

Summary of Informational Interviews

Conducted for the

Regional Resilient Infrastructure Roundtable

FINAL

Prepared for:



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1. Introduction

This Summary of Informational Interviews was prepared as part of the Urban Greening Bay Area grant project, which is funded by Region IX of the US Environmental Protection Agency (USEPA) Water Quality Improvement Funds, awarded to the Association of Bay Area Governments (ABAG), a joint powers agency acting on behalf of the San Francisco Estuary Partnership (SFEP), a program of ABAG.

The Bay Area Stormwater Management Agencies Association (BASMAA) is a member of the team headed by SFEP that was awarded the grant. BASMAA is leading the development and implementation of a Regional Resilient Infrastructure Roundtable, to develop policy solutions to integrate transportation, climate, and water quality investments. The Roundtable process will convene meetings with local, regional and state, and federal agencies, elected officials, private sector and non-profit partners to identify barriers to the funding of multi-benefit infrastructure projects, and identify examples of integrated solutions. Following the Roundtable meetings, BASMAA will lead the development a Roadmap for future action to implement policy solutions. The development of the Roundtable is guided by the Roundtable Task Team, which consists of representatives of USEPA, SFEP, the San Francisco Bay Regional Water Quality Control Board (Regional Water Board), BASMAA, and the City of Oakland. Horizon Water and Environment (Horizon) is leading a team of consultants to support the development and implementation of the Roundtable.

As part of the planning phase of the Roundtable, interviews were conducted with policy-level staff members from agencies with that are involved in, or knowledgeable about, the funding of infrastructure projects with multiple benefits, such as water quality, climate change adaption, climate change mitigation and active transportation.

2. Organization of this Document

This document provides a listing of the agencies interviewed, followed by a summary of key findings from the interviews, notes regarding agencies that may be contacted in the future, and a list of items that may warrant further research as a result of the informational interviews. Appendix A provides a detailed record of each interview.

3. Agencies Interviewed

A total of 26 individual staff members from 18 agencies were interviewed. For some agencies, more than one individual was interviewed, as part of a group interview. The Roundtable Task Team prioritized these individuals for informational interviews, based on the interviewees' knowledge of and/or potential to influence regional, state, and federal funding policies.

Table 1 lists the agencies that were interviewed alphabetically by agency name. Interviews were conducted by staff members of Horizon, its subconsultant Geosyntec, or a member of the Roundtable Task Team. The name of the interviewer is included in each detailed interview record, in Appendix A. The names of interviewees are not included.

Table 1		
List of Agencies Interviewed		
	Agency	Abbreviation
1	Association of Bay Area Governments	ABAG
2	Bay Area Air Quality Management District	BAAQMD
3	Bay Conservation and Development Commission	BCDC
4	California Department of Transportation (Caltrans) Division of Environmental Analysis	Caltrans DEA
5	Caltrans Active Transportation Program	Caltrans ATP
6	California Natural Resources Agency	CNRA
7	State Coastal Conservancy	SCC
8	Department of Water Resources	DWR
9	Office of Planning and Research	OPR
10	Metropolitan Transportation Commission	MTC
11	San Francisco Bay Area Urban Research Association	SPUR
12	State Water Resources Control Board	SWRCB
13	Strategic Growth Council	SGC
14	Federal Highway Administration	FHWA
15	United States Environmental Protection Agency	USEPA
16	City of Oakland Department of Public Works	Oakland DPW
17	City of Oakland Department of Transportation	Oakland DOT
18	San Francisco Foundation	SFF

4. Key Findings

Key findings from the interviews are summarized below, beginning with suggested topics for the Roundtable, followed by a discussion of key findings that cut across all types of project benefits considered in the interviews, then a discussion of key findings for each major category of benefits. Each bullet point identifies in parentheses the name of the agency(ies) that offered the information.

4.1 Key Topics Suggested for Roundtable

- 1) Address the meaning of terms such as “green infrastructure,” “urban greening,” and “resilient” – which are used differently by different people and contributes to challenges for cross-sector collaboration (SCC, SGC).
- 2) Include an educational aspect in the Roundtable, to help agencies understand each other’s different objectives, and how agencies can agree upon/understand common objectives of multi-benefit projects (SWRCB, SGC).

- 3) How to measure multi-benefit outcomes (greenhouse gas reduction, water quality, etc.) from project design (CNRA).
- 4) Identifying cost-benefit of integrated projects. For example, TreePeople in LA analyzed costs-benefits and showed savings with integrated projects compared with single-benefit projects (OPR).
- 5) Opportunities for streamlining the grant process, such as assigning one agency to manage others for multi-benefit projects (OPR, CNRA, SWRCB).
- 6) Regulatory issues/limitations such as requirements for matching funds, bond accountability, or “shovel readiness” (SWRCB, SGC, DWR).
- 7) The extent to which multiple benefits are received by disadvantaged communities (BAAQMD, DWR).
- 8) Cross-sector partnerships to accomplish climate change adaptation projects identified in the Adapting to Rising Tides (ART) planning project, which have funding shortfalls (BCDC, MTC).
- 9) How urban greening is being handled by different funding agencies. The SCC, SGC, Coastal Commission, California Department of Forestry and Fire Protection (CAL FIRE), CNRA, and MTC are all involved in funding of urban greening projects (SCC).
- 10) Discuss the integration of health benefits with urban greening (SGC).
- 11) Clarify the requirements for Stormwater Resource Plans. For example, in a multi-benefit project, how much of the project does stormwater relate to? (SCC).

4.2 Issues that Cut Across All Benefit Types

- 1) Issues such as emissions reductions, transportation, housing, equity, and climate change adaptation are the priority discussions in the Bay Area, green infrastructure only gets discussed in specific circles (SPUR).
- 2) Silos are a significant barrier to implementing multi-benefit projects, as is funding and the expectation that incorporating GI is going to reduce already strained resources for priority issues of transportation and housing (SPUR).
- 3) Recommendation for the heads of the regional agencies to meet on a regular basis and have conversations, similar to the meetings held by the heads of state agencies, and federal agencies (ABAG 1).
- 4) Local jurisdictions have to navigate many complexities to develop multi-benefit projects; they need clear frameworks on how to assemble funding resources from different sources (ABAG 2).

4.3 Climate Change Adaptation

- 1) The Adapting to Rising Tides (ART) project, led by BCDC, is starting to implement projects over the next 3 years; it has a 10-year program of implementation. (BCDC).
- 2) Implementation of ART projects will require partnerships with key cities on how the cities want to proceed. Coordination will be complex; legislation is needed to frame objectives, identify an entity with responsibility, etc. (MTC, BCDC).
- 3) BCDC anticipates private foundation funding will be needed for ART projects (BCDC).
- 4) More information is needed to determine the extent to which stormwater treatment facilities provide climate change resiliency benefits, such as water supply and lowering peak flooding in an extreme event (SCC).

4.4 Urban Greening

- 1) SCC is discussing a potential urban greening conference in December 2016. Roundtable planners and conference planners should stay in touch regarding synergy between the two events (SCC).
- 2) Moore Foundation and the California Endowment may fund urban greening projects. Foundations appreciate a focus on the health angle of projects, such as heat island effect and air quality (SCC).
- 3) MTC's analysis of projects for Plan Bay Area (noted below in Section 4.4, item 1), does not require urban greening, but tends to advance urban greening (MTC).
- 4) As part of the One Bay Area Grants (OBAG), MTC is partnering with the SCC on Round 2 funding for priority conservation areas (PCAs), which will include urban greening (MTC, SCC).

4.5 Active Transportation

- 1) In Plan Bay Area, MTC uses a multi-benefit analysis to identify transportation projects for long-range funding. Projects to promote biking, walking, transit oriented development (TOD), public transit perform well (MTC).
- 2) OBAG grants administered by MTC for short-term funding require the receiving jurisdiction to have a circulation plan or complete streets plan that includes bike and pedestrian use of the roadway network. This tends to advance urban greening (MTC).
- 3) MTC is partnering with SCC and The Nature Conservancy (TNC) to aggregate mitigation of the impacts of transportation projects, particularly for impact to sensitive habitats. This will result in large-scale, better quality mitigation, and will keep the mitigation in the Bay Area (MTC).
- 4) The Caltrans Active Transportation Program (ATP) uses transportation funding, and therefore focuses specifically on transportation. The only non-transportation benefit

that is addressed is recreation, for a small amount of funding dedicated to recreational trail projects (Caltrans ATP).

- 5) ATP funding may be used to fund basic landscaping, and could provide enhanced landscaping for up to 5 percent of the project cost. Enhanced landscaping includes items such as pavers and non-shade trees (Caltrans ATP).

4.6 Water Policy

- 1) It would help to have tools that would assist funders in demonstrating that stormwater capture facilities are in the right place to provide the best benefit (SCC).
- 2) Infiltration or harvest and use are more beneficial than treat and release projects. Grant applications do not always give a clear explanation of the benefits of stormwater treatment projects (SCC).
- 3) Roundtable planners should track the synergies between the Roundtable and SWRCB's STORMS strategy Project 4b, which seeks to eliminate barriers to funding the use of stormwater as a resource. There may be a Project 4b symposium in early 2017 (SWRCB).
- 4) To comply with TMDL requirements throughout the state, Caltrans may provide funding to local projects that address TMDLs through cooperative implementation agreements; these funds can only be used for water quality purposes (Caltrans DEA).
- 5) So far, Caltrans DEA has funded five local projects through cooperative implementation agreements; all are in Southern California, and none are green street projects (Caltrans DEA).
- 6) Caltrans DEA will likely fund a project in the San Francisco Bay Area next; the amount of available funding varies year-to-year (Caltrans DEA).

5. Future Agency Contacts

As a result of information provided during the interview process described in Section 4, Key Findings, staff from the following state agencies may be contacted, as part of planning specific sessions to be included in the Roundtable:

- 1) Division of Financial Assistance at the State Water Board –This Division has taken a broad approach across the water sector to align different areas. The contact person has been identified as a potential Roundtable participant (OPR, SWRCB).
- 2) SGC – This agency managed a previous program to pull funding programs together under an umbrella program, assisting grant applicants in identifying the programs they should apply for. Although this program did not continue, SGC staff involved in the program could provide information on issues to consider in the coordination of funding programs. (OPR).

The other individuals, agencies, and organizations identified by interviewees will be added to the Roundtable stakeholder list and the list of interested parties, if they are not already included on these lists. Some may be contacted individually, as needed, during development of specific Roundtable sessions. It is anticipated that all interested parties will receive notification of the two large, inclusive Roundtable meetings that are planned as the initial and final Roundtable meetings, and the availability of the Final Roundtable Report.

Appendix A

Interview Records

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INTERVIEW RECORD

Association of Bay Area Governments (Interview 1)

Part 1: Interview Summary

Interviewer: Joshua Bradt, San Francisco Estuary Partnership
Interview Date: August 22, 2016

Interview Highlights

- EPA Brownfields Program is part of a larger land re-use/re-utilization program (Question 1).
- EPA provides Technical Assistance programs for: local jurisdictions to secure grants; communities and non-profits; and financing (Question 1).
- Standing conversations/coordinating meetings with regional entities (like what is done at State and Federal levels) would be helpful. This would ideally lead to joint meetings from entities at all levels of government. (Question 1).

Part 2: Interview Questions & Responses

Topic: Multiple Topics

Question 1. What Topics would you like to discuss with policy-level staff from other funding agencies for the work you do?

- Mark Shorett and I got an EPA Brownfields grant, effective Sept 1, 2016 for \$0.5M to assess potential brownfield sites along the East Bay Corridor. We will be specifically looking at Oakland, San Leandro, Hayward, and unincorporated Alameda Cty. It's a brownfield grant but it's really part of a larger land re-use/re-utilization program at EPA. **So it's the brownfield grant and technical assistance, because they [EPA] actually want the land to be re-used, not just looked at, but cleaned and re-used. And so they are trying to connect all of the dots between identifying, assessing, cleaning up, and the community development to develop a vision.** We [ABAG] have an advantage because we have a group of jurisdictions which have signed on to this initiative to say:
- **"Yes, we want to identify sites that will be impactful, so that once we get the development we are looking for it will have a concentric, reverberating effect**

throughout the community. We want it to be a draw for public and private capital. We are willing to put in the public capital to attract the private capital.”

- So, I feel like we again have an advantage with having some committed jurisdictions. Our job is to really bring the community into this. So they know what we are doing, are bought in—they are our partners as well.

Follow-up Question: Is community engagement an element of the brownfields grant?

- Yes, it is. It's one of our six tasks. I am really appreciating the EPA right now. I did not know they had as much technical assistance. **They have [Technical Assistance] for the jurisdictions, their Center for Creative Land Reuse (C-CLER) really helps jurisdictions to get the grant, to go thru the Phase 1 and Phase 2, and clean up. Then EPA has technical assistance for the community to work with the non-profits to bring them together to have a voice at the table to help shape communities. And then they offer technical assistance around finance.** I can't want to work with those folks cuz they are helping communities pull it all together so it isn't so cumbersome, so laborious. I am really impressed.
- Leah invited me to a meeting of the Federal Executive Somethings or Another (heads of HUD and EPA and all those federal agencies), on Sept 9. They get together on a regular basis. I get the vision of the Strategic Growth Council, which is the secretaries of the agriculture, business, transportation...and I am really impressed with that group of people who get things done. [Interviewee will forward meeting info.]
- When I came to ABAG 15 years ago I was disappointed that the heads of the regional agencies did not on a regular basis meet and have conversations. Why not? To know it happens on the state level, to now find out it happens on a federal level—I hold out hope for the regional level.

Follow-up Question: Is that what's missing, a regional conversation?

- I think so, but that's just my opinion.

Follow-up Question: Collective regional funding agency conversations?

- As an example, at one of the last SGC meetings I went to, the Chair was like: “we were like we have these big massive plans and policy structure. No one's ever taken our plans and over-laid them to say how are the same? How are they different? Where is there conflict?” And they got a consultant to get that done. I was amazed. Why wouldn't regional agencies do that as well?
- It will be interesting to see how the **ABAG/MTC impacts this work, because the work still needs to be done no matter who does it. The Water Board, the Air District, BCDC, I would even say the Coastal Conservancy, I mean, these folks with a regional presence and impact over regional planning on a regular basis need to address these issues.**

Question 2. What agencies would you like to partner with to achieve more widespread implementation of multi-benefit projects?

- I know it's asking way too much, but I'd like to see our federal partners, our state partners, our regional, and our local jurisdictional partners having this conversation because the problems are too big for any one of us to solve on our own. And I don't know why that's not crystal clear to people. The problems are massive, they're huge, and if we are going to make a dent in them—we need all of those players playing together, or singing together from the same hymnal, the same page, in the same key.
- You and Jennifer worked so diligently on trying to marry green streets and complete streets. Its like, I was always encouraged to hear Alex Coats from EBMUD say whenever we are going to work on a project we are going to contact everybody and say {interviewee sez: "hey, we are ripping it up.} "Hey, Whatcha got? What goes in?" Let's do this all at one time. I am encouraged. I know folks get it. They know their budget is limited.

Follow-up question: Any specific partners you want to partner with?

- Um, no. I feel like Mark & I will know more once this project launches and once we get off the ground. We are going to meet with our Program Officer at EPA on the 1st. She's already bringing in some folk who really look at community development holistically. So, I think we will know more as we sort of move along and advance in this process.

Follow-up question: Are you and Mark partners on this project at large. How do you guys work together?

- Well no. The corridor project is his baby. Dana [former Resiliency Planner at ABAG] has an umbrella under that, which is the resilience piece. So she's talking to those folk on that resilience piece and mitigation. They fit together nicely. And then I come in with this brownfield assessment. Again, because it does fit. You want development, and that development is going to advance a lot faster if developers feel like this corridor has been assessed, and there are some clean sites. They know; you've just provided them with a certificate that says this area that you want to build up on, is clean. Here you go. And by the way, we have some financing.

Follow-up question: Are those sites privately owned? That the brownfields are in?

- We are going to identify. We don't know yet if they are owned by the government—if they are not superfund sites, because we can't do anything with those. Because that means [Superfund sites] that someone owns them and someone is responsible for them, someone is on the hook. But for government sites, there's EPA funding to clean that. And if it's a privately held site, where the current owner had absolutely nothing to do with contamination, there's money to help him as well. That's actually one of the first tasks, getting these 4 jurisdictions together to say what sites will have the most impacts, need the most analyses & assessment. There's the assumption that this corridor is contaminated. If it's there [site contamination] we will find it and clean it up. And move along to the next.

INTERVIEW RECORD

Association of Bay Area Governments (Interview 2)

Part 1: Interview Summary

Interviewer Information

Interviewer: Joshua Bradt, San Francisco Estuary Partnership
Interview Date: August 22, 2016

Interview Highlights:

- Existing PDA and other designations that demonstrate a framework of local commitment to sustainability and equity are critical to leveraging regional, state, federal resources -- East Bay Corridor is an example (Question 1).
- Bringing array of resources to local jurisdictions working on a neighborhood scale is complex and often requires other (regional) entities to assist and enable (Question 1).
- There are many individual elected officials and agencies who recognize and champion sustainable growth and equity strategies that whose participation would contribute to roundtable discussions -- see bold text below (Question 2).
- Need more participation and resources from the Private Sector (Question 2).
- Communicating clear messages to the general public is a challenge (Question 3).
- Huge housing challenge in the Bay Area: 500,000 jobs created since 2010, only 38,000 new housing units added (Question 3).

Part 2: Interview Questions & Responses

Topic: Multiple Topics

Question 1. What Topics would you like to discuss with policy-level staff from other funding agencies for the work you do?

