

# SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION

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February 28, 2014

**TO:** All Commissioners and Alternates

**FROM:** Lawrence J. Goldzband, Executive Director (415/352-3653 lgoldzband@bcdc.ca.gov)  
Sharon Louie, Director, Administrative & Technology Services (415/352-3638 slouie@bcdc.ca.gov)

**SUBJECT: Draft Minutes of February 20, 2014 Commission Meeting**

1. **Call to Order.** The meeting was called to order by Chair Wasserman at the Ferry Building, Port of San Francisco Board Room, Second Floor, San Francisco, California at 1:07 p.m.

2. **Roll Call.** Present were: Chair Wasserman, Vice Chair Halsted, Commissioners Addiego, Bates, Chan (represented by Alternate Gilmore), Chiu, Cortese (represented by Alternate Scharff), Gibbs, Gorin, Hicks, Lucchesi (represented by Alternate Pemberton), McGrath, Nelson, Pine, Randolph, Sartipi (represented by Alternate McElhinney), Sears, Spering (represented by Alternate Vasquez), and Vierra (represented by Alternate Doherty).

Chair Wasserman announced that a quorum was present.

Not present were: Association of Bay Area Governments (Apodaca and Techel), Department of Finance (Finn), Contra Costa County (Gioia), Governors Appointees (Jordan Hallinan and Zwissler), Napa County (Wagenknecht) and U.S. Environmental Protection Agency (Ziegler).

3. **Public Comment Period.** Chair Wasserman called for public comment on subjects that were not on the agenda. Comments would be restricted to three minutes per speaker.

Seeing no speakers, Chair Wasserman moved on to Item four, Approval of Minutes.

4. **Approval of Minutes of the February 6, 2014 Meeting.** Chair Wasserman entertained a motion and a second to adopt the minutes of February 6, 2014.

**MOTION:** Commissioner Vasquez moved, seconded by Commissioner Addiego, to approve the February 6, 2014 Minutes. The motion carried by voice vote with one abstention by Commissioner Gorin.

5. **Report of the Chair.** Chair Wasserman reported on the following:

a. **New Business.** Does any Commissioner have any new business they would like to propose that we consider at an upcoming meeting? Chair Wasserman received no comments.



*Making San Francisco Bay Better*

**BCDC MINUTES**  
**February 20, 2014**

b. **Next BCDC Meeting.** Our next regularly scheduled meeting will be held on March 6th, here at the Ferry building where we expect to take up the following matters:

- (1) A public hearing and possible vote on the Bruener Marsh Restoration Project in Richmond.
- (2) A briefing on planning for the San Francisco Waterfront.
- (3) A briefing on the Department of Fish and Wildlife's Napa Pond Trail Project.

A briefing on the San Francisco Bay Restoration Authority and its potential plans for a parcel tax. At this moment it is our guess that we will not have enough business to have a meeting on the 20<sup>th</sup> but we will let you know that as soon as we can. I mentioned at the last meeting that some of you were going to be at the kickoff for the Climate Resiliency Institute. It was attended by about 70 people. This is a joint effort by the University of California, Berkeley, University of California, Davis and Stanford. We have good participation from many sectors including state government. We all know that there is additional study that needs to be done in climate resiliency but hopefully this will focus on potential positive and productive actions. We will keep you informed. That ends my report.

c. **Ex-Parte Communications.** Are there any Commissioner who wish to put ex-parte communications on the record. These are on permit matters not policy matters. Chair Wasserman received no comments.

I have one other thing. I want to recognize a visitor from Taiwan from the National Cheng Kung University who is studying BCDC as an institution and what lessons it may have for Taiwan. We welcome Yung-Nane Yang.

**6. Report of the Executive Director.** Executive Director Goldzband reported:

As I get older I recognize that Cormac McCarthy was right – we remember what we want to forget, and we forget what we want to remember. Therefore, I urge each of you in the strongest possible terms to forget that your FPPC Form 700 is due at BCDC on April 1st, exactly forty days from today. We look forward to receiving each of them on time.

As I told you two weeks ago, BCDC will participate in the California State Senate Budget Committee's prehearing conference. Its staff and members want to hear about what we're doing to further work on shoreline resilience on behalf of the Bay area. Legislation will be considered by the Senate this year to provide direction regarding that work on resilience and rising sea level. The budget prehearing has been set for March 7. Unfortunately, I shall be in Washington, D.C. that week representing BCDC as a member of the Coastal States Organization and at a series of meetings held by NOAA, which I must attend as a condition of NOAA's grant making to BCDC. Steve Goldbeck will ably represent BCDC at the budget prehearing and will fill in for me during the week of March 3, including at our March 6 BCDC Commission meeting.

