



bay restoration commission

STEWARDS OF SANTA MONICA BAY

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MEETING OF THE SANTA MONICA BAY RESTORATION COMMISSION TECHNICAL ADVISORY COMMITTEE

Contact: Lia Protopapadakis (310-216-9826)

Date: Tuesday, April 19, 2011

Time: 9:30am to 3:30pm

Location: Loyola Marymount University, Malone 455

Note: Items for staff follow-up are underlined.

1. Welcome and Introductions

Rich convened the meeting at 10am, followed by introductions around the room.

2. Order of Agenda

Rich noted the new meeting format. There were no changes made to the posted agenda.

3. Public Comment (on non agenda items). None

4. Approval of Meeting Minutes

Lia noted that the December meeting was a joint meeting with the MRAC and that they would have to approve their portion of the meeting separately. The group approved the TAC portion of the December meeting minutes.

5. Reports from the Chair, Subcommittees, and Staff

Rich had nothing to report from the Governing Board. Dan had nothing to report from the MRAC (last meeting was the joint meeting in December). Lia reported that staff submitted 3 proposals for MPA Baseline Monitoring; one would involve the oversight and participation of TAC and MRAC members. Lia previewed potential June agenda items, including review of TAC membership and noted that the September and December meetings will be scheduled in July. Shelley reported that SMBRC expects our annual EPA grant to return to funding levels seen in 2009.

6. Discuss and Review Eligible Proposition 84 Project Proposals

After a brief overview and description of the summary documents provided by Jack, the TAC began discussing proposals. A summary of the discussion of each proposal is below including a summary of the final recommendation to staff and the Governing Board based on technical merits.

Monitoring

The University Park project sparked a broader discussion about monitoring for all Prop 84 projects. The TAC requested that in the future, presentations on monitoring results from previously funded projects be placed on the agenda prior to proposal review to facilitate project review relating to the effectiveness of methods and techniques. They expressed a desire to assist SMBRC with developing a framework for monitoring that would provide

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consistent methods, questions, and metrics for these projects. Noted benefits of doing this were:

- Reduce the monitoring burden on any one project, by making it possible to combine monitoring data from several projects using a similar technique.
- Monitoring data would be compatible with all data collected by the State for similar projects.
- Use monitoring data on Low Impact Development in the 2015 State of the Bay Report.

They also expressed a desire to assist staff with an analysis of completed projects' monitoring reports to improve knowledge of the effectiveness of different methods and techniques. Noted benefits of doing this were:

- Assess projects for their potential to fill gaps in understanding of effectiveness of certain techniques, especially useful for innovative projects.
- Better compare projects employing different techniques based on the “water quality improvement return on the financial investment”.

Rainer mentioned that SFEI worked with SFEP to do something similar. SMBRC needs to identify the overarching management questions relevant to Santa Monica Bay. TAC would like to hear more about SFEP's work in this area [at a future TAC meeting]. Staff will use SFEP's work as a starting point to develop monitoring priorities and framework. Staff will compile data from finished projects. The TAC will assist staff with an analysis to inform development of monitoring framework and understanding of technique effectiveness. Once data are analyzed, SMBRC could host a symposium or workshop for cities, which could use the results when developing new projects.

City of LA – University Park

This project would install 35 Rain Gardens in impoverished neighborhoods surrounding USC to capture and infiltrate urban runoff. Noted strengths of the proposal include the potential benefits to a disadvantaged community, the good application of low-cost retrofits, and the ability of this area to infiltrate to groundwater used for drinking water. Noted weaknesses include lack of information about the expected performance of the BMP, lack of community support demonstrated (from residents and USC), and lack of information about how trash and non-native/invasive grass species will be addressed. Overall the TAC agreed this proposal was technically sound and would deliver water quality benefits. However, they noted that the City should demonstrate community support for this project before it is funded.