- EPA, HUD? As it pertains to green infrastructure and sustainable growth? I think we have a good framework with PDAs and Corridors (East Bay Corridor and Grand Boulevard Initiative).

Follow-up Question: Thru PDA designations?

- Yes, we have them designated. Since there is strong commitment from local jurisdictions to support sustainable, equitable growth in those places—can we have EPA, HUD, Transportation, and Homeland Security focus in those areas to bring resources to support the production of housing, retention of housing, and the infrastructure that supports that. So, I think from kind of a comprehensive regional perspective, from a complete communities approach to what we are doing in the Bay Area, I see all those other agencies supporting the effort of GI as it relates to places where we are putting a lot of energy so it isn't so spread out. But there is a **framework, not only of places, but a framework of commitment, which is how we can make this work best.**

Follow-up Question: Are those resources typically in the planning realm or in the implementation realm?

- Both, both.

Follow-up Question: Are they linked up enough for cities to capture opportunities as they come? Are they bundled in a way the cities can use them to maximum effect?

- Um, I think there is an interesting convergence at the regional level from federal agencies...(I assume you are talking primarily about state and federal agencies)...um, to integrate different elements to support more sustainable and equitable growth. So there is an effort to connect housing funds with transportation funds with infrastructure resiliency funds. So, I think that is helping a lot.
- However, when it comes to neighborhood scale, when it comes to local jurisdictions being able to step in to that platform to gather those resources it is quite complex and we make things very difficult. So, I feel like your role and my role as a regional agency is to facilitate that access and to bring those pieces together. **The local, small jurisdictions, in particular, and even large ones, have to navigate so many complexities in order to support that intersection that I feel that's where we need to bring clear message, clear frameworks, and a better understanding of how those resources converge for greater resilience, sustainability, and equity.**

Follow-up Question: Bringing them to those city staff? Those implementers?

- Yes, at the end of the day, that's where things get implemented. The cities are the ones that will be approving the projects, handling the infrastructure improvements, adopting ordinances to support different adjustments, different strategies. So that's where they [resources] have to land.

Follow-up Question: I agree. That's what I have seen with some of my projects, where I have to unwind things for city staff to bite off smaller pieces to make a project go. Need to stop briefly...

Question 2. Who would you identify as influential people to talk with or include in the roundtable in the Bay Area, representing regional and state organizations?

- I think the **State OPR** is definitely and important player because they are doing a lot of work, whether it is ...or the um, **Strategic Growth Council** have been very supportive of work in the Bay Area, the PDAs, the Corridors, addressing DACs. So discussing infrastructure sustainability and the intersection of that with equity is something that matters a lot. The Cap and Trade Funding for affordable housing along those lines is important.

Follow-up Comment: I didn't know Cap & Trade funding went there.

- Yes, it does and **most of it in the Bay Area went to the East Bay Corridor thanks to the work where they have seen the intersection of all those areas of planning and capital improvement work where they have seen that the cities are collaborating.** From my perspective, they see this as a place, a space, of a lot of potential because **everything gets leveraged.** A lot more. So, an affordable housing investment also gets connected to transit, gets connected to open space, gets connected to GI, gets connected...
- I think the local, elected officials – there are some key **ABAG Ex Board members that have been strong champions.** You are already probably talking to them. **Dave Pine** (*San Mateo County Supervisor, District 1*) has brought the Restoration Authority; **Julie Pierce** (**ABAG President, Clayton City Council, at-large**) is very supportive of that. **Dave Cortese** (*Santa Clara County Board of Supervisors, District 3*) in his own way, is more specifically connected to this intersection, I think he would be very interested. I think **Barbara Halliday** (*Mayor*) **from Hayward**, she has been very committed making those connections and to support the local and regional engagement which is crucial.
- I think folks in Richmond are doing a lot of work that integration of different strategies—so **Tom Butt**, the mayor. **Tom Bates** (**Mayor**) from Berkeley. Folks from Oakland--the whole spectrum – **Rebecca Kaplan** (*Oakland City Councilwoman, at-large*) and **Lynnette McElhaney** (*Oakland City Council President, District 3*) making all those connections. **Claudia Cappio** (*Oakland Assistant City Administrator*) is a real asset for making those connections with the state. She was in this position with Jerry Brown, then was the head of Housing Finance at the state level, so she has lots of expertise on housing and infrastructure that is very important and she is a very powerful bridge.
- **Pradeep Gupta** (*South SF City Council*), **chair of Regional Planning Committee for ABAG.**
- **BCDC, MTC, the Air District, all those entities.**
- I would say that the business community is interested in this. So I would say that **Ross Hancock for example** (**Silicon Valley Joint Venture**) has been very supportive of housing affordability and making the connection between the business community and infrastructure investment. **East Bay Economic Development Alliance (EDA)** brings a good perspective. They represent local business and can be helpful at integrating housing infrastructure with the business community.
- Of course, the partnership with **San Francisco.** They are usually better funded than many other cities and are ahead of the pack on many components. But there

are many areas where their engagement and collaboration with other cities would be helpful.

Follow-up Question: Are the partnerships that ABAG goes into mostly with the cities themselves or are they with other entities?

- No, I mean Homeland Security is being instrumental in the whole discussion about water resources coordination with the water districts. We (ABAG) have been doing a lot of work with the water districts, I would say primarily focused on water supply and the drought. But there are already many other components they are flagging, addressing different infrastructure elements one by one.

Follow-up Question: With the things that are getting flagged by the ABAG Resiliency Group?

- Right. So **Homeland Security is in partnership with us, in hosting the Water Summit in November.**
- **EPA**, the same thing. You have been involved with some of the brownfield grants they have provided, but also on some of the resilience components.
- **HUD** has been here. Some the folks from DC came to discuss some of these challenges with us. Their support has been more on the engagement, coordination planning than actual capital, but has been helpful and a good sign of some level of collaboration.
- **FEMA** provides a lot of support and funding. The emphasis is on the planning, research and coordination, but the reality is that the work that we do with them then triggers access to resources for local jurisdictions. So it's important we clear that work so cities are in position to access those resources.

Follow-up Question: Are there agencies you would like to be partnering with that would help get over some of the humps. Some that are hard to get to the table?

- I think that **working a little more with HUD would be important.** I think we are **already working with the Economic Development Administration**, the federal office, in the creation of an **Economic Development District (EDD) for the entire region.** So the whole Bay Area will be designated as an EDD, which would allow cities and other entities to access funding. Right now there are number of grants that community colleges or other institutions are unable to secure without this designation. So, we are working with them on that.
- I think it is **very, very important to get more engagement from the high tech sector and corporations.** We do have the **Economic Strategy Subcommittee** doing great work in inviting the various partners. But that still is a link that needs to be strengthened. We have got some engagement, a little bit—**Google got involved in funding some portions of the Bay Trail.** But what we need is larger scale of participation, collaboration...

Follow-up Question: As investment? As loans? What does this support look like?

- I think it shouldn't be too difficult to set up a grant program, or we could explore different possibilities. The first thing is for them to be at the table and to show that they care with some participation and resources.

- Now the **ABAG FAN program** is back in business and we are exploring what it can do. Maybe packaging some of the funding that may be available and inviting some of the private sector to participate. This remains to be seen.
- We do have engagement from the **Bay Area Council**, so those folks are participating, but there is still a powerful sector that is not at the table.

Question 3. *What types of situations prevent your agency from achieving even broader results?*

- I would say two things come to mind:
- **Messaging.** I think we need to be more active on social media. There is a need to explain more clearly these efforts. Whether for complete communities, the PDAs, etc—our language is too clunky and technical for the people to understand collectively what the priorities are to support healthy, equitable sustainable communities.
- 2) **Housing money** (to create and retain). **In the Bay Area we added 500,000 jobs from 2010-15, over the same period we built 38,000 units of housing.** This is a substantial challenge not only increasing homeless population, increasing conditions of over-crowding, and also displacing a lot of the population because it creates a cascade effect where housing costs gets pegged to higher salaries. So our existing communities—that we are putting a lot of emphasis on bringing more vitality, resources, and infrastructure improvements—the investments go to a very small segment of the population and the existing communities are being displaced.

Part 3: Opportunities for Additional Investigation

- [East Bay Corridor Initiative](#)
- [Grand Boulevard Initiative](#)
- [ABAG FAN Program](#)
- [Joint Venture Silicon Valley](#)
- [East Bay Economic Development Alliance](#)
- [U.S. Economic Development Administration](#)

INTERVIEW RECORD

Bay Area Air Quality Management District

Part 1: Interview Summary

Interviewer Information

<i>Interviewer(s):</i>	Laura Prickett, Horizon Water and Environment
<i>Interview Date:</i>	24 August 2016

Interview Highlights

- There are opportunities for projects funded by BAAQMD, such as bike lane projects, to incorporate urban greening – within the limits of the enabling legislation (Question 2).
- Interviewee is not aware of any collaboration between BAAQMD and water agencies; BAAQMD routinely collaborates with MTC and the Congestion Management Agency (CMA) of each county in the region (Question 3).
- Challenges to multi-benefit projects include cities' lack of resources to monitor the availability of and to apply for grants (Question 4).
- The above challenges could be addressed by standardizing and streamlining grant applications, making city staffs aware of calls for projects (Question 4).
- BAAQMD provides a lot of support to municipalities; its regional strategy is focused on the municipal level, addressing topics such as energy efficiency (Question 5).

Part 2: Interview Questions and Responses

Topic: Multi-Benefit and Water Projects

Question 1: What experience has the Air District had with municipalities incorporating urban greening or stormwater management facilities in projects funded by the Air District, such as bike lane projects?

- Interviewee did not have specific information on projects of this type.

Question 2: What possibilities do you see for urban greening, or other co-benefits, to be incorporated bicycle facility projects, or other any of the other projects that BAAQMD promotes?

- There is a huge opportunity. From Interviewee's perspective as planning director, if a city is designing bike project, the project should support urban greening, vegetation, green elements. This will make the project area more attractive, cooler. It reduces the heat island effect. If trees are planted near buildings, it will reduce the energy load in building. These are good air quality reasons to include greening in active transportation projects. However, grant programs are established in state law and have limitations. So the Air District would have to work within the enabling legislation in order to provide funding. For example the Transportation for Clean Air (Incentives) grants can only fund capital projects, and cannot fund planning.

Question 3: Are you aware of initiatives to collaborate with water agencies or transportation agencies to include climate change, water quality, or urban greening benefits in a bicycle facility project?

- Not too much collaboration with water agencies, probably not never. Pretty rare, but Interviewee is not aware of any specific examples. The Air District collaborates with transportation agencies routinely, and work closely with MTC and each county's Congestion Management Agency. Of the Transportation Fund for Clean Air (TFCA) funding that the Air District provides, 40 percent goes to the counties, and 60 is for the Air District to give out.

Question 4: What challenges have you observed in the implementation of projects that seek to achieve multiple benefits?

- The Air district does a lot of work with city staff. The staffs at cities are stretched very thin, and they may not have expertise in writing grants. They also lack time to monitor the availability of grants, and they sometimes miss opportunities. There is a need to provide support to city staff. Support could be provided by standardizing and streamlining applications, make city staffs aware of calls for projects.

Question 5: Has BAAQMD identified any needs or interest for collaborating with other agencies to on initiatives that involve multiple benefits?

- The Air District works a lot with MTC and ABAG at city and county level; these three regional agencies plus BCDC are the four members of the Bay Area Resiliency Collaborative (BARC).
- The Air District also provides a lot of support to cities and counties, because they don't have air quality expertise. The Air District fills in a gap.
- The Air District's regional strategy is focused on the municipal level, looking at vehicle emissions, energy, waste. The Air District may provide support for local plans, such as an energy efficiency ordinance.

Follow-up Question: Has the Air District worked on an energy project that involve multiple benefits, including water?

- About 8 years ago, the Air District funded an energy pilot project in the North Bay, a digester for either sewage or agricultural waste. The project was located in either Petaluma or Santa Rosa. It was not a regular grant program, but a small, one-time program the Air District developed to use some remaining money during a fiscal year.

Question 7: What topics would you recommend for agencies to discuss to help encourage and/or fund cross-sector projects with multiple benefits?

- Disadvantaged communities should be discussed. The consideration of the direct benefits or co-benefits of a project should include the extent to which benefit are received by disadvantaged communities. All funding agencies need to consider how projects will benefit disadvantaged communities. This needs to be extended to multi-sector planning and co-benefits. At least the same or more benefits should go to disadvantaged communities.

Question 8: Who would you identify as influential individuals or agencies, who should be involved in discussions of funding multi-benefit projects?

- BCDC should be involved; it is the lead on resiliency in the Bay Area, with the Adapting to Rising Tides project. Include SGC for statewide perspective and state funding.

Question 9: Could you share any success stories on partnering with other funding agencies to implement cost-effective multi-benefit projects?

- The Air District worked with state, regional agencies, cities, MTC and ABAG prepared the first Plan Bay Area. The Air District was updating its CEQA guidelines at this time. The Air District and others partnered with Alameda county supervisors to hold workshops to present information on the new requirements to local staff and stakeholders.

Part 3: Opportunities for Additional Investigation

- For questions specific to Air District funding of local projects, contact Acting Director of the Strategic Incentives Program, Karen Schkolnik
- For more information on the energy pilot project in the North Bay, contact Abby Young, who administered the grant program.

INTERVIEW RECORD

Bay Conservation and Development Commission

Part 1: Interview Summary

Interviewer Information

Interviewer: Kelly Havens, Geosyntec Consultants
Interview Date: 17 August 2016

Interview Highlights

- Discussion topics suggested (Question 3):
 - Would like to discuss overall role with regard to climate change adaptation with stormwater agencies and flood control agencies.
 - Would like to discuss funding for climate change adaptation with stormwater agencies.
 - Would like to discuss how to incorporate education regarding sea level rise/rising tides into other stormwater related public education.
- The Adapting to Rising Tides (ART) project, led by BCDC, is starting to implement projects over the next 3 years; it has a 10-year program of implementation. (BCDC).
- Near-term ART projects have funding shortfalls; BCDC would like to cultivate private foundations as a funding source (BCDC).
- Thinks public-private partnerships (largely with foundations, such as the San Francisco Foundation, rather than corporations) are important to obtain enough funding for climate adaptation projects (Question 6).
- One large challenge is the question: Who has authoritative leadership in the climate change adaptation area? Need a clear authority for climate change adaptation planning (not regulation - example: MTC is a clear authority for transportation) (Question 7).

Part 2: Interview Questions and Responses

Topic: Climate Change

Question 1: What kinds of adaptation projects would you like to see funded?

BCDC has a set of action plans adopted in their May 19 document to address sea level rise (SLR) and rising tides. Projects that are/ they would like to see funded include:

- Case studies, planned or accomplished that are scale-able and useable
 - o Teaming with Kristina Hill of the Climate Readiness Institute
- Adapting to Rising Tides Project
 - o Initiative started 4 or 5 years ago with NOAA/BCDC funding; now also have Metropolitan Transportation Commission (MTC) and Caltrans funding.
 - o First focused on Alameda County coastline looking at vulnerabilities, now expanding throughout the bay into Contra Costa, Santa Clara, and Marin Counties.
 - o Hoping to have all 9 counties and knit into Bay Area wide plan for rising tides.
 - o Funding needed: 6-9 million over next 3 years, a portion of which they have already.
 - o Anticipate that 2/3 funding will come from state/federal agencies, and will need to obtain remaining 1/3 from private foundations/organizations (also see Question 7).

Question 2: What role do you see for landscape-based stormwater capture systems to help with climate change adaptation?

- See landscape-based systems serving climate adaptation needs for a number of aspects:
 - o Stormwater Agencies important forces/players for adapting to rising tides
 - o BCDC is also recognizing upland effects and causes important and must be woven into adaptation; they are beginning to incorporate these considerations into their plans.
 - o Also see Question 3

Question 3: What topics would you like to discuss with policy-level staff from other funding agencies?

- Would like to discuss overall role with regard to climate change adaptation with stormwater agencies and flood control agencies:
 - o As BCDC develops ART projects, Stormwater agencies are critical players in Bay.
 - o Stormwater agencies are the existing agencies that are currently dealing with storm surges.
 - o Stormwater agencies not involved in rising tide issues as much as BCDC would hope.
- Would like to discuss funding with stormwater agencies:
 - o Currently BCDC has a 5-10 year plan to help adapt Bay to rising tides.
 - o Funding is a very big issue with achieving goal.
 - o Stormwater agencies could contribute a critical part of funding.
- Would like to discuss how to incorporate education regarding sea level rise/rising tides into other stormwater related public education.
 - o One role of BCDC's Action Plan is inspiring educational campaigns for adapting to rising tides.
 - One example of successful educational campaign is recycling – in this instance, the strategy was to aim the message to children.

- BCDC believes that there are opportunities for similarly targeted educational campaign for educating on rising sea levels – in this case targeted at building owners, developers, and others who must respond to new stormwater requirements.

Question 4: Who would you identify as influential people who should be involved in discussions of funding multi-benefit projects?

- Currently, BCDC's focus is at the agency level, so do not have input on individuals
- Agencies Suggested:
 - FEMA
 - Flood Control Agencies
 - San Francisco Bay Restoration Authority (considering their new tax funding)
 - Representatives from Office of Planning and Research
 - Federal agencies

Question 5: What experience have you had in trying to obtain funding from transportation or water agencies to develop climate change adaptation projects?