Continuing to talk about the Legislature, I want to let you know that the Executive Directors of the JPC agencies will meet with Senator Mark DeSaulnier at his request next Wednesday afternoon. Senator DeSaulnier's SB 792, now pending in the Assembly, lays down a series of requirements that the JPC must meet for its next Sustainable Community Strategies. The bill is quite prescriptive and, in some senses, tremendously duplicative of current practices. In addition, to be moved out of the Senate Appropriations Committee, it was stripped of the requirement for BCDC to lead planning to address rising sea levels in the next Sustainable Communities strategies and also the provision to require BCDC to move to the new Regional Headquarters on Beale Street. That is because these provisions would have required state funding in last year's tight budget

environment. We look forward to discussing the legislation's future with Senator DeSaulnier. Clearly, unless otherwise directed, BCDC will continue to work with our partner agencies to prepare a shoreline resilience plan for the Bay Area, whether or not such activity is authorized legislatively.

Directly after that meeting ends, I'll hustle over to the Little Hoover Commission's offices to participate in a roundtable on laws and policies regarding the use of risk assessments due to rising sea level. The Little Hoover Commission plans to issue its report this spring on how California should reorganize its governmental functions to address rising sea level and we shall keep you up to date on its progress.

Finally, some happy news: On Thursday, February 27 (one week from today), The Aquarium of the Bay will host a celebration of the 25th Anniversary of the founding of the San Francisco Bay Trail. The celebration, which has an entry fee of \$10, will be held at the Bay Model in Sausalito and will start at 5:30. The speeches start an hour later.

That completes my report, Mr. Chairman and I am happy to answer any questions.

Chair Wasserman stated: Do any Commissioners have any questions for the Executive Director?

7. **Consideration of Administrative Matters.** We've been given a summary of those. Bob Batha is here to answer any questions. Hearing none we will move on.

8. **Staff Recommendation on a Contract with the National Oceanic and Atmospheric Administration on the Climate Policy Implementation Project.** Chair Wasserman announced: Item 8 is consideration of authorization to enter into a contract with National Oceanic and Atmospheric Administration regarding the Climate Policy Implementation Project. This is a consideration of a contract with NOAA to fund preparation of guidance and regulations to build capacity among BCDC permit applicants, BCDC staff, the Commission and the public, to understand and comply with BCDC's 2011 climate policies. Lindsey Fransen will make the staff presentation.

Ms. Lindsey Fransen presented the following: The staff recommends that the Commission authorize the Executive Director to contract with the National Oceanic and Atmospheric Administration for up to \$193,963.00 for the Climate Policy Implementation Project and any subcontracts necessary to carry out the grant.

This project will build capacity among permit applicants, BCDC staff, the Commission and the public, to understand and comply with BCDC's climate policies that were adopted in the fall of 2011.

The policies introduced new requirements including, in some cases, the need to conduct risk assessments, design projects that will be resilient to sea level rise and develop and implement adaptive management strategies.

In particular, the grant funding will support Commission staff and subcontractors in completing the following activities:

- (1) Producing a guidelines publication for use by project applicants, BCDC staff, the Commission and the general public that provides guidance on risk assessment approaches, resilient design and adaptive management strategies;
- (2) Conducting a public outreach effort including a stakeholder advisory panel, public workshops and material on BCDC's website such as summary translations of the guidance in non-English languages;
- (3) Amending the Commission's regulations to specify new information that will be needed in applications based on the new climate policy requirements and;

(4) Updating the Commission's permit application instructions to assist applicants in providing the information that will be required pursuant to revisions to the Commission's regulations.

The funding will be primarily for staff costs with a minor amount for contractual services for graphics, document production and translation.

The staff recommends that the Executive Director be authorized to execute any amendments to the contracts that don't alter substantially the scope or amount of the contracts.

Chair Wasserman continued: Any questions from the Commissioners? I have some comments.

One, I think this is an important part of our continuing outreach in figuring out how to educate the public. I do want to note a meeting with NOAA where I became aware earlier this week that the Hayward Recreation and Park District is conducting a series of public outreach activities on rising sea level.

This coming Saturday at 2:00 at the Castro Valley Library they're putting on a presentation about it. It will be a good example of some of the things that we are going to undertake through this grant and many of our other efforts in the coming months and years.

With that, we have no comments from the public. I would entertain a motion on the staff recommendation.

**MOTION:** Commissioner Nelson moved this item, seconded by Commissioner Gorin. The motion passed by a show of hands with no abstentions or opposition.