City of LA – Old Oak Road

This project would install 10-14 bio-swales along Old Oak Road to capture, treat, and infiltrate contaminated run-off from horse stables on private property along this street and to improve beach water quality at Will Rogers State Beach. Noted strengths of the proposal include the use of the City's standard plans for bio-swales, visible demonstration of LID, and potential for addressing a well documented hot spot for bacteria exceedances during wet weather. Noted weaknesses include the use of public funds to treat run-off from private property and the appropriateness of the standard swales for this application (larger volume of solids than average urban runoff). Other issues discussed were:

- The validity of the City's belief that horses were causing either the bacterial exceedances or a human health risk. SCCWRP's epidemiological studies of the impact to human health caused by non-human fecal bacteria currently underway appear to show an impact, albeit less of an impact than caused by human fecal bacteria.



- The appropriateness of using public funds to address this issue. There is no mechanism to force private property owners to install BMPs on their property. If there is horse manure on the streets too, as in Palos Verdes, this would address that problem too. Either way, property owners should be educated and existing knowledge of managing runoff from horse stables should be passed on to property owners in addition to public BMPs.
- The monitoring described in the proposal is insufficient. Monitoring should be done at the swale outlet, not at the beach where the signal from the project would be indistinguishable. This presents a good opportunity to assess the effectiveness of the City's standard bio-swale plan. However, if the swales were not designed to handle the runoff in this area (larger volume of solids) then it is not a good test case for the standard swales.
- The educational component is weak. It should be improved (as match), drawing from existing educational material developed in other areas of the Santa Monica Mountains. The project could be conducted in a phased fashion where the education is conducted first followed by monitoring, then the structural BMPs followed by more monitoring. This would enable a comparison of the effectiveness of the education vs the effectiveness of the structural BMPs.
- The curbs and gutters. Concerns were raised about the amount of Prop 84 money going to curbs and gutters over bio-swales and whether the curbs and gutters would direct water to the swale or to the storm drain or both. The possibility of using the municipal storm water permit to continue monitoring in the long-term was raised.

Overall the TAC thought this project had merits and could be funded if it addressed key concerns raised.

City of LA – Gilliam Park

This project would capture rainwater in the Baldwin Hills area and use it for irrigation at Jim Gilliam Park. Noted strengths of the project include clearly stated goals that address pollution reduction, water conservation, and downstream habitat protection. Noted weaknesses include water to be captured appears to run off of existing open space not nearby residential areas, the expense of the technology-heavy approach for minimal water use savings (would still need to irrigate in summer), and does not discuss monitoring. Other issues discussed were:

- Planning is still conceptual. What is the efficiency of this approach over time? How does this tie to the larger Trail Project?
- Treating run-off from open spaces. Water open-space within watershed should go to Ballona Creek and wetland. Bio-swales to treat runoff from surrounding residential areas may be more appropriate. Open space is good opportunity for low-tech solutions, but this is high tech.

Overall the TAC thought this project needed to be improved before they could recommend it for funding.

West Hollywood – Infiltration

This project would construct street infrastructure improvements on La Brea Ave. to improve runoff infiltration and is part of a larger project to enhance La Brea Ave. Noted strengths of the project include a good opportunity to test BMPs along commercial zoned and highly visible roadway and good monitoring plan. Noted weaknesses include size of project may not result in measurable benefits and the larger project components (additional and non-native plants, wider



impermeable sidewalks) are inconsistent with infiltration goals. Other issues discussed were:

- Effectiveness. The effectiveness of the project may be compromised by design features in the larger La Brea improvement project. Not much thought given to low impact development goals. Opportunities for pervious surface exists, but not included. Hard to support non-native and high maintenance plants. Partnership with groups that understand LID better is needed.
- Budget and Match. Appears to be room for the match to be increased. Okay to spend more for innovation if elements to make the proposal replicable in other parts of the city. Prop 84 funds can only go to the water quality features.
- Site selection. The site has a lot of potential because the street is commercial and arterial.

Overall the TAC thought this project was not appropriate for funding, but that because of the potential of the site, staff should work with West Hollywood to develop a better proposal in future Prop 84 rounds.