- BCDC has had effective partnerships with NOAA, Coastal Conservancies, and has also obtained some EPA funding
 - In all cases, the funding has been project- specific grants
- Currently, BCDC is developing partnerships with MTC
- In general, BCDC does not have great experience with aggressively applying for grants.
- BCDC unique in that it is a state agency focused in this region. Gets significant state funding, as well as some penalty funds.
 - Both a regulatory and a planning agency
- Currently BCDC is also building a relationship with the Friends of BCDC non-profit organization
 - Would serve as grant recipient for foundations and other sources which will not fund state agencies.

Question 6: What agencies would you like to partner with to achieve broader climate change adaptation?

- BCDC has partnered with:
 - Cooperative projects with ABAG
 - Climate Readiness Institute (CRI)
 - Counties (ART project)
- BCDC would like to partner with private foundations
 - Currently ART has or will obtain about 1/3 funds form state funding, 1/3 from other state funds /federal funds.
 - Would like the remaining 1/3 to come from private organizations.
 - Have not yet made much progress on this.
- Public private partnerships
 - Foundations (for example, SF foundation),

- Corporations – expect slower progress
 - Slower to publicly acknowledge what is needed to adapt
 - Corporations with significant facilities on the bay, or corporation yards at airports
- Example of effective public-private partnership: Resiliency by Design
 - Just received 1+ million from Rockefeller project (through project approach)
 - Project is integral with ART

Question 7: What are some situations that have prevented funding/partnerships:

- One large challenge is the question: Who has authoritative leadership in the climate change adaptation area?
 - There is the argument that it is BCDC:
 - However, BCDC doesn't have absolutely clear legislative authority.
 - There is also the issue of BCDC having both a regulatory role and a planning role and how those may conflict in some cases.
 - Need a clear authority for climate change adaptation planning (not regulation)
 - Example: MTC is a clear authority for transportation
- Another challenge is the difference between measures to mitigate climate change vs. measures to adapt to climate change
 - These are different areas.
 - BCDC is more adaptation focused, though understands the importance of mitigation measures.
- Another challenge:
 - In adaptation field, there are differences between “soft green” and “hard grey” solutions.
 - Both are necessary, but it can be a challenge to find which is appropriate where.
- Also disappointed about statewide CC ballot measure that will not be included.

Final comments:

- Agrees that what this project is exploring – multi-agency and multi-benefit approaches to funding and project solutions - is very important
- Sees opportunities with many agencies through public/private partnerships.
- There is certainly a need to look at solutions that have multiple benefits.
 - One example success story:
 - Seal outhaul island off the coast of Alameda – this is a seal refuge implemented to replace shoreline projects.
 - However, islands can also provide storm surge protection.

Part 3: Opportunities for Additional Investigation

- Interviewee will send BCDC plan published May 19, 2016 for reference.
- Suggests we look into LEAP – led by Nate Hoffman – Has produced a number of interesting pamphlets to address multi-agency, multi-benefit projects.
- Interviewee would like to be kept in the loop on results of roundtables.

INTERVIEW RECORD

Caltrans Active Transportation Program

Part 1: Interview Summary

Interviewer Information

<i>Interviewer(s):</i>	Laura Prickett, Horizon Water and Environment
<i>Interview Date:</i>	24 August 2016

Interview Highlights

- The Caltrans Active Transportation Program (ATP) uses transportation funding, and therefore focuses specifically on transportation. The only non-transportation benefit that is addressed is recreation, for a small amount of funding dedicated to recreational trail projects (Question 1).
- ATP funding may be used to fund basic landscaping, and could provide enhanced landscaping for up to 5 percent of the project cost. Enhanced landscaping includes items such as pavers and non-shade trees (Question 1).

Part 2: Interview Questions and Responses

Topic: Multi-Benefit and Water Projects

Question 1: To what extent does the ATP grants program seek to incorporate non-transportation benefits, such as climate change adaptation or urban greening, in transportation projects?

- Because the program uses transportation funding, it is focused specifically on transportation. The only non-transportation benefit that the program can consider is recreation, and this can only be considered for the small amount of funding (roughly \$5 million) that is specifically dedicated to the recreational trail projects. The recreational trail projects have a project purpose of recreation, rather than transportation. All other projects must specifically be focused on transportation.
- If a project disturbs an existing drainage ditch or stormwater facility, the project can use ATP funds to replace it in kind. If a project triggers a regulatory requirement to install stormwater treatment facilities to treat runoff from the project, ATP funds will pay for the treatment facilities. ATP funds cannot be used for treatment facilities that may be piggy-backed onto a project for other reasons, such as implementing green infrastructure plan requirements in a municipal stormwater permit.

- If a city uses ATP funding to build pedestrian bulb-outs at an intersection, for example, the city could use ATP funding to provide basic landscaping, or they could provide enhanced landscaping for up to 5 percent of the project cost. The guidance specifies what is considered enhanced landscaping, which includes items such as pavers, benches, and non-shade trees. Landscaping is generally limited to drought tolerant species. Interviewee advises reviewing the application form and guidance. If a landscaped area is designed as a stormwater treatment facility, ATP funds could not be used for costs for installing the project features that are not allowed under the ATP guidance.

Question 2: What challenges have you observed in the implementation of projects that seek to achieve multiple benefits?

- Caltrans has issued two rounds of ATP funding. They are now working on the third. Interviewee is not aware of multiple benefit projects being funded. Caltrans has identified a goal of doubling the amount of walking as a mode of transportation, and tripling the amount of biking by 2020. ATP-funded projects are specifically focused on achieving this goal.

Question 3: Are you aware of projects that have combined funding from water agencies and Caltrans to incorporate climate change, water quality, or urban greening benefits in a transportation project?

- Interviewee has no information on this topic.

Question 4: Would Caltrans have any interest in discussing any potential opportunities to partner with other agencies regarding active transportation or any related topics?

- Caltrans has not identified any needs or interests that would cause the ATP program to partner with other agencies. The program they have developed is working very well toward achieving the goals noted above. Interviewee has no recommendations in this regard.

INTERVIEW RECORD

Caltrans Division of Environmental Analysis

Part 1: Interview Summary

Interviewer Information

<i>Interviewer(s):</i>	<i>Laura Prickett</i>
<i>Interview Date:</i>	<i>August 16, 2016</i>

Interview Highlights

- To comply with TMDL requirements throughout the state, Caltrans may provide funding to local projects that address TMDLs through cooperative implementation agreements (Interviewee's response to talking points).
- The amount of available funding varies year-to-year. The funds available are determined toward the end of the fiscal year (around March), but potential projects are identified earlier (Interviewee's response to talking points).
- Watershed reaches have been prioritized, and the highest priority watersheds are all in Southern California; however, the relative priority of the watershed is only one factor in selecting projects (Question 1).
- A project in the San Francisco Bay Area will likely be funded next, since the program does not focus exclusively on Southern California, and the Bay Area is a key location statewide (Question 1).
- So far, Caltrans DEA has funded five local projects through cooperative implementation agreements; all are in Southern California, and none are green street projects (Question 4).
- There are examples of using a cooperative implementation agreement to fund part of a larger project, but these funds can only be used for water quality purposes (Question 4).
- Interviewee is not aware of obstacles in using these funds in concert with other funding sources. One city attempted to use these funds as a match for another grant; Interviewee is not aware of the outcome (Question 4).
- Caltrans has developed simple procedures to fund local projects that address TMDLs through cooperative implementation agreements, as a means of meeting its TMDL requirements (Question 7).

Part 2: Interview Questions and Responses

Topic 6: Agency-Specific Questions

Interviewee's response to talking points:

By way of background, Interviewee described three Caltrans funding sources: (1) SHOPPP funding (state highway operation projects), which funds capital improvements such as road widenings, ADA, safety, structure rehabilitation, (2) STIP funding, which also funds capital improvements, and (3) stormwater permit compliance funding, which is unique to the Caltrans stormwater program. The third funding source is the focus of the phone conversation. Stormwater permit compliance funding can be used to fund TMDL compliance, either by giving money to the State Water Board, in which case, the State Board would distribute it like a regular grant (a grant application process in which the State Board would decide which projects to fund), or by entering into a cooperative implementation agreement with a municipality. In this latter option, Caltrans determines at the end of the fiscal year (around March) how much money will be available to enter into a cooperative implementation agreement with one or more municipalities to implement local projects that will count toward meeting Caltrans' TMDL requirements. Once the cooperative implementation agreement is executed, the funds are encumbered and must be spent within three years. For example, if encumbered in 2016, the first of the three years will be 2016, and therefore the third year will be 2018. The project must be far enough along to use funds in this timeframe.

Follow-up Question: Do projects have to be shovel-ready?

Projects do not necessarily have to be shovel-ready. Caltrans could pay for the preparation of the environmental document and obtaining permits, but only if funds provided can be spent within three years.

Follow-up Question: Do you start looking around for projects in March?

We start looking earlier than March, but we won't know until March how much money will be available during that fiscal year. After the amount is determined, the funds must be encumbered by June 30. The amount available for cooperative implementation agreements is related to how much money is spent on monitoring. During drought years, there has been less monitoring and more money available to fund projects through cooperative implementation agreements.

Question 1: Given that San Francisco Bay is number 85 on the Reach Prioritization List, is it realistic to expect Cooperative Implementation Agreements for cities around the Bay any time soon?

Yes, it is realistic to have a project funded in the San Francisco Bay Area, despite the lower ranking on the list. If two projects compete, the ranking on list is only one consideration. For example, Caltrans wants to see the best bang for the buck. A project that would achieve substantially better water quality results may be selected, even if another project was in a higher ranking watershed. To date, the projects have been in south. There are more TMDLs there, and higher-ranking reaches; however, the next projects will likely be in the north, because the program needs to extend beyond Southern California. Some Bay Area cities, such as South San

Francisco and Oakland, have inquired about the Cooperative Implementation Agreement program. The program is expected to focus on the larger municipal areas (Los Angeles, San Francisco Bay Area, San Diego) and Lake Tahoe, based on water quality concerns.

Question 2: In the list of Criteria for Cooperative Implementation Agreements, are there any that stand out as particularly important?

Key criteria include: the size of the project (large projects are preferred), the number of TMDL pollutants that will be addressed, and the number of MS4s that will be benefitted (four cities or more would be good). There are fewer TMDLs in the Bay Area, which is related to the lower priority ranking. For example, there is no trash TMDL in the Bay Area, so a Bay Area project cannot provide TMDL credit for trash; however, Caltrans is required to reduce trash. So trash control must be provided, but it is not a priority.

Follow-up Comment: Described the requirement for green infrastructure plans in MRP 2.

Mercury and PCBs are priorities, as well as some pesticides such as Diazinon. Cities need to answer the nine questions in Caltrans' Criteria for Cooperative Implementation Agreements, for Caltrans to evaluate. Caltrans recognizes cities find it very costly to prepare grant applications and does not want to create a new form, so municipalities are just asked to answer nine questions. At some point, the State Water Board or an NGO may complain about this procedure, but so far, it is a very successful program. MS4s, NGOs, the State Board, and Regional Boards are all supportive.

Question 3: What kinds of projects would you most like to see funded?

Interviewee does not want to see "pie in the sky" projects. For example, although there are many good structural stormwater treatment mechanisms, he urges caution when considering the claims in a manufacturer's specifications. Infiltration is number one on most people's lists. High void infiltration basins seem to be most beneficial. Capture and reuse also key, in keeping with recent statements by the governor.

Follow-up Comment: Capture and reuse can be challenging given climate considerations and relative small areas available for groundwater recharge in the Bay Area.

Infiltration is just as good as capture and reuse.

Question 4: Are you aware of any obstacles local communities have encountered in combining the funding from a Cooperative Implementation Agreement with other funding sources to build a project?

Not yet. Interviewee doesn't know if an agency could match funds with money from a cooperative implementation agreement. The City of Signal Hill tried to use its cooperative implementation agreement money as matching funds, but Interviewee does not know the outcome. For most projects, Caltrans has funded the bulk of the project. Caltrans can only use these funds to cover water quality improvements, not beautification. For example, if an existing irrigation system is failing and must be brought up to code in order to use harvested rainwater, the funds could be used to fix the irrigation system.

Follow-up Question: Have any of the existing a cooperative implementation agreements funded a green street project?

No. The Long Beach Municipal Urban Stormwater Treatment (MUST) project is not a green street project, but it has several parts. Caltrans is funding the water capture and reuse part of the project. There is also education, and a wetland part of this project, which Caltrans is not funding. The Caltrans-funded part of the project provides pretreatment before stormwater enters the wetland. For more information on the MUST project, BASMAA could contact Tony Arrevalo, Long Beach.

Follow-up Question: Could a cooperative implementation agreement fund a green street project?

Interviewee does not see why not. However, the cooperative implementation agreement could only fund parts of the project that specifically provide water quality benefits. For example, if a city owns a parking lot, and installs a stormwater basin under the parking lot, re-paving the parking lot would qualify for funding, because it is necessary to achieve the water quality benefit. However, the cooperative implementation agreement could not pay for upgrading parking islands or other enhancements or beautification. This funding source is focused on the capture and treatment of stormwater. The city would need to fully fund the maintenance of the project. In funding projects through cooperative implementation agreements, Caltrans is not adding to its existing maintenance and operations inventory.

Follow-up Question: How many projects have been funded through the program?

Five.

Question 5: What challenges have you observed in the implementation of projects that seek to achieve multi-benefits?

So far, no challenges have been observed.

Question 6: Who would you identify as influential people who should be involved in discussions of how the State could make it easier for local agencies to combine funding sources (such as Caltrans funding under a Cooperative Implementation Agreement) to build an individual project?

Interviewee did not identify any individuals. The State Board would describe the available avenues for grant programs, or would simply direct people to talk to Caltrans about cooperative implementation agreements.

Question 7: What types of situations prevent Caltrans from achieving even broader results in its Cooperative Implementation Agreement program?

It is too early to tell. The State Board has given Caltrans a lot of flexibility for meeting its TMDL requirements. Caltrans has developed a relatively generic template, and so far cities have accepted the template as-is, with only minor changes. All parties have been on the same page, and no real obstacles have been encountered. The program is in its infancy, so time will tell if there are situations that will need to be addressed to better achieve results.

Part 3: Opportunities for Additional Investigation

Items that may warrant follow-up include:

- Links or copies of guidance or literature that can be further reviewed
 - Criteria for Cooperative Implementation Agreement, April 2016
 - Reach Priority List,
http://www.waterboards.ca.gov/water_issues/programs/stormwater/caltrans.shtml
- Potential case study projects and information about these projects
 - Long Beach MUST project, in which multiple parts of a project were funded by different funding sources (however, it is not a green street project).
 - The City of Signal Hill attempted to use cooperative implementation agreement funding for its Los Cerritos Channel Dry Weather Diversion Project as matching funds for another grant; the outcome is unknown.
- Potential other contacts to follow up with:
 - For more information on the Long Beach MUST project, contact Tony Arrevolo, City of Long Beach.

INTERVIEW RECORD

California Natural Resources Agency

Part 1: Interview Summary

Interviewer Information

Interviewer(s): Kelly Havens, Geosyntec Consultants
Interview Date: 19 August 2016

Interview Highlights

- Climate adaptation/mitigation programs CNRA is working to support (Question 1):
 - Executive order B-30-15:
 - Governor's call to reduce emissions also includes call to manage additional land to store carbon (farms, wetlands, and green space in cities)
 - Supporting development of land use based emissions targets
 - Another core goal of this is urban greening
- The State also relies on regions to prioritize goals put forth in executive orders (Question 1)
 - CNRA is always looking for models of programs to guide implementation
 - This Resilient Infrastructure Roundtable could be a case study to track going forward
- There is a new proposed Cap and Trade Auction revenue program to fund Urban Greening/ Green Infrastructure (Question 2):
 - If urban greening is to be funded through the Auction revenue, must show that greenhouse gases will be removed
 - This new program is intended to take the place of funding provided by Prop 84
 - If legislature approves the budget this month, this program could start this fiscal year
- Proposed discussion topics (Question 3):
 - Project Selection/Design decisions:
 - How to measure multi-benefit outcomes from project design (i.e. greenhouse gases, water quality, etc.)
 - Identifying/discussing regional planning tools
 - Discussions on how Green Infrastructure can achieve specific additional Benefits:
- Agencies/Individuals to include in Roundtable (Question 4):
 - Strategic Growth Council
 - DWR
 - CalTrans

- Strategic Growth Council
- California Natural Resources Agency
- Trust for Public Lands – Mary Creasman (or someone on her team) to demonstrate tool developed for LA

Part 2: Interview Questions and Responses

Topic: Climate Change

Question 1: What are the primary types of climate mitigation and/or adaptation projects that CNRA is currently supporting or working to support?

- Climate Change Mitigation Projects:
 - Co-lead with Cal EPA, Cal Fire, and other partners on Forest Carbon Plan –
 - manage forests to retain carbon stores
 - scheduled to be completed at end of year
 - Climate Policy Planning with Governor’s office:
 - 2030 update to state climate change scoping plan, which outlines how state will meet 2030 reduction targets
 - Energy policies and fuel policies, including grant programs
 - Executive order B-30-15:
 - Governor’s call to reduce emissions also includes call to manage additional land to store carbon (farms, wetlands, and green space in cities)
 - These Natural Working Lands will protect land for carbon sink, enhance restoration and management
 - They are also looking at innovative synergies between land management and carbon management, including waste management, agriculture, land use and development
 - Supporting development of land use based emissions targets
 - Aware that vehicles and infrastructure are biggest sources of emissions
 - As such, this includes promote infill development, public transit, and conserve land outside of cities
 - Another core goal of this is urban greening
 - Cap and Trade Auction Proceeds fund will be used for one such Urban Greening program
 - Program to look for GI opportunities which also reduce greenhouse gases
 - These are also intended to achieve water savings as part of water action plan
- Climate Adaptation Projects
 - Safeguarding California – Presents a blueprint for California Climate Adaptation
 - Ocean Protection Council – Puts out SLR guidance
 - B-30-15 Executive Order also will require adaptation components:
 - Task force looking to implement the executive order, including state planning and investments requirements
 - Guidance development for these components is also happening

- One focus is making climate goals actionable
 - Key component to success is financing
- The State also relies on regions to prioritize goals put forth in executive orders
 - CNRA is always looking for models of programs to guide implementation
 - This Resilient Infrastructure Roundtable could be a case study to track going forward

Question 2: What role do you see for landscape-based stormwater capture systems to help with climate change mitigation and/or adaptation?