Executive Director Goldzband commented: This is a color version in draft form of the Strategic Plan which you just approved last year.

This project goes directly to Goal 3, Objective 3 of that strategic plan which reads: "Documents best practices and create better ways to ensure efficiency, integration, transparency and consistency across regulatory planning and administrative operations."

What we're doing within BCDC with these funds are literally putting together in integrated fashion the regulatory and planning folks to make sure that we consistently over time look at and provide consistent guidance transparently to applicants as we move forward.

That is an example of how we're trying to begin to and continue to break down some of the stovepipes. Staff needs to be congratulated on this.

We will proceed to Item 9 which is a briefing on safeguarding California by Natural Resources Agency Deputy Secretary for Ocean and Coastal Matters, Catherine Kuhlman. Ms. Kuhlman will bring the Commission up to date on the California's State Adaptation Strategy which is titled, *Safeguarding California* currently in its draft form but moving forward to finality.

**9. Briefing on Safeguarding California.** Catherine Kuhlman addressed the Commission: I am the Deputy Secretary for ocean and coastal matters and I'm also the Executive Director for the Ocean Protection Council.

The Ocean Protection Council was created to herd state agencies towards consensus on important policy issues. On the Council sits the Secretary of Resources, the Secretary for Cal EPA, and in alternating years, either the Lieutenant Governor or the Comptroller. We also have two public members appointed by the Governor and then ex-officio members from each of the legislative houses.

It's a place for high level discussion of how we can work together as a state. It's a place to come together and have conversations to try to have a consolidated voice.

I want to acknowledge Abe Doherty who is on the Ocean Protection Council staff and is our climate change person. I also want to thank Anne Chan who is my colleague at Resources who is the Deputy Secretary for climate change and the Assistant Deputy Secretary Amber Perris, both of whom are the primary authors of the coastal chapter of this document.

I am not a climate scientist. This topic is really important to me as my life's passion and work has been to improve and preserve aquatic resources and the land they connect to.

My days are dedicated to preserving and restoring our natural environment while allowing our state and local economies to thrive.

Our world is changing. The rules that we used to play by aren't working for us any longer. It's changing quite rapidly.

How we respond is critical. That is why this document, Safeguarding California, is important to me and it's important to you as well.

In addition to impacts that are already occurring, additional risks to California's people, economy, infrastructure and natural resources are projected.

Taking steps to prepare for these risks in combination with efforts to reduce the emissions that cause climate change can reduce the magnitude of impacts and help create more resilient and sustainable communities.

The first draft of the safeguarding plan was released on December 10<sup>th</sup> and will be out for public comment until February 28<sup>th</sup>. This draft plan lays out early actions on climate change impacts that will make a major difference in California's ability to cope with a rising sea, extreme weather events and other impacts.

I do want to emphasize that the Safeguarding California Plan does not replace the 2009 plan that was put out by the state but builds upon it and integrates those strategies.

The final plan is expected out by late spring of 2014.

As many of you know, California is already taking aggressive action to reduce greenhouse gas emissions. But no matter how quickly we reduce our climate-polluting emissions impacts will still unfold as a result of emissions that have already occurred.

Bigger and more intense wildfires, floods, severe storms, severe heat events are already occurring and are going to increase in frequency.

A lot has happened since 2009. This is another reason we felt the plan needed to be updated. Science is evolving. Our understanding of climate risks continues to evolve and improve.

In addition to the science, state departments, agencies, local government and other partners around the state have been exploring and refining management strategies to prepare for climate risks and to build resilient communities.

There are an incredible number of innovative and creative partnerships and projects that have been blossoming in the last couple of years.

Many of you work for local government which will take the leadership role on the ground in response to climate change. You also sit on an innovative commission that is one of the thought and action leaders in the state and in the nation.

While we have an impressive record as a state on what we've been doing, we're at a pivot point where we need to up our game if we want to respond to the threat that is in front of us. We hope that Safeguarding California, the plan, will be a step forward in that direction as well.

I want to touch on how the plan fits into the broader scheme of the way we think in Sacramento. The Governor's Office of Planning and Research has been leading the development of the environmental goals and policy report.

We think of this as the umbrella that encompasses the state's vision and goals for addressing our changing future.

Underneath this umbrella are prongs for how we can implement that vision; reducing emissions through the AB 32 Scoping Plan, preparing for impacts with the Safeguarding Plan and a research plan to inform future science needs.

The Safeguarding Plan is an element of a larger statewide coordinated effort and vision for responding to climate change.

The document is organized around nine sectors, two more than from the 2009 report. Emergency Management has been added as its own separate chapter and energy and Transportation were one chapter and they have now been split apart.

