeholders about location is needed.

Lisa A. asked about the long-term vision for doing this work. Would a team be brought in from Seattle, or could local dogs be trained? Richard pointed out that it's been piloted, and it works. What we don't know is the scalable factor. How fast can we survey an area of a certain type? We need a pilot to focus on the operational aspect of this, not to prove the dog can do it. If successful, we would like to scale up to potentially screen thousands of acres of Old Industrial area using grant resources to do that. He suggested the group establish a way to use grant funding to possibly hire this team for a bigger contract. Alicia said this dog has uniquely been trained for PCBs, and this is an established program that can train more dogs. Jennifer said in the 2020 pilot study they were able to cover 16 blocks within 2 hours with prep work that included determining the age of buildings so they could bypass buildings newer than 1980. The average number is 8-12 blocks per 2 hours and the dog needs a break. The ideal conditions were about 4 hours of work per day.

Tom said the request for early release is unusual and that it's very early. The steering committee doesn't meet until Aug. 10 and doesn't adopt a budget until November. The

project couldn't begin until the third week in August if everything is all set up to fall into place.

Presentation 3: Alicia presented a proposal for year 2 of the tidal area remote sampler pilot. Tom Mumley said that one sample per site seems too low and suggested two samples at four sites. Don said it depends on priorities. Testing is partly focused on the mount dislodging or other damage. In that case, a second event would not be much different unless it varies in size. The study is not focused on getting a representative sample of the watershed, but rather about testing the situations the method can be used.

Chris asked if the variability between sites is of greater importance than the variability between storms. Don said the difference between sites is more important. We know it works in some areas. If there is a failure, we want to try that again to adjust for that failure. This will allow flexibility to move toward more variety. Don said 5 sites were sampled last year, and this would be an additional 8 sites for a sample size of 10-13. However, issues at Belmont Creek might require further testing at that site. It's a highly energetic system and we may want to try different mounting systems there.

Tom M. asked why analysis of Hg would be needed when this is thinking ahead to CECs. Alicia noted that dropping analysis of samples would save \$20k-\$25K, but Chris said that every opportunity to take samples should be taken. Don said testing the sampling mechanisms is important because there will be similar challenges with CECs.

Presentation 4: Alicia presented a general proposal to purchase remote samplers. Jay reminded the group that in the closed session they should make a decision of whether this is technically sound and a good use of RMP funds.

Presentation 5: Tan Zi presented the general proposal for the WDM maintenance. Chris Sommers had logistical questions about how the planning and feedback process will work. Would it involve developing a workplan and then getting budget approved, or developing the workplan after budget approval. Tan said that proposed tasks with the associated budget would be proposed at the beginning of each year, then at the first quarter TRC meeting, it would be reviewed for approval.

Tom Mumley thought the maintenance spending was premature, with development of the model ongoing. \$50k in 2024 seemed too early. The Steering Committee will want documentation on the reason for starting in 2024. Conceptually, Tom M. is on board.

Jon Butcher asked if Tan had modified the LSPC code from EPA and Tetra Tech versions? Tan said no, he is using the EPA version. Jon said they may need to pursue some updates to code because it doesn't run fast, he's concerned the code is difficult to understand and it doesn't have good internal documentation. It is important that someone other than Tan knows that code.

Tom Jobs noted that the hydrology and sediment models are complete, and it is worth starting maintenance on those. He asked what would be done in the year 3 reevaluation.

Tan said the hope is that every 3 years the model doesn't need to be recalibrated, but the modeling results would be verified. Every 5 years it is good to think about recalibration. That's why the proposal has more frequent reevaluation than recalibration.

Jon asked where the update to land use fits into the model maintenance. Tan said that once there is a final release, versions need to be compared to see if there is a big change. If there is substantial change, the model may need to be calibrated. This fund could be a buffer to fund that effort. Lester added that they hope to have land use updated in incremental years, which would be good for modeling, but challenging to fund efforts involved in that process. MTC has discussed frequent updates, but those efforts are unknown.