- Urban greening is a focus of many climate mitigation/adaptation efforts
- There is a new proposed Cap and Trade Auction revenue program to fund Urban Greening/ Green Infrastructure
 - If urban greening is to be funded through the Auction revenue, must show that greenhouse gases will be removed
 - This new program is intended to take the place of funding provided by Prop 84
 - Part of the program will include looking at GI projects to examine Greenhouse Gases
 - Air Management District involved in this component
 - A second component will look at the advances in this area since prop 84
 - Namely, how to maximize greenhouse gas reductions per dollars spent
 - Program will also explore multi-benefit project examples:
 - Los Angeles habitat approach – includes implementing GI with native planting that intersects with stormwater drains to effectively “daylight” storm drains
 - Trust for Public lands – program to prioritize GI
 - Examines potential highest benefits for transportation, water, disadvantaged communities
 - If legislature approves the budget this month, this program could start this fiscal year
 - Likely to be ongoing for several years
- Cal Fire also has their own longstanding urban forestry program
 - funded through Greenhouse Gas Reduction Fund (part of the Cap and Trade Auction fund)
- CalEPA
 - Working on a new Transformative Communities program
 - Intent to bring together city components holistically to think about how to reduce GG and improve quality of life

Question 3: What topics would recommend for discussion for these Roundtables examining implementation and funding of multi-benefit projects?

- Project Selection/Design decisions:
 - How to measure multi-benefit outcomes from project design (i.e. greenhouse gases, water quality, etc.)
- Identifying/discussing regional planning tools
- Discussions on how Green Infrastructure can achieve specific additional Benefits:
 - Advancing Climate Adaptation
 - Urban heat island effect

- Quality of Life or Health Impacts
- Water quantity/quality benefits
- Active Transit – i.e., role of transit in states climate change transportation strategy

Question 4: Who would you identify as influential people who should be involved in discussions of funding multi-benefit projects?

- Strategic Growth Council – brings together different threads to support growth
- DWR
- CalTrans
- Strategic Growth Council
- Resources Agency
 - Working with state to pursue climate policy
 - Work with DOT on land use and urban
- Trust for Public Lands – Mary Creasman (or someone on her team) to demonstrate tool developed for LA
- LA Habitat tile approach

Final Comments/ Questions

- Follow up with Interviewee if we are interested in getting contacts from her for Roundtable participants

Part 3: Opportunities for Additional Investigation

- Reports suggested by Interviewee:
 - Executive Order B-30-15
 - Ocean Protection Council SLR guidance (March 2013)
 - Safeguarding California: Implementation Action Plans (CNRA, March 2016)
 - LA River Ecosystem Restoration Feasibility Study (ACOE, August 2013)
 - The Trust for Public Land Climate Smart Cities (<http://www.tpl.org/services/climate-smart-cities>)

INTERVIEW RECORD

Department of Water Resources

Part 1: Interview Summary

Interviewer Information

Interviewer(s):	Kelly Havens, Geosyntec Consultants
Interview Date:	24 August 2016

Interview Highlights

- In general, DWR trying to move towards more sustainable projects and overall perspective, defined as including (Question 1):
 - Public health and safety
 - Economic stability
 - Environmental protection
 - Enriching experiences (recreation, cultural values for resources, aesthetics, etc.)
- IRWM aims to get to the four benefits identified at the regional level, including Grant program initiated to encourage municipalities to work together to manage all water resources in a region (Question 2):
 - It is in the state's interest to help with the regional efforts
 - Started in 2002 with Prop 13, continued with Prop 50 and 84, and now with Prop 1
 - Prop 1 includes 510 million to the regions in the next 6-7 years, and projects must be multi-benefit
- Challenge – It is in the state's interest to advance IRWM projects, but state also wants projects to be leveraged (Question 3):
 - Almost all grant programs requires matching funds, and seeking those funds can be tough
 - Disadvantaged communities often struggle
 - Latest round of Prop 1 money is geared towards disadvantaged communities – they are hoping to address this issue
- Multiple benefit project success on a policy level – the Governor's Water Action Plan, adopted by three major state agencies (Question 4):
 - CA Natural Resources Agency (DWR/CDFW); CalEPA (Water Board, Regional Boards); CDFA
 - Plan includes a push for integrated water management, as well as emphasizing the need for balancing health and safety, environment, and community values
 -

- Success at the regional level, one IRWM project that has been successful through Prop 84 is the Advanced Quantitative Precipitation Indices (AQPI) (Question 4)
- Recommend reaching out to (Question 5):
 - Carl Morrison, best contact for IRWM
 - Jennifer Krebs, very active with IRWM
 - Grant Davis, SCWA general manager
 - Steve Richie, SFPUC
 - Norma Camacho or staff, Santa Clara County Valley Water District
 - Celeste Cantu, Santa Ana
 - LA County
 - Kevin Perry – UC Davis

Part 2: Interview Questions and Responses

Topic: Water Resources

Question 1: What kinds of multi-benefit project initiatives, related to green infrastructure, is DWR currently involved in?

- In general, DWR trying to move towards more sustainable projects and overall perspective, defined as including:
 - Public health and safety
 - Economic stability
 - Environmental protection
 - Enriching experiences (recreation, cultural values for resources, aesthetics, etc.)
- DWR is moving towards balanced management of watersheds with all of those components
 - This move is being promoted by Gary Bardini (Integrated Water Management Deputy Director)
- In particular, the Integrated Regional Water Management program and grant program supports these goals
 - Money is made available through IRWM to promote multi benefits in a region
 - Integrated water management emphasizes the importance of a diverse portfolio of projects
 - One example: flood control balanced with ecosystem protection

Question 2: How does the Integrated Regional Water Management effort and grant program integrate considerations of multiple benefits (e.g. water quality, flood control, climate change, and/or transportation benefits)?

- Gary Lippner – is the Integrated Regional Water Management lead in the North Central Region Office
- IRWM aims to get to the four benefits identified at the regional level
 - Includes working collaboratively with agencies to try to improve multi-benefit projects and discussing the need for an integrated portfolio
 - Represents a paradigm shift from siloed water resources projects

- Grant program initiated to encourage municipalities to work together to manage all water resources in a region
 - o It is in the state's interest to help with the regional efforts
 - o Started in 2002 with Prop 13, continued with Props 50 and 84, and now with Prop 1
 - Prop 1 includes \$510 million to the regions in the next 6-7 years, and projects must be multi-benefit
- IRWM grant program
 - o Planning and implementation grants geared towards collaborative efforts across jurisdictional boundaries to implement multi-benefit projects
- SF Bay IRWM Plan for the hydrologic region
 - o Includes the IRWM Plan, processes and projects
 - o Project selection, management, and advancement all done at the regional scale
 - o Includes flood, water quality, flood, watersheds, and other projects
 - o SF IRWM Group has obtained a number of planning and implementation grants under Prop 50 and Prop 84
 - o Plan can also be used to identify groups, governance structure, policy, projects
- Regional office helps with SF IRWMP and IRWM headquarters grants
 - o IRWM grants page shows Bay Area projects applied for and awarded
- California Water Plans – 2013 Vol 2 is regional reports
 - o SF Bay hydrologic regional report – governance structures, groups, IRWM, various plans, significant amount of reference material
 - List of projects across watershed
 - When a grant application/solicitation comes out, group will agree upon which projects will be put forward – have to show multi-benefit, diverse portfolio to get money

Question 3: What challenges have you observed in the implementation of projects that seek to achieve multiple benefits (e.g. water quality, flood control, climate change, and/or transportation benefits)?

- Challenge – It is in the state's interest to advance IRWM projects, but state also wants projects to be leveraged
 - o Almost all grant programs requires matching funds, and seeking those funds can be tough
 - There is some federal grant funding that can be used as match, but if more was available, it might be easier to provide matching funds
 - o Additional benefit of more Federal funds: Regional IRWM groups are not just looking for IRWM grants, they are looking at all grant types
 - If more funding from non-state funding was identified, it could advance the program
 - o Additionally, meaningful involvement of all interests in a region or a watershed is needed
 - But, since it takes money to do projects, If you can't bring money to table, aren't going to get funding
 - This ends up giving “well-heeled” watersheds more control over funds
 - Disadvantaged communities often struggle

- Latest round of Prop 1 money is geared towards disadvantaged communities – they are hoping to address this issue
- Challenge - Regulatory concerns – there are various regulatory agencies and permits that become important with multi-benefit projects
 - Aligning them all for funding can be problematic
 - This can lead to uncertainty of project success due to permitting constraints
 - As a result, it discourages multi-benefit, multi-sector projects because it is difficult and time intensive to collaborate across sectors
 - Example of a multiple benefit concept struggling with this challenge: grey water use/ stormwater reuse/ black water
 - Great option for water reuse, but has not been widely applied
 - Currently there are contradictory policies throughout the state regarding reuse and other misaligned issues that make it challenging to implement
- Challenge Institutional constraints
 - Engineers can sometimes introduce project constraints because want to do things by the book

Question 4: What experience have you had in partnering with other agencies to achieve broader implementation of multi-benefit projects?

- IRWM is one example
- Governor’s Water Action Plan, adopted by three major state agencies
 - CA Natural Resources Agency (DWR/CDFW); CalEPA (Water Board, Regional Boards); CDFG
 - Plan includes a push for integrated water management, as well as emphasizing the need for balancing health and safety, environment, and community values
 - High level guidance document
 - Includes 10 priority actions/objectives
 - Priority 2 – self-sufficient regions, including multi-benefits and planning
 - Priority 6 – groundwater management and storage, including conjunctive use
 - Priority 1 – conservation, related to desalination efforts
 - January write update progress report on CNRA website
- Water Action Plan Represents the first time that a guidance document was put forth by governor that tries to put all of the work of these three different agencies into a single document
 - Exciting time to be in water resources because of these integrated management initiatives
 - There are some concerns with how a with new administration will support this effort
 - Hope to write CA water plan update such that integrated water resources initiatives can survive successive administrations
 - In general, plan is a representation of the current great opportunity to think towards multi-benefits
 - Action plan ties everything together - having common vision/ document is paramount
- Other goals across these agencies are represented in individual documents:
 - The Strategic Water Resources Plan, by the State Water Board, which references the CA Water Action Plan
 - Includes Stormwater as a resource initiatives

- At the regional level, one IRWM project that has been successful through Prop 84
 - o The Advanced Quantitative Precipitation Indices (AQPI)
 - Includes real-time quality forecasting
 - Fundamental data acquisition platform
 - o Addresses differing needs of multiple organizations:
 - SFPUC – wastewater treatment plant needs - cost savings to not have false starts for trucks heading out to support plants during wet weather
 - Flood, water supply, watershed groups all benefit from this
 - o Regional success project
 - Will be added into statewide infrastructure

Question 5: Who would you identify as influential individuals or agencies, who should be involved in discussions of funding multi-benefit projects?

- Carl Morrison
 - o Best contact for IRWM, wealth of knowledge
- Jennifer Krebs
 - o very active with IRWM
- Grant Davis, SCWA general manager
- Steve Richie, SFPUC
- Norma Camacho or staff , Santa Clara County Valley Water District
- Celeste Cantu, Santa Ana
- LA County –
 - o Water resources are vertically integrated
 - WQ, GW, Flood, water supply under one governance structure
 - Tend to have more success and be early promoters – easy to agree when in the same organization
- Kevin Perry – UC Davis
 - o Landscape architect from Portland, OR
 - o Knows about San Pablo green spine (knows Josh)
 - o He presented for staff in Sacramento
 - Transportation engineers in Sac struggling with Green Infrastructure due to the potential introduction of water into streetscape through green spine
 - Kevin Perry had everyone on board by the end of the day

Other comments:

- CASQA – at one time there was grant money to do study of barriers to low impact development and multi-benefit work
 - o Select case study city/counties and try to streamline process to promote GI rather than have impediments
 - o May be some project outcomes
- Keep the north central region office in the loop

Part 3: Opportunities for Additional Investigation

- San Francisco IRWM Plan
- State IRWM website for further information
 - Documents on website may be helpful
 - Working on atlas to see multi-benefit project information in a region
- IRWM grants page
 - Archives for various projects applied for and awarded
 - Bay area projects included
- California Water Plans – 2013 Vol 2 Regional Reports

INTERVIEW RECORD

Metropolitan Transportation Commission

Part 1: Interview Summary

Interviewer Information

<i>Interviewer(s):</i>	Laura Prickett, Horizon Water and Environment
<i>Interview Date:</i>	22 August 2016

Interview Highlights

- In Plan Bay Area, MTC uses a multi-benefit analysis to identify transportation projects for long-range funding. Due to statutory greenhouse gas (GHG) reduction targets, projects to promote biking, walking, transit oriented development (TOD), public transit perform well (Question 1).
- MTC's multi-benefit analysis of projects for Plan Bay Area, noted above, does not require urban greening, but tends to advance urban greening (Question 1).
- The One Bay Area Grants (OBAG), administered by MTC for short-term funding, require the receiving jurisdiction to have a circulation plan or complete streets plan that includes bike and pedestrian use of the roadway network. This tends to advance urban greening (Question 1).
- The county-administered share of federal surface transportation funding is subject to the complete streets requirement noted above, and these projects often include urban greening (Question 1).
- As part of the OBAG program, MTC is partnering with the SCC on Round 2 funding for priority conservation areas (PCAs), which will include urban (Question 4).
- MTC is partnering with SCC and The Nature Conservancy (TNC) to aggregate mitigation of the impacts of transportation projects, particularly for impact to sensitive habitats. This will result in large-scale, better quality mitigation, and will keep the mitigation in the Bay Area (Question 4).
- Cross-sector partnerships are needed to accomplish climate change adaptation projects identified in the Adapting to Rising Tides (Question 5).
- Implementation of ART projects will require partnerships with key cities on how the cities want to proceed. In such a big region, coordination will be complex; legislation is needed to frame objectives, identify an entity with responsibility, etc. (Question 6).

Part 2: Interview Questions and Responses

Topic: Multi-Benefit and Water Projects

Question 1: To what extent does MTC seek to incorporate non-transportation benefits, such as climate change adaptation or urban greening, in transportation projects?

- MTC's attempts in this area have been rather significant. For the Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS), transportation projects must conduct pretty rigorous project performance assessment, which includes two groups of assessments. First there is a cost-benefit analysis, using a formula developed by MTC. Secondly, the project's performance is weighted against the criteria established by the Commission, which address equity, economy, and the environment. A key consideration is the achievement of statutory targets provided by the State Air Board for greenhouse gas (GHG) reductions. This assessment also considers the likelihood that for a project to increase transit use, biking, walking, and public health. The target scoring system is pretty aggressive and forward thinking in its consideration of multiple benefits; some would argue that it does not incorporate transportation enough.
- MTC is going into the 2nd RTP/SCS using this performance assessment approach. It results in some projects, generally major roadway that are considered to produce sprawl, not going forward in the plan. Unless they are fully locally funded, that type of roadway project doesn't perform well, and there are relatively few such projects in the region.
- On other hand, projects that support biking, walking, transit oriented development (TOD), and transit projects score well, and they become priorities for future funding. The RTP is a long range document and is fiscally constrained, which means that projects included in the plan must anticipate that funds will be available, although there is no date certain. Although MTC advances urban greening fairly significantly, there is no requirement for projects to include urban greening.
- One Bay Area grants, which MTC issues for short term funding, provides an example for how urban greening is being advanced. The One Bay Area Grants (OBAG) distribute surface transportation funding from the federal government in the Bay Area. For any jurisdiction to receive OBAG funding, it must have a circulation plan or complete streets plan that includes bike and pedestrian use of the roadway network. This tends to advance urban greening, although there is no specific urban greening requirement. The Commission just approved round 2 of the OBAG grants.
- For next five year segment, about \$450 million of surface transportation funding is issued at regional level (which covers OBAG grants), while about \$350 to \$400 million goes to counties in the region based on a formula that considers population and housing, including the affordable housing targets that each county takes on. The funding that happens at the county level is subject to complete streets requirement mentioned above and is often used to pay for streetscape improvement projects. For the five more urban counties of the Bay Area,

70 percent of the funding must go to priority development areas (PDAs). These projects often include urban greening as part of improving existing roadways.

Question 3: What challenges have you observed in the implementation of projects that seek to achieve multi-benefits?