There is a concerted effort to focus on cross-sector priorities and coordination. You will see that reflected throughout all the chapters with cross referencing and links between sectors. This is an area where we're going to get a lot of comments because there are a lot more links that can be made.

We also added in first-person narratives which offer different perspectives on climate risks and in some cases provide a more personal story and put a face on the changes that we as Californians are facing.

It also highlights a number of exciting projects that have been coming along in the last few years. There are also a number of sector-specific climate change efforts that have been going on.

One of these is the state sea level rise guidance document. Another one is the California Department of Public Health's department Extreme Heat Guidance. There has also been a real lift in work on emergency preparedness planning.

All of these state efforts weave together along with the Safeguarding Plan as part of a coordinated response to climate change.

Implementation of these efforts depends heavily on collaboration and engagement of a wide variety of partners.

The cross sectors are: to integrate climate risk considerations in all government functions, protect vulnerable populations, identify significant and sustainable funding to reduce climate risks, support research and data tools to inform decision, maximize returns on investment by prioritizing projects that have multiple benefits towards the goal of sustainable stewardship of resources, prioritize climate risks, communication, education and outreach and promote collaborative and iterative processes to refine risk management strategies.

I will now discuss the ocean chapter of the document. At this point the chapter highlights impacts to the ocean and the coast. It was concluded that with a four foot sea level rise, the counties with the largest total exposed populations include the Delta counties, San Joaquin second, Sacramento fifth and Solano tenth.

The chapter also highlights the effects and actions around increasing ocean acidification and growing areas of hypoxia and some of the efforts around study and management efforts towards dealing with those issues.

Most importantly, this chapter focusses on areas for action.

This is the series of actions outlined in the Plan: we need to refine our problem statements, we need to dial in on both sector analysis and then integrate those sectors at a regional or local scale. BCDC's ART Project is a great example of this.

There are a series of recommendations to help us withstand and recover from climate change, notably, innovations around design and BCDC's work with the Dutch and your international design competition are great examples.

Hazard avoidance and a robust and well-coordinated emergency response are critical.

And lastly, the opportunity that we have in the Bay around a living shoreline project and the innovative techniques generated to protect our natural resources is a key to our success.

We are very interested and want to be a leader in improving management practices for our natural world. We want to invest in green infrastructure. We want to address climate impacts through using our coastal zone. We want to support integrative ecosystem approaches to ocean resources. And we want to continue to develop the State Sediment Management Master Plan and have water-management policies that are responsive to sea water intrusion.

Another recommendation is to have the Ocean Protection Council with our partner Ocean Science Trust facilitate an inventorying of what projects and actions are already at play to reduce risks for sea level rise, storm and storm surges and erosion in an effort to help all levels of government and private partners move more quickly and effectively to act to reduce risks.

Another set of actions looks at the impacts and opportunities associated with offshore renewable energy, the tradeoffs that relate to that.

And how can we effectively work with FEMA to change and modify the Federal Flood Insurance Program to help us deal with sea level rise and flooding inland as well.

We're also recommending investment in tools to help us effectively communicate the best available science and information so it can be taken up into the decision-making process more quickly and effectively.

I want to end on the note that we have one of the nation's top coastal zone management programs of which BCDC is a key player. Along with your executive team we've been meeting with State Lands and the Ocean Protection Council and coming together as ocean leaders at that executive level is an opportunity to talk through policies in a way that harmonizes the work that we're doing. Which also gives us a more powerful voice when people ask, well, what does California do and what does California think about sea level rise? We're able to respond with a more thoughtful and rich response because it incorporates a larger and more complex view.

We think that by doing this we will be able to improve our dialogue both internally within the state as well kicking it up a notch with D.C.

Our timeline started in July with the first document out with listening sessions in 2013 and we're going to be concluding in the spring of 2014 with a final document.

I and Abe will take any questions that you might have.

Chair Wasserman requested Commission input: Questions or comments from the Commission?

Commissioner McGrath had comments: I'm on the Regional Board and each year we get together in a session where all the regional board members are invited.

One of the things in this year's presentation is the commitment throughout the current administration for breaking down stovepipes and integrating policies. This is a wonderful trend and it's a better way to do things.

Commissioner Nelson stated: When the President was out in California a couple of weeks ago he announced that he was proposing a billion dollar climate resiliency fund. Do you know yet enough about the federal proposal to know how the state's effort is going to dovetail with that?

Ms. Kuhlman responded that she did not have the information and asked Mr. Doherty if he had any information he could share.