Santa Monica - Storm Drain Infiltration

This project would design, construct, and monitor two sets of storm drain retrofits that will pre-treat and infiltrate stormwater (wet and dry weather runoff) by using a drywell BMP. One set would convert a storm-drain catch basin. The other set would convert a storm-drain manhole. Noted strengths of this project include transferability, innovativeness, and adaptability through monitoring. Noted weaknesses include additional match required and questionable site selection (Pico-Kenter is diverted to the SMURRF). Additional issues discussed were:

- Effectiveness. Project may work better as a groundwater recharge project as infiltration in this area would restore historical water budget. The groundwater level may interfere with the sub-surface infiltration pipes.
- Site Selection. Dry-weather runoff from this site is already diverted to a treatment facility so the water quality benefits of this project at this site are smaller than they would be at another location where dry-weather runoff is not already treated (ie. Santa Monica Canyon).
- Maintenance and Monitoring. Will maintenance of sub-surface BMP be an issue? The monitoring could be improved. Is the location tied to the monitoring plan?

Overall the TAC thought this project was technically feasible, but that remaining questions about site selection and project goals needed to be clarified before it is granted funding.

Manhattan Beach – Infiltration

This project would construct sub-surface infiltration trenches underneath the beach at the 28th Street storm drain to improve wet-weather beach water quality at a Clean Beaches Task Force priority beach. Noted strengths of this project include providing long-term benefits, addresses wet-weather flows, and targets a priority area. Noted weaknesses include the cost, no demonstrated support from Beaches and Harbors and LA County Flood Control District, potential negative consequences from having bacteria laden and constantly wet sub-surface sand, and lack of feasible and clearly articulated monitoring plans. Additional issues discussed include:

- Effectiveness. Similar project completed in Hermosa Beach almost one year ago. Information on benefits to water quality and bacteria levels in the sand from Hermosa Beach is necessary to evaluate this proposal.
- Coordination. Past experience proves Beaches and Harbors to be extremely resistant to projects like this.



- Site Selection. More information is needed. How deep is the trench? Will the beach be nourished in the future to prevent trench exposure? What is the water table level on site? Will sea level rise impact the infiltration?
- Incentives. The proposal states that if this project works, they will reconsider 2 planned upstream solutions. This project may still be necessary to treat wet-weather runoff even if all upstream LID projects are implemented.
- Monitoring. Because project is innovative, good monitoring will be critical.

Overall the TAC wanted to see monitoring results from the Hermosa Beach pilot, and wanted answers to questions about trench depth, beach management, and appropriate permissions before recommending this project on its technical merits.

Calabasas – Catch Basins

This project would install 95% post consumer recycled plastic trash catch basins in all storm drains that discharge to Las Virgenes Creek. Noted strengths of this project include cost-effectiveness, clear project goals, and city experience with this BMP. Noted weaknesses include lacking information on the number of screens to be installed and the budget includes operation and maintenance that is not fundable under Prop 84. Other issues discussed were:

- Community Support. Potential problem getting HOA's to agree to install catch basins on private property.
- Long-term Benefit. Unclear whether the catch basins will last 20 years.
- Effectiveness. The site locations surround the entire development, so should have a big impact.

Overall the TAC thought this project had merits and should be recommended for funding.

Malibu – Catch Basins

This project would install trash capture devices in up to 50 drains that discharge into the Point Dume MPA. Noted strengths of this project include the benefit to the MPA and ASBS and uses an effective method. Noted weaknesses include the extremely high cost per unit, no minimum number of units to be installed is identified, the selected site may not address stated priority trash generating areas. Other issues discussed were:

- High Cost. Cost is high compared to Calabasas proposal and the prevailing rate, even for dealing with unusual configurations. Perhaps they could combine resources with Calabasas for a discounted rate.
- Site Selection. The stated problem is at public parking lots, project should be done there. No technically sound justification given for selected site. Logic is clear with Calabasas, but not with Malibu. Experience says the biggest trash inputs are Topanga and Malibu Creeks and the beach itself, not Point Dume. Should conduct a hot-spot analysis to prioritize location of catch basins.
- Community Support. Compared with Calabasas, Malibu has no community support.