- The intent of Plan Bay Area is to implement projects that achieve multi-benefits. MTC's current approach to assessing transportation projects, and its consideration of multiple benefits, has evolved over time. The One Bay Area grant program creates one big grant program, which MTC staff sometimes call a "block grant," which gives agencies a fair amount of flexibility of how they spend it. The OBAG program replaced a number of former separate programs, including a bike program and a streetscape program, which formerly were funded with the federal surface transportation money. The OBAG program seeks to incentivize density by directing funding toward PDAs. The amount of money a jurisdiction receives is based on how much growth within PDAs your county is taking on. This has been a big improvement. There used to be problems with the separate programs. For example, one year a city might receive funding under the bicycle program for a bike/pedestrian project to go forward. Then, a few years later, funding might come through to provide other improvements on the same road, so the bike lane is torn up. The OBAG program seeks to help agencies achieve more all at once. The biggest limitation is there is not enough money to meet the needs.
- With regard to urban greening, Interviewee was involved in the discussions of "Special Projects" (high density and TOD type projects) during the negotiations of the first Municipal Regional Permit (MRP 1). From his perspective, the region may still be on a learning curve with regard to how urban greening can work in dense urban neighborhoods and in zero-lot-line projects. Although MTC has funded many projects that include stormwater treatment facilities in the public right of way, Interviewee is not familiar with specific examples of how this has worked. MTC provides funding for planning, including specific plans and area plans, such as the Diridon Station area plan in San Jose. These types of plans get into the detail of what a city wants in terms of parks, urban greening, and could potentially provide specifics of how stormwater facilities would be incorporated in the public right of way. Then there are the very large projects, such as a BART extension, or Caltran electrification, in which stormwater facilities are integrated into the project design.

Question 4: Are you aware of projects that have combined funding from water agencies and transportation agencies to incorporate climate change, water quality, or urban greening benefits in a transportation project?

- Interviewee is not aware of projects that have combined funding from water agencies with transportation funding to incorporate climate change, water quality, or urban greening benefits in a transportation project. MTC has joined forces with the Coastal Conservancy around funding for priority conservation areas (PCAs). This funded trail oriented and rural roadway projects in the north counties. A larger portion of funding went to the five more urban counties to cover projects such as segments of the Bay Trail. The partnership with the

Coastal Conservancy went very well, and based on that success, MTC is now looking to partner with the Coastal Conservancy again on two fronts. The first of these initiatives is for Round 2 of the funding for PCAs, as part of the OBAG program, which the Commission approved a few weeks ago. MTC would like to partner with the Coastal Conservancy again for distributing grants in the five more urban counties.

- The second initiative that involves partnering with the Coastal Conservancy is a regional mitigation planning effort, which also involves The Nature Conservancy (TNC). This project will look at transportation project mitigations in aggregate over the long term. For all of the projects included in Plan BayArea, this regional mitigation planning effort will identify the mitigations that are required for each project to advance. At present, each individual project must do its own mitigation related to habitat loss. This planning effort would aggregate impacts across a sub-region, look at transportation projects in those counties, then create a mitigation bank, where those projects would do their mitigation up front together. This is anticipated to result in large-scale mitigation projects that provide better quality mitigation, and keep the mitigation in the nine-county Bay Area. (It is not uncommon to pay for mitigation outside the nine counties.) The up-front mitigation would be provided in exchange for regulatory agencies not holding up the project down the road. In the potential partnership with the Coastal Conservancy, MTC would function as a clearinghouse, identifying the projects, their funding source and timeline. The Coastal Conservancy would manage the mitigation aspects of the program.

Question 5: What topics would you recommend for agencies to discuss to help encourage and/or fund cross-sector projects?

- Climate change adaptation work is an important topic for cross-sector partnerships. This work is just getting started, and some would argue that it is not going as quickly as we would like. The Adapting to Rising Tides (ART) project has been completed for the Alameda County shoreline, and now the ART process is studying other areas. In Alameda County, actual projects have been identified. The Bay Area Toll Authority (BATA), which is managed by MTC, has identified funding, starting in 2017, to do a series of projects identified by ART. This is viewed as a model to go forward to do more ART projects around the Bay, looking at most vulnerable areas first. BATA came up with funding in part hoping that State would provide funding. However, there is no state funding available for these actual adaptation projects. MTC views that as something that will grow over time. There is one project that relates to east span of the Bay Bridge, to protect the low-lying access ramps to the bridge. Another project involves BART in Coliseum areas close to San Antonio Creek.

Question 6: Who would you identify as influential individuals or agencies who should be involved in discussions of funding multi-benefit projects?

- MTC is involved in a partnership with BCDC through the Bay Area Regional Collaborative, which is headed by Allison Brooks. Allison also is aware of BASMAA's Regional Roundtable. They are seeking to take a more comprehensive approach in implementing climate change adaptation. MTC planning staff is involved in this effort and is considering

multiple benefits of climate adaptation projects. For example, protection of the East Span of the Bay Bridge will not only be about protecting the bridge approach. The project is also looking at how to provide some protection to Emeryville. What will make this challenging will be working on a larger scale. There will be the need to be partnerships with key cities on how the cities want to proceed. There are major business especially in Silicon Valley that are rather vulnerable to sea level rise (SLR). They are starting to look at these issues in more detail. There needs to be more business involvement, and more cities involved. In such a big region, this effort could become ungainly. Legislation is needed to frame objectives, identify an entity with responsibility, identify how local governments and businesses can be involved and contribute funding. There are other staff within MTC who have more detailed information, and these issues may already be more addressed to a larger extent than Interviewee is aware of. Nevertheless, this is a key issue that requires collaboration and regional attention.

Question 7: Could you share any success stories you are aware of regarding implementation of cost-effective multi-benefit projects?

- A lot of the infill development that is happening in the core of the region is starting to incorporate urban greening in an interesting way. Lumina Towers next to 375 Beale. It contrasts with typical development in San Francisco (which generally has wide sidewalks and maybe a few trees). In front of MTC's new building there is a permeable sidewalk. Another interesting project is a suburban scale project, Alameda Point, in Alameda near Webster, near tunnel. Green infrastructure was included at this site is part of the regulatory framework within City of Alameda.

INTERVIEW RECORD

Office of Planning and Research

Part 1: Interview Summary

Interviewer Information

Interviewer(s): Kelly Havens, Geosyntec Consultants
Interview Date: 18 August 2016

Interview Highlights

- Even if funding is obtained, often cross-sector projects run into problems with mismatched funding, permitting, and/or timing between sectors (Question 2)
- Topics of discussion recommended (Question 3):
 - How to best identify cost-benefit of integrated projects
 - Opportunities for streamlining the grant process (i.e. assigning one agency to manage others for these types of projects)
- Recommended agencies/individuals to contact for Roundtable (Question 4):
 - Other regions could be contacted, for example:
 - Sonoma County – Water –Energy Nexus Work
 - Los Angeles/ Orange County for multi-benefit project work
 - Riverside County (City of Ontario) – joint development project
 - Darrin Polhemus – Water Board financing
 - Energy Commission
 - Strategic Growth Council – specifically Heather Fargo, now retired - spent a lot of time on a multi-benefit umbrella program, may have good lessons learned

Part 2: Interview Questions and Responses

Topic: Multi-Benefit and Water Projects

Question 1: What kinds of multi-benefit projects align with initiatives you are working on at OPR?

- Currently, OPR is working to align land management and water management and decision making in the state
- Resilience is another topic OPR is working on and is becoming more integrated across sectors

- In general, experience has been that multi-benefit projects are difficult to complete
 - o Because of this, suggest that multi-benefits be selected locally (they may be highly regionally specific)
 - o It seems that the broader the “multi-benefit” net is cast, the greater the benefit in long term
- Examples of regionally specific multi benefits include:
 - o Water quality, community greening, transportation,
 - o Disadvantaged community benefits, such as edible vegetation or lighter-colored pavement and other heat island mitigation
 - o High-traffic rail yard or ports offer other opportunities to engage different sectors
- Process of building cross-sector relationships is valuable

Question 2: What challenges have you observed in the implementation of projects that seek to achieve multi-benefits?

- Typically, not getting funding is one of the major issues
- Even if funding is obtained, often cross-sector projects run into problems with mismatched funding, permitting, and/or timing between sectors:
 - o For instance, if permits don’t align, project timing can be set back, leading to other issues
 - o Often times, these types of issues come up after a funding package is approved – package typically assumes all varying project components will align per a designated schedule
 - o When, for example, permit issues happen, certain components of the project which were supposed to be in place to meet specific contract or funding requirements are not – leading to failure to meet contract, timeline push, or higher costs
 - o In addition, if different sector funding sources are obtained for a cross-sector project, often funding requirements vary – e.g. prevailing wage
 - Becomes challenging to determine how to account for all the varying differences
 - Very few projects are funded by general fund, which would provide more flexibility
- Funding/Permitting/Project systems not currently set up to encourage/promote multi-benefit projects across sectors, for the most part
 - o Projects within the water world are fairly well aligned
 - o Water-energy nexus is a cross-sector area that has had improvement
- At the state level:
 - o Funding –no clear pathway to align different pots (other than adopting fed guidelines; likely not popular)
 - One initiative currently involves water public good dollars (part of proposition process) – if structured well, this could provide more flexibility to ease process

- Policy – individual institutions have separate cultures/values; would require culture shift between agencies
 - State Water Board has many progressive initiatives – i.e. Strategic plan to promote watershed approaches to water quality issues
 - Entails Full review of issues/barriers (within the realm of water resources management) that might be causing blockades to the watershed level approaches
 - Other agencies more locked into their current
- Conceptually, people are supportive of the idea of multi-benefit projects

Question 3: What topics would you recommend for agencies to discuss to help encourage and/or fund cross-sector projects?

- How to best identify cost-benefit of integrated projects:
 - Example - Tree people organization in LA focused heavily on cost- benefit of individual vs. multi-benefit projects and showed savings with integrated projects
 - Cost savings ended up being a main driver that brought local agencies together
 - Cost issues can help bring people to the table
- Opportunities for regulatory streamlining
 - Almost need one agency to take responsibility for work between multiple agencies for these types of projects.

Question 4: Who would you identify as influential individuals or agencies who should be involved in discussions of funding multi-benefit projects?

- Other regions could be contacted, for example:
 - Those involved with Los Angeles multi-benefit projects, such as projects promoted by Tree People
 - Irvine ranch water district (Orange County) in regards to their wetland restoration multi-benefit projects
- Sonoma County has proactive in integrating across water and energy for multi-benefit projects
- Darrin Polhemus – Division of Financial Assistance at the Water Board
 - He has taken a broad approach across water sector to align different areas
- Energy Commission
- Strategic Growth Council
 - At one time, had a program to pull funding programs together under umbrella under SGC, and assist grant applicants in identifying the programs they should apply for
 - Ultimately, this program did not work out
 - Heather Fargo, now retired - spent a lot of time on this program, may have good lessons learned

Question 5: Could you share any success stories you have heard regarding implementation of cost-effective multi-benefit projects?

- Riverside County Mill Street Wetlands
 - o Located at a prime development area that many developers were interested in
 - o City of Ontario told developers to collaborate to develop area comprehensively rather than piece meal
 - o Nine developers ultimately created a consortium to collectively address water quality and other needs
 - o Regional engineered wetlands serving multiple projects were created as an alternative to on-site stormwater
 - Ecological and recreation benefits,
 - Eventually will be connected to park which will be a transportation route to city of Ontario – transportation benefits
- Prime example – Tree People on Elmer Street – similar to types multi-benefit projects

Interviewee would like to be kept in the loop regarding findings of the Roundtable project.

INTERVIEW RECORD

San Francisco Bay Area Planning and Urban Research Association (SPUR)

Part 1: Interview Summary

Interviewer Information

Interviewer(s): Matt Fabry
Interview Date: 8/26/16

Interview Highlights

- Green infrastructure is very important to SPUR, as are Complete Streets, and quality urban design (Question 1).
- Interviewee believes green infrastructure is totally absent from regional discussions about housing and transportation (Question 2).
- Issues such as emissions reductions, transportation, housing, equity, and climate change adaptation are the priority discussions in the Bay Area, green infrastructure only gets discussed in specific circles (Question 2).
- Silos are a significant barrier to implementing multi-benefit projects, as is funding and the expectation that incorporating GI is going to reduce already strained resources for priority issues of transportation and housing (Question 3).

Part 2: Interview Questions and Responses

Topic: Multiple Topics

Question 1: What kinds of multi-benefit projects is SPUR interested in seeing developed, and to what extent is green infrastructure included or absent from those efforts?

- Green infrastructure is important to SPUR and it has advocated for more GI, especially in San Francisco. Less so in other areas now that SPUR is more regionally focused.
- The requirements of the Municipal Regional Permit deeply impact site design and urban design.
- Complete streets and smart urban design are key issues for SPUR.

Question 2: To what extent is green infrastructure part of regional discussions about things like transportation, climate change, and housing?

- Green infrastructure is totally absent from these discussions. Issues such as emissions reductions, equity, and climate change adaptation are major discussions in the Bay Area, and green infrastructure is not a part of them and really only discussed in specific circles where GI is a key issue, such as the stormwater management world.
- Housing advocates tend to be singularly focused on building more housing and are less concerned about where it is and issues like good urban design, so green infrastructure is definitely not part of their discussions.
- Why isn't Regional Water Board part of the group of Bay Area agencies developing things like PlanBayArea? Could be addressing water issues as well as transportation and housing.

Question 3: Is green infrastructure integrated into discussions at SPUR amongst sustainability, water, or transportation groups?

- Not as much as it could be. Transportation folks may see the benefit in incorporating green infrastructure into a particular project, but are usually staying in their silo, especially if adding green infrastructure is going to reduce the available funds to achieve the primary objective (e.g., transportation project) or if it will directly conflict with a primary objective (e.g., GI will get in the way of putting in a bike lane).
- Housing and transportation projects are already viewed as incredibly expensive with constrained/insufficient resources. Stormwater management is viewed negatively when it will reduce those funds and impact the layout/design.
- If stormwater management can bring additional funds to a project, it would be viewed much more favorably and a means to enhance a particular design/project.

Part 3: Opportunities for Additional Investigation

Question 4: Who would you identify as influential people who should be involved in discussions of funding multi-benefit projects?

- David Senn at SFEI indicated they have a tool for helping with GI planning (discussed that this was likely their Green Plan-IT tool and that they were already part of this grant effort, expanding its application to more Bay Area jurisdictions)
- MTC staff. Ken Kirkey, planning director, used to be a SPUR Board member. Other planners, such as Doug Johnson. Could GI be integrated into MTC's "Vital Signs" indicator index?
- BCDC. Some view their jurisdiction as 100 feet from shoreline, others say it expands further up into the watersheds, especially when riverine flooding will be exacerbated by sea level rise and upstream interventions are needed.
- Kerry Romanow with San Jose.

- ABAG – recently got FEMA funds for a resiliency study related to water utilities. Michael Germeraad is the staffer.
- Allison Brooks with the Bay Area Regional Collaborative.
- Jeffrey Tumlin – City of Oakland, Nelson/Nygaard. He is great and understands/advocates for GI.

INTERVIEW RECORD

State Coastal Conservancy (SCC)

Part 1: Interview Summary

Interviewer Information

<i>Interviewer(s):</i>	<i>Laura Prickett</i>
<i>Interview Date:</i>	<i>August 18, 2016</i>

Interview Highlights

- More information is needed to determine the extent to which LID facilities provide climate change resiliency benefits, such as water supply and lowering peak flooding in an extreme event (Question 2).
- It would help to have tools that would assist funders in demonstrating that stormwater capture facilities are in the right place to provide the best benefit (Question 2).
- Infiltration or harvest and use are more beneficial than projects that treat and release runoff. The benefits of stormwater treatment projects are not always clearly explained (Question 2).
- Different people (including some interviewees) use terms such as “green infrastructure,” “urban greening,” and “resilient” differently. This can create confusion in various ways, and has potential to create confusion at Roundtable meetings (Question 3).
- It would be useful to discuss how urban greening is being handled by different funding agencies (Question 3).
- Coastal Conservancy is discussing a potential urban greening conference in December 2016. Roundtable planners and conference planners should stay in touch regarding synergy between the two events (Question 4).
- Moore Foundation and the California Endowment may fund urban greening projects. To work with foundations, it is good to focus on the health angle of projects, such as heat island effect and air quality (Question 4).

Part 2: Interview Questions and Responses

Primary Question 1: What kinds of projects would you like to see funded to benefit San Francisco Bay?

The Coastal Conservancy funds a wide range of projects that benefit the Bay, extending across the nine-county Bay Area, including watershed projects, lots of wetland restoration and land conservation to protect watershed land. They are not as involved in wastewater and contamination

issues. They have worked with local entities on shoreline issues, sea level rise (SLR) and resiliency. Wetlands is a key focus of Measure AA, including the use of green infrastructure approaches to wetland restoration.

For example, a SLR assessment in Benicia was funded. Subsequent phases will include SLR pilot projects. Pilot projects are needed to test SLR adaptation techniques, such as the living shorelines project in San Rafael. On the other hand, wetland restoration in Bay has scaled up over decades. At this time, wetlands are being restored at a scale of tens of thousands of acres.

Follow-up Question: Can you provide examples of projects that are further up in the watershed?

These tend to be smaller projects, and there is not a main focus. These are often creek and river restoration projects, such as the Napa River reengineering project. Right now there are projects in both Richmond and San Jose that are further up in the watersheds. They also fund small urban creek projects, such as Sausal and Codornices creeks in the East Bay, Guadalupe River in San Jose, San Francisquito Creek on the Peninsula. They have done a lot of watershed riparian restoration, fish passage, and smaller green infrastructure projects. For example, in Richmond there was a project to remove part of parking lot and create bioswales. But this work has not been at same scale as wetland restoration and land acquisition. About half of the funding in Bay Area is for land acquisition. They have worked with Regional Conservation Districts on nonpoint source pollution control sediments, including working with ranchers and farmers erosion control.

Primary Question 2: What role do you see for landscape-based stormwater capture systems to help with climate change adaptation?