7. Discussion of Recommended Studies for 2024 - General Q&A, Prioritization

Tan offered an option for adjusting the budget for the monitoring & modeling proposal. To reduce the \$261k first year budget, it could be possible to move some modeling budget for the sensitivity analysis into the second year. Most modeling tasks can happen in the second year. With that change, we could move \$40k to the next year for roughly \$220k in year one and \$160k in year two.

Tom Jobs asked if there is synergy or competition between the tidal sampler deployment pilot and the purchase of remote samplers. Alicia said there is synergy because they involve the same type of sampler. The deployment of tidal remote samplers does not include funding for improvements of the sampler, just testing deployment scenarios. Tom J. asked if it is possible to do one instead of the other. Alicia and Don said, yes. They are not reliant on one another. Kelly noted there is no guarantee that the remote sampler will be the SFEI Mayfly. Sampler selection for the CECs monitoring will be made in consultation with the special advisory team for the development of the RMP's stormwater CECs approach. It will depend on the outcome of sampler blank testing and container adherence testing. We are currently awaiting lab results for these tests. There is a real possibility that we need to use different containers and/or different samplers for at least some CECs families.

Rob Budd asked about the level of effort needed to expand the current modeling and monitoring framework to other chemicals. He asked if the same level of monitoring would be required or if modeling could be done based on physicochemical properties. He was concerned the model is so specific to Hg and PCB that it can't be applied to other chemicals. Pedro said the work in the proposal is specifically for PCBs and Hg, but expanding to other contaminants is possible and it will depend on different mechanisms involved. For those associated with sediment, this model will work. Tan said the uncertainty analysis in this proposed project will result in uncertainties for PCBs, Hg, flow, and sediment simulations, and the last two will be useful for modeling other contaminants. He said it is yet to be determined if the potency factor method will be used for a given CEC. Once we settle on methodology for simulating CECs, we can discuss leveraging this model for those contaminants.

Steve Corsi said he liked the autosampler proposal. Field testing seems to show that they work in the field. The main question is whether there will be contamination in the sampling process. He asked if the primary concern is contamination or logistical. Don said there are some logistic concerns. So far this has been tested in small urban watersheds. There are questions of whether we need to go beyond that for things like underground channels. The question of contamination is relevant, but the flow regimes that the sampler can survive also need to be determined. Don was confident that more than half the time deployment will go well, but extreme flows and other scenarios have not been evaluated. Steve asked that if contamination is found, are they open to change materials? Don said they are open to changing almost every component in the sample train. If sample containers are switched to glass, steps need to be taken to protect against breakage, which is feasible. Kelly added that deployment scenarios so far show from the deployment capability perspective, it would work for the CECs program.

8. Closed Session - Decision: Recommendations for 2024 Special Studies Funding

Those involved with the proposed Special Studies left the room while the rest of the WG prioritized projects.

9. Report Out on Recommendations

Chris Sommers reported the results of the closed door session to the entire WG. These recommendations will go to the Technical Review Committee for prioritization of all projects across workgroups, then to the Steering Committee for final funding decisions.

The highest priority was the integrated modeling and monitoring strategy. The group took Tan's suggestion of moving the sensitivity analysis and reporting into year 2. The second highest rating was the tidal area remote sampler pilot project. The group went back and forth on how many sites to include, but ultimately would like to fund the full site number, but allow the TRC to adjust if needed. Finally, the group decided to recommend funding the PCB detection dog project at \$25k, however the project needed better scoping. The scope of the project could shift to work needed in development of a grant proposal to get higher levels of funding. Reasons for this include uncertainty with municipal partnerships, the handler and dog, and whether the pricing for Aroclor samples is correct or if that is the appropriate methodology. The group suggested possibly moving over the proof of concept in the Bay area and taking steps to fully launch the project. If the RMP funds are in the right place, this WG would like to fund development of a more robust proposal.

Regarding the integrated modeling and monitoring proposal, Jay requested more details on the uncertainty analysis and ability to utilize the model for other contaminants. The WG advisors will look at revised proposals before they are sent to the Technical Review Committee.