Overall the TAC thought that this project used proven technology, so it had technical merits. However, concerns about the cost per unit, the number of units, and the prioritization of sites need to be resolved before funding should be awarded.

West Basin Municipal Water District – Water Star Schools

This project would install indoor and outdoor water conservation devices in 10 schools throughout their service area. Noted strengths of this project include providing multiple benefits (water conservation, runoff reduction, and education), transferability, and quantifiable impact on water conservation. Noted weaknesses include site selection related to their

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Board rather than high priority run-off issues, support from school districts not demonstrated, primarily a water conservation project, they missed opportunities to include LID features in the retrofit, and the life of project does not meet Prop 84 required 20 years (if they promise to replace and maintain the devices, it would meet requirement). Other issues discussed were:

- Landscaping. Selected vegetation not practical in a school setting.
- Education. This could have a huge impact. It should include information on water quality benefits of decreased outdoor watering and rain gardens.
- Site Selection. The schools they select must be in Santa Monica Bay watershed. Prioritize high run-off areas. Prioritize areas where education of students will have maximum impact on parent behavior.

Overall the TAC thought this project had technical merits if it better addressed the water quality aspects of the project.

Sea Lab – King Harbor

This project would install a system to remotely monitor water quality and provide resources to prevent future fish die-offs resulting from low dissolved oxygen in King Harbor. Noted strengths of this project include potential for enhancing deepwater estuarine habitat. Noted weaknesses of this project include the lack of any description of the system they intend to install, does not involve existing monitoring efforts already underway in King Harbor, and the stated community support is from businesses not the boaters in the harbor. Overall the TAC thought this project was not described in enough detail to evaluate its potential and did not recommend it for further consideration.

LA County – Oxford Basin

This project would implement several modifications to the Oxford Basin to improve water quality in Marina del Rey, restore flood control capacity in the basin, restore habitat, enhance recreational opportunities, improve maintenance capability, and address localized flooding on nearby streets. Noted strengths of this project include benefits to recreation and aesthetics, targets a priority site, greatly improved proposal. Noted weaknesses include the lack of modeling data to demonstrate effectiveness of proposal, potential for stratification of fresh and salt water, the expense, and the potential for continual dredging to maintain benefits. Other issues discussed were:

- Effectiveness. If the velocities created by the berm and the adjusted tide gate regime are not high enough, this arrangement could increase stagnation. Freshwater entering from one end and salt water from another could create stratification and increased algae growth.
- Maintenance. It appears the project would require a lot of management.
- Cost. They are asking for 83% of SMBRC's Prop 84 allocation.

Overall the TAC thought this project at the potential to be technically feasible, but should only be recommended for funding pending the results of modeling data and at significantly less cost.

7. Member Comment

Rainer announced that SFEI was hosting their annual State of the Estuary Conference on 9/20-21.

8. Announcement of Next Meeting Date

The next TAC meeting will be held at LMU on June 2, 2011 at 9:30am. Location to be determined.

9. Adjournment

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Rich adjourned the meeting at 3:15pm.

Attendance

TAC/MRAC Members

- X Rich Ambrose (TAC Chair)
- X Steve Bay (TAC)
- X Dave Caron (TAC)
- Mas Dojiri (TAC)
- Linda Fernandez (TAC)
- X Rainer Hoenicke (TAC)
- Jenny Jay (TAC)
- X Burt Jones (TAC)
- X Karen Martin (TAC)
- Dan Pondella (TAC)

Staff Members

- Lia Protopapadakis
- Guangyu Wang
- Shelley Luce
- Jack Topel
- Sarah Woodard

Public Members

- Dana Murray (HtB)
- Eric Miller (MBC)