More information is needed to determine the climate change resiliency benefits of bioretention facilities. In Southern California there are stormwater capture projects that clearly address the drought. The water supply situation is different in the Bay Area. There is potential for these facilities to provide native habitat. Water quality facilities are typically sized to address frequent small storms. Studies could be done to determine under what conditions these facilities could help to lower peak flooding in an extreme event. The Coastal Conservancy is always looking for projects that have multiple benefits.

It would help to have tools that would assist funders in demonstrating that stormwater capture facilities are in the right place to provide the best benefit. Some projects put water back into storm drain system after filtering it. Infiltration or harvest and use are more beneficial. It is beneficial to tear up pavement and plant native plants, but the benefits are of stormwater treatment projects are not always clearly explained. It is important to prioritize these projects.

When the Coastal Conservancy issued its first round of Climate Ready Grants, which funded urban greening projects, they found that different applicants used different methods to discuss how much water was filtered, and how much was captured. This made it hard to evaluate the benefits of the projects. It was hard to tell which projects were making a big impact, and which had just thrown in a few bioswales to satisfy the grant requirement. In the second round, the Coastal Conservancy partnered with the Strategic Growth Council (SGC) to learn how SGC reviews urban greening projects. SGC had a standardized approach for describing benefits, which was helpful. However, SGC won't fund permeable paving.

Primary Question 3. What topics would you like to discuss with policy-level staff from other funding agencies?

The Coastal Commission is administering some Prop 1 funding that involves urban greening. They are looking to do a more focused round in the near term. It would be useful to discuss how is urban greening being done by different funding agencies.

It would be useful to clarify what is meant by the terms “green infrastructure” and “urban greening.” For example, to what degree would salt ponds be considered green infrastructure? Sometimes people use the term “green infrastructure” to mean bioswales. There should be clarity about what the focus is for green infrastructure and urban greening, so no one wastes time writing grant applications that do not address purpose of the grant.

It would also help to have more clarity around the term “resilient.” It seems to be used very broadly. In addition to agreeing upon clear language, it would help to discuss the tradeoffs with different types of projects.

It would also be useful to have more clarity on the requirements for the stormwater resource plans that are needed to receive funding under Prop 1. It would help to know what the Water Board will approve, and how long it will take. How much of a project does stormwater relate to? These questions affect any city getting a grant. It may be helpful if the roundtable could result in recommendations that potentially shape the answer to some of these questions.

Primary Question 4. Who would you identify as influential people who should be involved in discussions of funding multi-benefit projects?

The Santa Clara Valley Water District (SCVWD) is involved in a watershed master planning process. Norma Camacho, the CEO of SCVWD is a holistic thinker and could have good input. Brian Mendenhall of SCVWD is involved in watershed planning. The San Francisco Public Utilities Commission (SFPUC) would also offer good input – Rosey Jenks would be the best contact. The Coastal Conservancy is discussing the potential for holding a half-day or ¾-day conference on urban greening in December 2016, to discuss funding opportunities and convene leadership on this topic. They are planning to contact Matt Fabry. Other participants are anticipated to include Allison Chan of Save the Bay, Josh Bradt of SFEP, and Mary Creasman and Alejandra Chiesa of Trust for Public Land, Alejandra Chiosa. There should be synergy between this workshop and the Roundtable, so the two groups should stay in touch as the respective events are being planned.

Follow-up Question: Have any of your projects involved partnering with foundations, such as the San Francisco Foundation?

Yes, Coastal Conservancy has co-funded projects with private foundation, and has received foundation funding, but there has not been a ton of involvement. San Francisco Foundation’s focus is equity at this point. Urban greening may fit that focus. The Executive Officer of San Francisco Foundation is an SFPUC commissioner. Francesca Vietor.

Follow-up Question: What foundations have you worked with other than San Francisco Foundation?

Moore Foundation, which does land acquisition and science education. The California Endowment has partnered in Richmond and East Oakland. The California Endowment works with 30 communities, all low income. If you want to work with foundations, it would be good to focus on the health angle of projects, such as heat island effect and air quality. The Richmond Greenway is a good example of a project that has been successful in obtaining a broad mix of funding. There are 19 non-profits working under an MOU; they have brought in a ton of funding from private sources, the federal government, and state agencies such as Caltrans and State Parks.

Primary Question 5. What experience have you had in trying to obtain funding from transportation to develop climate change adaptation projects?

Coastal Conservancy has some experience with this. The key focus has been on access -- trails and bikeways, but mostly trails. They helped MTC administer transportation funding for trails projects, but not for green streets. They are involved in the priority conservation grant program with MTC. There has been one funding round to date. There should be another round reasonably soon. It could encompass urban greening/GI. These are not big programs. The first round was \$10 million. Round 2 will be around \$16 million for entire Bay Areas. They have coordinated with the Caltrans Active Transportation Program. There are programs that fund integrated streetscaping, which can be really complicated. The complications mostly relate to Caltrans Master Agreements, which come with lots of requirements that are not the norm for smaller agencies to address. This can be problematic for cities with limited staff.

Primary Question 6: What are the plans for using the funding from Measure AA?

Improving water quality is a priority. The wording for the Measure calls for projects to be located on the shoreline, although the enabling language did not include that requirement. The Request for Proposals will clarify this point. Coastal Conservancy staff envision projects such as trash capture devices on the lower stretches of creeks. Measure AA will fund significant wetland and bayland restoration. The RFP is anticipated in July 2017, and projects are anticipated to be funded in January 2018.

Primary Question 7. Could you share any success stories on partnering with other agencies to implement multi-benefit projects?

The second round of Climate Ready grants involved a successful partnership with SGC, as discussed in response to Question 2. SGC does not fund permeable paving, so the Coastal Conservancy was able to fill that gap and fund permeable paving. There have been many other successful partnerships with other funding agencies, primarily in the context of multiple funder providing funds for projects, such as the Guadalupe River project, the Richmond Greenway, Napa River, and Napa/Sonoma Marshes.

INTERVIEW RECORD

State Water Resources Control Board

Part 1: Interview Summary

Interviewer Information

<i>Interviewer(s):</i>	Laura Prickett, Horizon Water and Environment
<i>Interview Date:</i>	23 August 2016

Interview Highlights

- Roundtable planners should track the synergies between the Roundtable and SWRCB's STORMS strategy Project 4b, which seeks to eliminate barriers to funding the use of stormwater as a resource. There may be a Project 4b symposium in early 2017 (Question 1).
- One challenge for multi-benefit problems is that there is no agency that is aware of what all the other agencies are doing. This makes it hard for staff from any agency to think on a higher level about how a broader range of funding sources could apply to any particular project. (Question 2).
- One topic to address is to help agencies understand each other's different requirements and how a project might satisfy multiple requirements. Achieving multiple objectives may require modifications of designs (Question 5).
- Another topic to address is regulatory issues/limitations such as requirements for matching funds, bond accountability, or "shovel readiness" (Question 5).

Part 2: Interview Questions and Responses

Question 1: To what extent does SWCRB seek to incorporate in its projects multiple benefits such as urban greening, transportation benefits, and climate change adaptation?

- Both interviewees are in the Division of Water Quality, which is in charge of regulatory oversight. The process to develop the STORMS strategy was a similar process to the Roundtable process. It was a stakeholder-driven process to identify the impediments to using stormwater as a resource, such as funding and regulatory hurdles. The STORMS strategy was put together with an overarching vision to have people come to view stormwater as a resource that can help provide multiple benefits. STORMS identified 23 projects that will lead to this vision. The first is being initiated this year. The following would be of relevance to the roundtable effort.

- The first project, which is being implemented this year, is an overarching project in which SWRCB is identifying impediments to using stormwater as a resource, looking at barriers and how to overcome them.
- Second, there is a project related to funding, which the Division of Water Quality is assisting DFA in reviewing applications for Prop 1 grant funding of stormwater projects with for multiple benefits. They are looking to award the grants in November. DFA has changed the way they work. They used to have applicants apply to grants and loans under each different program. Now applicants just apply, and the staff in DFA will review what their needs are and make recommendations on which grants they qualify for, similar to how college financial aid applications work.
- SWRCB does coordinate grant programs with DWR, so that some grants are administered by either SWRCB or DWR. One of the STORMS strategy projects, Project 4b is to eliminate barriers to funding for using stormwater as a resource. SWRCB will take a model project and consider who the beneficiaries are, and whether there are ways to discuss other sources of funding. There will be potentially be a symposium on this topic in early 2017 – there may be synergies with the Roundtable, it would be a good idea to track this project. DFA staff will provide a presentation on resources available from SWRCB, as well as EPA funding, possibly discuss region-specific funding for different regions of the state.
- Interviewees suggested also interviewing Darrin Polhemus, the Deputy Director for the Division of Financial Assistance (DFA), to hear the perspective of staff involved in the funding of grant projects. They do not know whether DFA has coordinated the funding of projects with any agencies other than DWR.

Question 2: What challenges have you observed in the implementation of projects that seek to achieve multiple benefits?

- Implementers are not aware of the requirements of the various agencies. This is partly due to the implementers not availing themselves of information, and partly due to each agency's limited understanding of other agencies' programs. In the regulatory world, there are consultants who are aware of the regulatory process for numerous different agencies. When it comes to grant funding, there is no agency that is aware of what all the other agencies are doing. Each agency specializes in its own program and does not have expertise in the programs that are managed by other agencies. This makes it hard for staff from any agency to think on a higher level about how a broader range of funding sources could apply to any particular project.
- As an example of the challenged in learning about another agency's grant program, a drinking water program was transferred to SWRCB from DPH. It took a few years of planning meetings just to gain a high level understanding of how to coordinate the transfer of this program. There may be limited understanding among water agency staff of how some of the water programs within other agencies work, but outside the water world (for example, with transportation programs), they are even less familiar with regulatory or grant funding requirements. For all these

reasons, funding agency staff are not adept at providing holistic advice about funding to project implementers.

- Another STORMS project, Project 2a, is aimed at increasing stakeholder collaboration, identifying and promoting ways for other agencies to collaborate on multi-benefit projects. This project may produce templates for partnership agreements among different agencies to facilitate collaboration, and guidance for how to establish partnerships. This is a phase 2 project and will begin in 2019. The six staff members working on the STORMS projects cannot take on all the projects at once.

Question 3: Are you aware of projects that have combined transportation funding with water funding on a multi-benefit project?

- Interviewees could not think of any specific projects. There may be some, but it is not a synergy has occurred frequently. [Note: following the phone interview, one of the interviewees emailed information on an example project, described in Section 3.]

Question 4: Are you aware of projects that have combined climate change, urban greening, and water quality benefits?

- Roughly 60 to 70 percent of the applications for Prop 1 stormwater funding identify urban greening or climate change adaptation as project benefits. Many of these applications are coming from Southern California, where agencies have already developed Watershed Master Plans that have identified these projects. Most of these projects are in the planning phase. There would be fewer such projects that have actually been implemented or constructed.
- Most applicants for Prop 1 stormwater grants that described climate change adaptation benefits are providing additional water supply. Fewer projects indicated there would be flood storage benefits for climate change adaptation. After the grants are released in November, there will be more specific information on multi-benefit projects.

Question 5: What topics would you recommend for agencies to discuss to help encourage and/or fund cross-sector, multi benefit projects?

- Regulatory issues would need to be addressed. Different agencies are administering different laws. For example, the Army Corps of Engineers (ACOE) has an interest in flood control, while SWRCB has regulatory mandates to regarding water quality, water supply, water rights. When agencies are coming from different regulatory frameworks, there can be missed opportunities in planning stage of projects.
- For example, ACOE has traditionally constructed flood control channels to get the water out fast. However, flood control can be managed in an environmentally sensitive manner and can result in co-benefits in which water can be used as a resource. This requires education. It would be helpful to include an educational aspect in the Roundtable, to help agencies understand each other's

different requirements and how a project might satisfy multiple requirements. Achieving multiple objectives may require modifications of designs. There would be learning for all parties.

- In the flood control example, a reservoir could be built, to get the water out of the stream and store it for a while. ACOE has built a lot of these projects. Another method is to take water from the stream and store it in the ground, which has less environmental impact, but there are legal impediments to storing water in ground. One agency spends the money to infiltrate the water, but anyone who wants to can pump the water out – until 2020 when new groundwater requirements go into effect. The Sustainable Groundwater Act is another topic that the Roundtable could address.
- Santa Rosa is doing a lot of work with the US Geologic Service (USGS) on groundwater storage and flood control. They have surface water supplies but lack transmission facilities. For about six weeks every summer, water demand exceeds the groundwater supply. Therefore, they are seeking to capture flood flows in the winter, send the water out to the far areas of the Sonoma groundwater basin, under Rohnert Park, infiltrate the water into the ground, so it will be available for use as local supply in summer. It is a multi-benefit project: flood control, stormwater quality, water supply, and it also benefits fisheries. For more information, contact Jay Jaspers at SCWA.

Question 6: Who would you identify as influential individuals or agencies who should be involved in discussions of funding multi-benefit projects?

- The Association of California Water Agencies (ACWA), CASQA, the Santa Ana Watershed Partnership Agency. Also One Water (OWOW), which is looking at multi-benefit coordinated water uses – Celeste Cantu is the contact person. Also Sean Maguire of DFA. David Smith of USEPA can offer the federal perspective.

Question 7: Could you share any success stories you are aware of regarding implementation of cost-effective multi-benefit projects?

- One of the interviewees offered to look into this, and later followed up by emailing information described below.

Part 3: Opportunities for Additional Investigation

- Following the interview, the following documents were emailed:
 - 2014 Final Project Report for the Gobernadora Multi-Purpose Basin Project of the South Orange County Watershed Management Area State, funded under a Proposition 50 grant agreement with SWRCB
 - 2015 Final Report for the Bijou Area Erosion Control Project, Phase I, of the City of South Lake Tahoe, funded by US Forest Service, California Tahoe Conservancy, CalTrans, Tahoe Regional Planning Agency, State Water Resource Control Board, Department of Water Resources

- Information regarding STORMS projects is provided at the following link: :
http://www.waterboards.ca.gov/water_issues/programs/stormwater/storms/
- Darrin Polhemus, the Deputy Director for SWRCB's Division of Financial Assistance (DFA) may be interviewed to hear the perspective of staff involved in the funding of grant projects.

INTERVIEW RECORD

Strategic Growth Council

Part 1: Interview Summary

Interviewer Information

Interviewer(s):	Kelly Havens, Geosyntec Consultants
Interview Date:	23 August 2016

Interview Highlights

- SGC Multi-Benefit Programs (Question 1):
 - Prop 84
 - Sustainable Communities Planning
 - Urban Greening programs
 - Cap and trade auction funds
 - Sustainable Agricultural Lands conservation program
 - affordable housing and sustainable communities program
- Challenges to multi-benefit projects (Question 2):
 - Determining metrics of planning, success - each sector has its own standards and metrics
 - Additionally, difficult from an operational standpoint for different sectors to be on the same page
- Suggested discussion topics (Question 3):
 - Discuss different terminology so it is understood across sectors
 - Discuss how agencies can agree upon/understand common objectives of multi-benefit projects
 - Discuss funding strings/limitations throughout so they are understood
 - Integrating health benefits with urban greening
- Success stories with multi-benefit projects (Question 4):
 - All programs mentioned in Question 1 are considered multi-benefit/multi-sector success stories
 - SGC itself is a success story – works with 7 cabinet level agencies, 3 public members
 - Agencies are coordinating work on climate adaptation and resiliency, developing an adaptation gameplan and facilitating conversations between stakeholders
- Influential individuals or agencies who should be involved in discussions (Question 5):

- Resources Agency – Claire Jahns
- OPR – Louise Bedsworth
- SGC – Elizabeth Grassi – climate adaptation/ 5-year infrastructure policy adaptation
- CalTrans – Kate White (active on SGC)
- CalEPA – Ashley Conrad – Saydah (deputy secretary)
- CDPH – Julia Caplan - health and all policies program
- State dept of housing development - Linda Wheaton – (inter-agency development)

Part 2: Interview Questions and Responses

Topic: Multiple Benefits

Question 1: What kinds of multi-benefit initiatives, related to green infrastructure, is the Strategic Growth Council involved in?

- SGCs goals – interdisciplinary connection between land use and sustainability
- SGC was involved in 3 Prop 84 Water bond funded programs:
 - Sustainable communities planning/implementation,
 - Urban greening/implementation dollars
- Sustainable Communities Planning:
 - Involves multi-disciplinary coordination among state agencies, but funds local agencies (multi-benefit approach important to program)
 - Planning grant included 90 million for sustainable communities planning (ranged from general needs, modeling support transportation, downtown planning, etc.)
 - Recently have started tracking metrics for indicators to improve or change
 - There must be a green component to all planning
 - 1st round of funding has closed out, 2 rounds still in implementation
 - More project specific funding to come later
- Urban Greening:
 - Includes planning/capital construction
 - Primarily funds local governments and NGOs
 - Projects range from community gardens to green alleyways to larger greening efforts
 - A couple grants were also funded for capital development
- SCG is also involved with:
 - Cap and trade auction funds
 - This is not intended to be a sustainable funding source, as polluters pay a fee to pollute, intent is to reduce incentive to pollute over time
 - Primary objective is greenhouse gas (GHG) reduction
 - Funding source requires ARB guidelines to be met
 - Also requires 25% investment in disadvantaged communities
 - Using CA EnviroScreen tool
- Two programs funded by auction funds:
 - Sustainable Agricultural Lands conservation program

- Provides co-benefits with protection of lands (projects must address multiple benefits)
 - Encourages compact development, close to transit
 - Also provides protection of agricultural lands under threat of development
- AHSC – affordable housing and sustainable communities program
 - 400 million in funding
 - Direct benefits to disadvantaged communities
 - Senate Bill 535 is a driver, requires for disadvantaged communities:
 - Better air quality
 - Affordable housing supply
 - Reducing housing/transportation costs
- Another program SGC is involved in that influences other programs is the Health in All Policies effort
 - Provides holistic approach to health in funding decisions
 - Tries to answer the question - how to make and measure healthy communities
 - Uses social determinants of health as well as impacts from built environment

Question 2: What challenges have you observed in the implementation of projects that seek to achieve multi-benefits (i.e. water quality, flood control, climate change, and/or transportation benefits)?

- Challenge: Determining metrics of planning, success:
 - Each sector has its own standards and metrics
 - Can be challenging with different agencies that may be unused to measuring success by a different metric
 - Makes capturing data and establishing a baseline difficult
 - Often agreeing upon a metric is difficult
 - Often different sectors also have different terminology and definitions
 - Success is measured differently
 - AHSC is one example: housing world has different process than transit world
 - Requires state housing authority to think differently about transportation
- Challenge: Difficult from an operational standpoint for different sectors to be on the same page
 - From an external viewpoint, it is important that those who apply for multi-sector funding understand the different components
 - Example: AHSC – during the first year:
 - Housing focused, but capital transportation projects were required to receive funding
 - However, initial program did not indicate how much transportation was needed; applicants therefore only included nominal investments that wouldn't necessarily change behavior
 - Applicants didn't really think about importance of transportation benefits
 - Lesson learned: program was restructured in 2nd year to try to address this

Question 3: What topics would you like to discuss with policy-level staff from [other] funding agencies?

- Discuss how agencies can agree upon/understand common objectives of multi-benefit projects
- Discuss funding strings/limitations throughout so they are understood
 - o i.e. is the funding reimbursement only, does it require bond accountabilities, is “shovel readiness” needed to fund
- Discuss different terminology so it is understood across sectors
- Integrating health benefits with urban greening

Question 4: What experience have you had in partnering with other agencies to achieve broader implementation of multi-benefit projects?

- All programs mentioned in Question 1 are considered multi-benefit/multi-sector success stories
- SGC itself is a success story – works with 7 cabinet level agencies, 3 public members
 - o The cabinet agencies work together, so staff used to having conversations with others and are committed to bigger objectives
 - Collaboration, discussion when there are differing opinions
 - Decisions are mostly consensus driven
 - o Agencies include: Governors OPR, Cal EPA, State CNRA, Caltrans, Health and Human Services, Food and Agriculture Department, Business Consumer Services and Housing
 - Combined interests in land use development, sustainability, environment
 - o Makes it easy for member agency to get resources and connections needed for a given issue
 - o SGC is in the same building as OPR for instance
- SGC only has 12 staff total
 - o Don’t implement 400 mill programs, but work closely with other departments to implement and work on administration of program
 - SGC – newer agency, has a flexible culture
 - Sometimes have to work with other agencies on culture barriers
 - Less siloed, coordinate with many other agencies
- Agencies are coordinating work on climate adaptation and resiliency, developing an adaptation gameplan and facilitating conversations between stakeholders
 - o Staff all see each other at different meetings with different topics, helps to build relationships

Question 5: Who would you identify as influential individuals or agencies, who should be involved in discussions of funding multi-benefit projects?

- Resources Agency – Claire Jahns
- OPR – Louise Bedsworth
- SGC – Elizabeth Grassi – climate adaptation/ 5-year infrastructure policy adaptation
- CalTrans – Kate White (active on SGC)
- CalEPA – Ashley Conrad – Saydah (deputy secretary)

- CDPH – Julia Caplan - health and all policies program
- State dept of housing development - Linda Wheaton – (inter-agency development)
- Cross-agency discussions work well

Interviewee would be happy to be the SGC lead on the Roundtable.

Part 3: Opportunities for Additional Investigation

Urban Greening Grant: <http://www.sgc.ca.gov/Grant-Programs/UGG-Program.html>

Senate Bill 535: http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201120120SB535

Health in all Policies effort: <https://www.cdph.ca.gov/programs/Pages/HealthinAllPolicies.aspx>

Sustainable Agricultural Lands: <http://www.conservation.ca.gov/dlrp/SALCP>

Affordable Housing and Sustainable Communities: <http://www.hcd.ca.gov/financial-assistance/affordable-housing-and-sustainable-communities/>

http://www.hcd.ca.gov/financial-assistance/affordable-housing-and-sustainable-communities/docs/fy1516ahsc_nofa_final.pdf

INTERVIEW RECORD

Federal Highway Administration (FHWA)

Part 1: Interview Summary

Interviewer Information

<i>Interviewer(s):</i>	Laura Prickett, Horizon Water and Environment
<i>Interview Date:</i>	28 September 2016

Interview Highlights

- Atlanta, GA; New Orleans, LA; and Charles City, Iowa, are using pervious pavement, allowing roads to serve as primary means for stormwater storage and infiltration (Question 1).
- There are innovative examples of post-Hurricane Sandy multi-benefit GI projects in New York (Question 2).
- FHWA policies do not preclude the use of transportation funding to provide GI that is designed as part of a transportation project to specifically benefit the transportation project (Question 4).
- State or regional agencies may exercise discretion on whether to fund GI for a project, if the GI is not specifically required by a permit (Question 4).
- There are no plans to offer a separate funding source for climate change adaptation facilities. FHWA's policy is that climate change adaptation is integral to transportation projects (Question 5).
- The Bay Area Metropolitan Transportation Commission (MTC) has received two FHWA grants for climate change adaptation projects (Question 5).

Part 2: Interview Questions and Responses

Topics: Climate Change Adaptation and Transportation

Question 1: What are FHWA's findings with regard to the use of green infrastructure versus gray infrastructure for climate change adaptation – what types of green infrastructure projects seem to be most promising?

- FHWA recently started a project to evaluate GI approaches for climate changes resiliency of coastal highway assets.
- Coastal resilience was identified for this initial research project, because people see this as most severe problem related to climate change and understand the need.

- A separate research project is anticipated to consider GI facilities designed for highway projects to address climate change adaptation in non-coastal areas. That study is anticipated to address flooding associated with high-intensity storms.
- GI for climate change adaptation of coastal assets is most concerned about protecting assets from storm surges, constructing marshes, berms, sea walls that are natural in nature.
- Some folks in Oregon constructing cobble beaches for coastal resiliency. In Oregon, there are some natural beaches with stones not sand, which tend to hold sand dunes in place. Now Oregon is constructing cobble beaches for the purpose of protecting coastal roads.
- Pervious paving seems to hold some promise for detaining water. Atlanta, GA, is attempting to use pervious paving for stormwater detention. Stormwater is detained in the subbase, where it slowly percolates into the soil. The subbase can serve as storage area.
- In addition to Atlanta, New Orleans, Charles City, Iowa, are both using roads as primary means for stormwater storage and infiltration. The interviewee learned about these examples from a researcher at UC Davis.

Question 2: What synergies are you aware of between landscape-based stormwater capture systems (such as rain gardens) and green infrastructure designs that achieve climate change adaptation?

- With regard to synergies between GI for climate change adaptation and GI for resiliency, FHWA is interested in any GI design that detains water, especially in more urbanized areas. The more urbanization, the more impervious cover, the more runoff, and the faster the runoff moves.
- In addition to detaining and infiltrating water, which offer both water quality and flood control benefits, pervious pavement also helps to reduce the urban heat island effect.

Question 3: Are you aware of projects that provide climate change adaptation benefits, as well as other benefits, such as pedestrian enhancements, urban greening, or water quality treatment of stormwater runoff?

- The best examples that the interviewee is aware of are in New York, following Hurricane Sandy. New York held a design competition to integrate resiliency designs with other objectives. One example is building a park by the waterfront. The park is a buffer that protects inland assets; it is a sacrificial area, meaning it is OK if the park goes under water. Berms can be placed in the park, or enough vegetation to slow the water to protect the inland assets.
- Another example was developed by the Metropolitan Transportation Authority, which operates the subway system in New York City. Some examples of features that address climate change and other benefits include retrofits of subway grates. The grates are normally flush with sidewalk, but in flood prone areas, flows will affect the subway system. MTA needed to provide 6 to 12 inches of elevation around the grates, but the grates are often in the middle of the sidewalk. They developed various approaches to provide multiple benefits -- putting sculptures on the elevated area, or bike racks -- to integrate the elevated areas into the streetscape.

Question 4: There seems to be strict limitations on how transportation funds can be spent – how do those requirements affect the funding of green infrastructure for climate change adaptation purposes?

- The interviewee does not see a problem funding GI if the GI facility is designed specifically for the transportation asset.
- For example, Caltrans has published policy directives stating that designs to address climate change and extreme weather events are integral to transportation investments and can be funded using existing transportation funding sources.
- The interviewee views GI for water quality purposes in the same light – if it is needed to address the water quality impact of the transportation facility, then it should be funded with transportation dollars.
- However, if there is a transportation project that does not have to install GI to meet a specific permit requirement, then the state or regional agency could exercise discretion about including GI or not in the project.
- A state or regional agency could opt to establish policies limiting or excluding the funding of discretionary GI facilities from transportation projects, in view of the limited funding available for transportation and the state’s or region’s transportation needs.
- Even where there are state or regional policies in place that limit GI, there are questions to ask. Are there types of GI that could be funded anyway? For example, pervious pavement is pavement – could pervious pavement be funded, even if there are restrictions on the use of funds for landscaping? Pervious pavement would cost more than standard pavement, but don’t assume it is not covered – make the argument that it works better than standard pavement.
- In the event that a GI facility is designed to benefit areas outside of the right of way, it would not generally be considered integral to the project.

Question 5: To what extent is FHWA planning to provide funding for projects that achieve climate change adaptation goals for transportation infrastructure?

- There are no plans to offer a separate funding source for climate change adaptation facilities. As noted, FHWA’s policy is that climate change adaptation is integral to transportation projects.
- FHWA has funded two rounds of pilot projects for climate change adaptation. The Bay Area Metropolitan Transportation Commission (MTC) was one of the recipients and had projects in both rounds of pilots. The first round of pilot projects (2010-11) was at a much broader level than the second round (2013-15).
- Each pilot produced a report. The interviewer will send a link providing information on the pilot program and MTC’s projects.

Question 6: Are you aware of multi-benefit projects that have combined funding from different sources, such as funding from the transportation and water sectors?

- The answer to this question may depend on how the project boundaries are defined. Transportation projects are often implemented in association with land development. However, most transportation improvements do not seek funding from non-transportation sources.
- After a disaster, an agency could receive funding from FHWA’s Emergency Relief program and FEMA. Funding from the two agencies might be combined to repair highway facilities damaged in the disaster.
- There are also projects that involve coordination between the Army Corps of Engineers and a state’s department of transportation (DOT), for example to work on flood control simulations.

- Assembling matching funds is always a problem. It is typical to impose restrictions on the type of funds that can be used for the local match. There is not much coordination among agencies. Each agency has its own way of doing things. This is just the way things are.

Question 7: What challenges have you observed in the implementation of projects that seek to achieve multiple benefits (i.e. water quality, climate change, and transportation benefits)?

- The interviewer has not been closely involved in multi-benefit projects, however, the incorporation multiple benefits is not new for the transportation sector. It is looked on favorably.
- For projects located in floodplains, note that FHWA has flood regulations that deal with how you can and can't use highways in a floodplain. A highway cannot function as a levee.

Question 8: Which agencies would you identify as influential that should be involved in discussions of funding multi-benefit projects?

- Army Corps of Engineers, especially with coastal and river related issues. The Corps does a lot of work with GI, generally on a larger scale, at the coastal level.
- There is a lot to learn from agencies in New York, such as the New York City Department of Transportation, the local Metropolitan Planning Organization (MPO), and New York City Office of planning. Post-Hurricane Sandy they have done a lot of multi-benefit GI, although the work is still mostly in design.

Question 9: Could you share any success stories from around the country on how local agencies have partnered with federal or state transportation agencies to implement climate change adaptation projects that have multiple benefits?

- FHWA has done a series of 25 climate change adaptation GI pilot projects. Interviewer will send the link to the website regarding the pilot projects. In most cases, it is a transportation agency doing the pilot project, although there may be some partnership examples, such as partnerships between an MPO and a DOT. Also, the NY State DOT did a project in partnership with The Nature Conservancy (TNC).
- Chicago is a leader in implementing pervious pavement projects. Philadelphia has good examples of green alleys.
- A lot of agencies are reluctant to use pervious paving. Pavement engineers are conservative, and don't have money to repave if it does not work. More research and industry standards are needed, in order to see implementation of pervious pavement on a larger scale.

Part 3: Opportunities for Additional Investigation

- FHWA Order 5520 regarding Transportation System Preparedness and Resilience to Climate Change and Extreme Weather Events (Question 4):
<http://www.fhwa.dot.gov/legsregs/directives/orders/5520.pdf>
- FHWA Memorandum on Eligibility of Activities to Adapt to Climate Change and Extreme Weather Events under the Federal-Aid and Federal Lands Highway Program (Question 4):
<http://www.fhwa.dot.gov/federalaid/120924.pdf>

- Description of climate change adaptation pilot projects sponsored by FHWA (Question 9):
http://www.fhwa.dot.gov/environment/climate_change/adaptation/resilience_pilots/
- Final report for the climate change adaptation pilot projects program (Questions 5 & 9):
http://www.fhwa.dot.gov/environment/climate_change/adaptation/resilience_pilots/2013-2015_pilots/final_report/index.cfm
- Stephanie Hom led MTC's pilot climate change adaptation projects (Question 5).
- John Harvey is UC Davis researcher doing research on pervious pavement (Question 1).
- The interviewee would like to be kept informed of roundtable results.

INTERVIEW RECORD

United States Environmental Protection Agency (USEPA)

Part 1: Interview Summary

Interviewer Information

Interviewer(s): Laura Prickett, Horizon Water and Environment
Interview Date: 19 September 2016

Interview Highlights

- The Office of Water is developing an online clearinghouse, which agencies will be able to use to identify funding sources for stormwater projects (Question 1).
- Local agencies often are not aware of all the funding sources that are available; there may be a need to help get the word out, for example, to notify local agencies of funding fairs (Question 1).
- Several states have organizations that bring funders together to think about how to co-fund projects. USEPA's Small Community Water Infrastructure Exchange coordinates with these organizations (Question 2).
- Interviewees were aware of cities such as Lancaster, PA, that have used transportation funding to build GI in public ROW, but did not have specifics on the projects (Question 3).
- Interviewees had not heard reports of local agencies encountering difficulties in assembling funding from multiple sources; however, they have had limited involvement in projects that have used funding from multiple sources (Question 3)
- Agencies with relevant funding sources include the Department of Housing and Urban Development (HUD) and Federal Emergency Management Agency (FEMA) (Question 4).
- Other agencies that fund GI include the US Department of Agriculture (Rural Development program), Army Corps of Engineers (river basin planning), and Department of Defense (DOD) (Base Realignment and Reuse) (Question 5).

Part 2: Interview Questions and Responses

Topic: Water Policy

Question 1: What efforts are being made by the Office of Water to incorporate in the projects it sponsors multiple benefits such as pedestrian and bicycle improvements, climate change adaptation, and carbon sequestration?

- The Office of Water manages the Section 319 nonpoint source grant program. The program addresses nonpoint source pollution; its purpose does not encompass NPDES activities. Many installations of green infrastructure (GI) have been funded as part of demonstration projects; however, due to the focus on nonpoint source pollution, there are fewer Section 319 projects that are located in urban areas. Multi-benefit projects have been developed. Some of the benefits that have been incorporated into Section 319 projects, in addition to water quality, include augmentation of flood control capacity and water course restoration.
- USEPA's Office of Sustainable Communities could provide more information about multi-benefit projects. Clark Wilson would be a good contact.
- Rachel Herbert served as an FHWA liaison to USEPA until recently. That role involves coordination with FHWA on issues related to water quality. This involves a large amount of Office of Water activities, as well as wetlands, stormwater, point source, nonpoint source, and some NEPA – although there is a separate office that focuses on NEPA.
- There is an Urban Waters Partnership, in which USEPA is collaborating with numerous other federal agencies, including HUD, FEMA, and the US Department of Transportation (USDOT). This partnership provides a federal presence in urban watersheds around the country, including the Los Angeles River watershed. The USEPA contact for more information is Surabhi Shah.
- Holly Gallavotti is developing tools that local agencies will be able to use to look for financing. It will function as a clearinghouse, with a user-friendly searchable website for agencies to find funding and financing for stormwater projects. Eventually it will also provide information on funding for drinking water, and wastewater projects; however, resources about stormwater will be included first.
- Many local agencies are not aware of all of the funding opportunities that are available. Funding fairs are organized in different states, but agencies may not always attend. There may be a need to get the word out to more local agency representatives.

Question 2: Based on your work around the country, what challenges have you observed in the implementation of multi-benefit projects?

- Several states have organizations that bring funders together. Local agencies notify the funding organization of the projects that need to be implemented, and funders think about how they can co-fund projects. These funding organizations are included in the USEPA's Small Community Water Infrastructure Exchange (see Part 3, Opportunities for Additional Investigation).
- With multi-benefit projects that have multiple funding sources, this coordination among funding sources is very important. It is important to determine which funding sources can fund specific elements of the project.
- The Clean Water State Revolving Fund program is USEPA's largest source of funding. It has a specific green project reserve. There are a lot of examples of multi-benefit projects, including projects that receive forgivable loans, which function like a grant.

Question 3: Have you become aware of multi-benefit projects that are seeking to use funding from multiple funding programs or agencies – for example, using funds from both USEPA and FHWA? Can you describe an example project?

- Most of this type of coordination appears to be happening at the local level. For example, the Philadelphia Dept. of Public Works is coordinating with the Philadelphia Water Department, Department of Transportation, and Parks Department – together they are trying to figure out where to install GI within the city. Public right-of-way and parks are good places to start because they are in the public domain. GI creates amenities in these areas.
- Washington, DC’s Department of Energy and the Environment is developing public private partnerships – giving developers incentives to manage a public space and put in GI in the public ROW as concession for approving development projects.
- Lancaster, PA used transportation funds provided by the state to fund green infrastructure in the public ROW.
- New York City may also be using some transportation funding for GI.
- There is a lot of GI built in the public right of way in Maryland. Transportation funding may be utilized. Cities in Maryland work closely with offices of sustainability and DOTs to meet GI targets. Interviewees believe some federal transportation funding is being used.
- Interviewees had not heard reports of local agencies encountering difficulties in assembling funding from multiple sources; however, they have had limited involvement in projects that have used funding from multiple sources.

Question 4: Based on your observations of multi-benefit projects, what topics would you recommend for discussion among policy-level staff from multiple funding agencies, to help encourage and/or fund cross-sector, multi benefit projects?

- The health aspect of GI should be addressed, as well as environmental justice, resiliency, and sustainability. Communities need to be shown the benefits of GI to the community, so that they become motivated to support these improvements. Business improvement districts can be created. Economic development agencies are getting involved in supporting GI, because it provides sense of place and aesthetics.
- There are opportunities to work with HUD with regard to funding of development and redevelopment projects, which can incorporate GI.
- There are also opportunities to use flood control funding, such as FEMA funds. Pre-disaster money is for planning, not construction. Disaster response funds can be spent virtually everywhere. For example, FEMA provided \$40 million to CA after a fire, but only a tiny amount of the funds were spent on fire site. More of these funds were spent elsewhere in the state.

Question 5: Based on the multi-benefit projects that you are aware of, what influential agencies or stakeholders do you think we could learn from, or potentially involve in discussions about funding multi-benefit projects?

- Look into USDA funding. Water projects can be funded under USDA’s Rural Development program. USDA has developed a Preliminary Engineering Report template, make it easier to fund drinking water, wastewater, solid waste, and stormwater projects.
- There are areas within the San Francisco Bay Area would that would qualify for funding under the Rural Development program.
- Consider Department of Defense Base Realignment and Reuse funding for areas with base closures. The DOD agencies can be progressive about what will qualify.

- Army Corps of Engineers (ACOE) has substantial funding for river basin planning. ACOE funded efforts can prove to be very effective in river basin restoration.
- Although many projects have been co-funded with various state and federal agencies, it can be challenging to document and quantify the multiple benefits. More progress needs to be made in documenting and quantifying multiple benefits.

Question 6: Could you share any success stories on partnering with other funding agencies to implement cost-effective multi-benefit projects, or offer any final thoughts?

- Funding may appear to come spontaneously to some communities, but that is not the case. A lot of advance preparation often occurs before funding arrives. Communities must position themselves in order to get funding. Make the investment to do advance planning, have projects on the table, ready to get funding.
- To receive some types of funding, you need a plan. This is often a pre-requisite, both for transportation and water quality funding sources. It is worth the effort to pull together shovel ready projects.
- There are some funding sources for planning only. These are worth pursuing, so you can go through the planning process – get a project to 50 or 80 percent design, so you are ready for funding. Communities may not realize this is what they have to do.
- The SRF can be used for long-term planning. All states can use the SRF for planning, some states have more SRF funds available for planning than others.
- USEPA’s Water Infrastructure Resiliency and Finance Center prepared a predevelopment guide, which identifies financing mechanisms for planning activities.
- For more specifics on actual multi-benefit projects that have used multiple funding sources, contact Surhabi Shah and Clark Wilson (noted above), or Abby Hall at USEPA Region 9.
- Keep the Office of Water apprised of progress on the Roundtable. When procedural constraints and barriers are identified, we need to know about them. Depending on the findings, the Roundtable could provide a model for other parts of the country.

Part 3: Opportunities for Additional Investigation

- For more specifics on actual multi-benefit projects that have used multiple funding sources, other USEPA contacts include Surhabi Shah (Urban Waters Partnership) and Clark Wilson (Office of Sustainable Communities), and Abby Hall (Region 9).
- USEPA provided links to the following resources:
 - Information about state organizations that bring together the funding agencies to co-fund projects is at the Small Community Water Infrastructure Exchange web site:
 - <http://www.scwie.org/default.aspx>
 - <http://www.scwie.org/statewide-support-groups>
 - Information on FEMA funding for GI is at the following link: <https://www.epa.gov/polluted-runoff-nonpoint-source-pollution/using-low-impact-development-and-green-infrastructure-get>
 - Federal Guide to Infrastructure Planning and Design: <http://portal.hud.gov/hudportal/documents/huddoc?id=BAInfraResGuideMay2015.pdf>

This Guide describes role of predevelopment activities for infrastructure projects and provides case studies and an extensive list of Federal agency resources.

- Additional information on predevelopment is available at the USEPA Water Infrastructure and Resiliency Finance Center website:
<https://www.epa.gov/waterfinancecenter>

INTERVIEW RECORD

City of Oakland Department of Public Works

Part 1: Interview Summary

Interviewer Information

<i>Interviewer(s):</i>	Kristin Hathaway
<i>Interview Date:</i>	21 October 2016

Interview Highlights

- Non-transportation benefits such as climate change adaptation or urban greening are far removed from immediate transportation goals and are only included in projects occasionally (Question 1).
- Implementation of active transportation projects is hampered by lack of funding, staff resources, agreement and coherent planning. There is a desire for more coordinated planning (Question 2).
- It will be most difficult to include GI in small and medium due to limited funding and economies of scale (Question 3).
- To include green infrastructure, funding is needed for both design and construction (Question 4).
- More guidance and training is needed to integrate GI into our projects (Questions 4 and 5).
- It would be an incentive if transportation grants gave bonus points for GI (Question 5).

Part 2: Interview Questions and Responses

Topic: Active Transportation Projects

Question 1: Are there any non-transportation benefits, such as climate change adaptation or urban greening, that your agency seeks to incorporate into active transportation projects?

- Occasionally. At the project delivery level, those goals and policies are so far removed. Safety and mobility and accessibility are our number one goals. We are tasked with dealing with immediate issues – i.e. traffic improvements at high-priority locations, widening sidewalks, reducing traffic lanes, reducing speeds, traffic calming, pedestrian and bike safety, improving pedestrian accessibility, safe routes to school, etc.

Question 2: What types of situations prevent your agency from achieving even broader implementation of active transportation projects?

- Lack of funding, staff resources, agreement and coherent planning on where projects should go. We have an on-going pool of concepts on where projects should go at various stages of

readiness (concept design, studies, preliminary design, ready to go projects). There is a desire to have more coordinated project planning.

Question 3: What role do you see for urban greening to help achieve success for active transportation projects?

- There's some compatibility but those things are further down on the priority list and add challenges to our project. Unless it's brought in early, it goes beyond what was envisioned in the concept plan. We need to have funding not just to build those elements but to design them. To design them we need guidance and we need the people who are designing our projects trained to understand how to integrate into our projects.

Question 4: What challenges have you observed in the implementation of projects that seek to achieve multiple benefits (e.g. water quality, flood control, climate change, and/or transportation benefits)? What topics would you recommend for agencies to discuss to help encourage and/or fund cross-sector projects with multiple benefits?

- I see bigger challenges for the small and medium sized projects – hard to fit in to minor projects, the challenge is proportionally higher. Large scale projects can integrate green infrastructure much more efficiently. It's an economies of scale issue as well as a funding issue. Even harder to find funding for anything but the basics on small projects.

Question 5: Who would you identify as influential people who should be involved in discussions of funding active transportation projects that achieve climate change adaptation, urban greening or water quality benefits? (MTC contacts?)?

- Funding and programming agencies need to be involved in this conversation. Federal and State grants come through Caltrans. Need to identify who between Washington and Caltrans or Sacramento and Caltrans you talk to. It would be an incentive if transportation grants gave bonus points for GI.
- There's often a disconnect between long-range planning and project implementation. So even if the State is setting these climate change goals/policies, it's left up to the individual agencies to enforce and it doesn't trickle down or get reinforced with those individual agencies.
- Locally more education needs to be translated to the staff who aren't hearing about this through periodic workshops, seminars, etc. Need to make a link between transportation planning and climate change at the local project level, not just at the high level policy level.
- ATP (formerly Safe Routes to School and a number of other programs), might be a good one to talk to. MTC has its own version of ATP.

Question 6: What experience, if any, have you had in trying to obtain funding from water agencies to contribute to a transportation project that achieves climate change, urban greening or water quality benefits?

- No experience with this.

Question 7: Could you share any success stories on partnering with other agencies to implement cost-effective multi-benefit projects?

- Have really only ever partnered with AC Transit on signals/bus stops and with the railroad but these were mainly for similar-goaled projects.

INTERVIEW RECORD

City of Oakland Department of Transportation

Part 1: Interview Summary

Interviewer Information

<i>Interviewer(s):</i>	Kristin Hathaway
<i>Interview Date:</i>	25 August 2016

Interview Highlights

- There is not a clear incentive to incorporating urban greening into a multi-modal transportation project. It creates an unfunded maintenance burden (Question 1).
- If urban greening funds could be used as matching funds for a grant, that would be an incentive to incorporate or prioritize those elements (Question 1).
- Sidewalk greening generates community involvement. It would be helpful to have the greening program canvas a neighborhood and involve residents (Question 1).
- If MTC and ACTC established evaluation criteria for grants that gave points for urban greening, this would incentivize the inclusion of it in projects (Questions 2 and 3).
- Funding is the key obstacle to doing more active transportation projects. The amount of federal and state transportation funding coming to cities has been steadily declining (Question 4).
- Some areas of the city have excess paving. We can consider collaborating on projects that reduce that amount of paving, especially if greening funds can be brought to the transportation project (Question 5).

Part 2: Interview Questions and Responses

Topic: Active Transportation Projects

Question 1: What role do you see for urban greening to help achieve success for active transportation projects?

- There is not a clear incentive or notable benefit to incorporating urban greening into a multi-modal transportation project. It creates a maintenance burden for which there is not funding.
- Transportation money goes into the general fund. Only some of it comes directly back. We get some capital grants but for most part there is not funding for transportation activities. We've been very hurt on our operating budget side. Gas tax has stayed static at \$0.18 since 1993.

- Transportation grants – like other grants – often need matching funds. If urban greening funds could be used as matching funds for a grant, that would be an incentive to incorporate or prioritize those elements.
- If a project is largely about urban greening, it would be something we would prefer for another group to take the lead on.
- An urban greening element to the project would potentially be an opportunity to help involve the community in a transportation project – to help with the community outreach process. Sidewalk greening does generate more community involvement. It would be helpful to have the greening program canvas a neighborhood and involve residents.

Question 2: Who would you identify as influential individuals or agencies who should be involved in discussions of funding multi-benefit projects?

- Folks from MTC and ACTC should definitely be involved in the conversation. If they established evaluation criteria for grants that gave points for urban greening, this would incentivize the inclusion of it in projects.

Question 3: What agencies would you like to partner with to achieve broader implementation of multi-benefit projects?

- MTC grant guidelines need to include points for urban greening elements. That would incentivize transportation projects to incorporate GI. Currently transportation funding doesn't include any incentive for GI/urban greening.
- Also might be a nexus with Safe Routes to Schools projects.

Question 4: What types of situations prevent your agency from achieving even broader implementation of active transportation projects?

- Primarily limited funding. The amount of federal and state transportation funding coming down to cities has been steadily declining. Oakland is on an 85-year re-paving cycle. We currently cannot meet demands with existing funding.

Question 5: What limitations (funding or otherwise) do you have that prevent you from being able to implement urban greening in transportation projects?

- There are many institutional obstacles: we don't do life-cycle costing, there's insufficient (practically non-existent) link between capital costs and operating budgets, there's no money for operating budgets, cannot create costs in one department that benefit another department, we are silo'd and do not think of the city function as a whole.
- It would also be helpful to have standard designs that adhere to the latest ADA regulations.
- On a separate note: We are looking at areas of the City that have excess paving. For example, West Oakland has two times as much asphalt as needed. We can look at opportunities to collaborate on projects that reduce that amount of paving, especially if greening funds are able to be brought to the transportation project.

INTERVIEW RECORD

San Francisco Foundation

Part 1: Interview Summary

Interviewer Information

Interviewer(s):	Laura Prickett, Horizon Water and Environment
Interview Date:	21 November 2016

Interview Highlights

- The SF Foundation is actively seeking GI projects, especially as they relate to job creation (Question 1).
- Since the recent restructuring of the SF Foundation grantmaking approach, the number one priority for GI projects is to create job opportunities. Climate resilience and community benefits are secondary considerations that would add to a project's attractiveness (Questions 1, 2 and 5).
- Bechtel Foundation and Moore Foundation are likely to be interested in GI (Question 6).
- The California Endowment is more concerned with health, including clean drinking water initiatives. Would be less likely to have interest in GI (Question 6).
- SF Foundation would be interested in participating in the Roundtable (Question 7).
- SF Foundation is interested in initiatives to roll out water jobs, including jobs related to both gray and green infrastructure (Question 8).

Part 2: Interview Questions and Responses

Topic: Multi-Benefit Projects and Foundation Funding

Question 1: What kinds of green infrastructure projects has the San Francisco Foundation been involved in?

- We have funded the Watershed Project and Urban Biofilter through our grantmaking.
- We are actively seeking GI projects, especially as they relate to job creation.
- The SF Foundation restructured its priorities earlier in 2016. The interviewee used to manage the environment space, which has now been expanded to the "opportunity" pathway. The opportunity pathway answers the question, what does an opportunity look like in the Bay Area? It is based on the notion that everyone deserves access to opportunity, including a good job that allows them to afford to live in the Bay Area, to afford a home, and to have a good

- quality of life. GI projects could potentially provide jobs. The opportunity pathway also considers sustainability.
- The SF Foundation serves low income communities of color who have been shut out from opportunity. Key barriers to opportunity have been identified as criminal justice and education.
 - Two other pathways that the SF Foundation addresses are “place” and “power.”
 - o The place pathway considers the places where people live, which encompasses belonging and beauty. GI projects would address the Place pathway by providing green space (beauty) and enhancing communities (belonging).
 - o The power pathway considers leadership development.
 - Projects will score better for SF Foundation grants if they have benefits in more than one pathway. GI projects can be expected to have benefits in the opportunity and place pathways, which suggests they are likely to score well.

Question 2: To what extent have you found green infrastructure projects to be aligned with the San Francisco Foundation’s goals and approach for grantmaking?

- We are now in a transition phase, given the new pathways that have been developed, as described in Question 1.
- Formerly whole environment space was around climate change and sustainability. This has not changed completely; climate change is still considered in the opportunity pathway, because it will greatly affect many communities of color. However, job opportunities are the primary consideration in the opportunity pathway.

Question 3: What challenges have you observed in the implementation of green infrastructure projects that seek to achieve multi-benefits (i.e. community revitalization, transportation, flood control, and/or climate change benefits)?

- The interviewee is also familiar with the San Francisco Public Utilities Commission’s (SF PUC) experience with GI. The PUC’s staff engineers have not been trained in operation and maintenance of GI facilities, and there is a need for certifications and training. The agency must consider whether training will be provided on the job, or whether staff will need to receive education at a school. The work force must be trained in how to maintain the technology, and there are considerations about continuing training with regard to potential future changes in the technology.

Question 4: What experience have you had in partnering with government agencies to implement multi-benefit projects?

- The SF Foundation has funded The Watershed Project, which works with the City of Richmond.
- SF Foundation explored doing a project with the San Francisco Estuary Institute (SFEI) was in East Bay, which seemed promising, and would have involved working with local agencies, but the project did not happen. The interviewee did not have information on the actual outcome of that potential project.

Question 5: What aspects of a green infrastructure project would make it more likely to be prioritized for funding by San Francisco Foundation?

- Since the recent restructuring, the number one priority is for projects to create job opportunities. Climate resilience and community benefits are secondary considerations that would add to a project's attractiveness.

Question 6: Could you identify other foundations that may be interested in funding multi-benefit green infrastructure projects? To what extent would these other foundations have different priorities?

- Bechtel Foundation would be interested in GI.
- Moore Foundation may also be interested.
- The California Endowment is more concerned with health, including clean drinking water initiatives. Would be less likely to have interest in GI.
- Caltrans recently issued an RFP for a transportation GI program. Talk to Allison Brooks at the Bay Area Regional Collaborative. The interviewee believes that the Bay Area Regional Collaborative received this Caltrans grant.
- SF Foundation is a community foundation, not a private foundation. SF Foundation has 800 donors.
- SF Foundation's perspective may be different from the perspectives of private foundations.

Question 7: Could you identify a staff person at the San Francisco Foundation who could help represent the foundation perspective in a regional discussion on how to achieve widespread implementation of multi-benefit green infrastructure?

- SF Foundation would be interested in participating in the Roundtable. The interviewee would be the participant.

Question 8: Could you share any success stories on partnering with other agencies to implement multi-benefit projects?

- Currently the SF Foundation is interested in initiatives to roll out water jobs, including jobs related to both gray and green infrastructure.

Part 3: Opportunities for Additional Investigation

Individuals to contact:

- Bechtel Foundation: interviewee will identify a contact person.
- Moore Foundation: interviewee will identify a contact person.
- Allison Brooks at the Bay Area Regional Collaborative could provide information regarding a Caltrans RFP for a transportation GI program.