Mr. Doherty commented: I haven't heard any more details in terms of the fund. We are going to be considering that carefully because it is critical to think about, how do we get resources for California. There was a 2011 coastal climate needs assessment for the state and it showed that the top two barriers to acting on sea level rise is lack of funding and lack of staff. We're really trying to address that issue.

One of the projects that we're working on is building a portal that will support finding funding sources for sea level rise projects that will include an R.S.S. feed directly from the federal grants.gov for federal funds that are available for local governments and others.

Executive Director Goldzband added: When Margaret Davidson was visiting with us on Friday and she is the Acting Director of the Ocean and Coastal Program through NOAA, she did not have any details with regard to how the money would be parsed.

Ms. Kuhlman commented: One of the things that is important with that is that Governor Brown is one of the representatives on the President's Task Force dealing with adaptation and climate change. We're doing a lot of work with trying to pull together information that is still pretty much in the process of being completed.

Some of the things that you see that are called for in the Safeguard Plan are things that are actually already underway but aren't done yet that we hope to bring to conclusion and then feed into that dialogue which would go back to some funding.

Commissioner Nelson joined the conversation: Quite a bit of comments and issues coming out of the federal administration that focused on cities are really taking a lead into climate adaptation work. It is tremendously important.

The Bay Area is a good example of the fact that you can't plan for resources on the basis of political jurisdictions. It would be nice to see efforts that were not just focused on helping cities adapt but picking key resources around the country, and the Bay is one of a number of places that might be candidates.

Chair Wasserman made additional comments: Overall, I think this is a great document and I appreciate the difficulty of herding cats. In the sense of trying to integrate and focus some concrete efforts, this is a very good document.

There is a provision in the document that should give this Commission pause. It's on page 173 in the section, Hazard Avoidance for New Development. The first sentence none of us would disagree with, in order to minimize the adverse effects of sea level rise and storms it is important to carefully consider decisions regarding areas vulnerable to flooding, inundation and erosion. The next sentence has a word in it which I believe causes a significant, potential problem for this Commission; the state should not build or plan to build, lease, fund or "permit," that's the word, any significant new structures or infrastructure that will require new protection from sea level rise, storm surges or coastal erosion through an expected life of the structure beyond routine maintenance of existing levees or other protective measures. And then the next difficult words, unless there is a compelling need consistent with the public trust doctrine and existing law, e.g. coastal-dependent marine terminals or marinas that must necessarily be sited in areas at risk. If the

state is building or planning to build, lease or permit structures that will require additional new expenditures for sea level rise protection during the expected life of new structures, the state should ensure that the project proponent does a series of things which are absolutely reasonable and fully consistent with our Bay Plan Amendment.

The concern that I have is, we're a state agency. And that word "permit," I believe, when you say permit only with a "compelling need" is a different standard than is contained in our current regulations or in the McAteer-Petris Act.

One can argue that it is not totally dissimilar but it is different language. It is much stronger language. This is only a guidance document. So even if this becomes final it does not mean that we have to change our practices or have to change our regulations. Nonetheless, this is state guidance from some of the highest levels of state government and I think there needs to be some extensive additional dialogue over wording. It is wording. Wording is important here.

I think there is an accommodation that can be reached. I will say that if this were adopted into law we would really become the San Francisco Bay Conservation Commission.

I know there are a number of people around these tables and in this room who take some pride that it is a balance between conservation and development.

The dialogue has started. We will get some very direct comments in. Staff has had discussions with the Coastal Commission who would be similarly affected but may have different issues and they come at it in a different perspective than we do.

I raise this for any comments the Commissioners may have and to make very clear to Kat who I think does understand the issue. This dialogue needs to continue and this can have some fairly serious effect.

Commissioner McGrath commented: While I may not agree a 100 percent with the comment, I do think, having sat for weeks in a series of meetings on the language on the Bay Plan Amendment that sometimes language that is overly simplistic inflames rather than informs.

In fact, there are places where we have committed to development in places that perhaps we should not have. To try to protect every area that may have inappropriately been developed or to retreat from every one is perhaps equal folly. I think the feasibility in long-term sustainability, both environmentally and economically, is a more nuanced way of looking at that.

I'm not going to argue that we should retreat from the shoreline in San Francisco where there was once water. Trying to say that we shouldn't protect this resource would not be wise policy.

So I do think that a better explanation, if an aggressive policy sought, is both wise and politically wise.

Commissioner Randolph added: I would support the Chairman's remarks. Those of us who were on this Commission a couple of years ago when the Bay Plan Amendments around climate change were being considered will remember that we deferred adoption of the plan for over a year because of the intense reaction that we had from other regulatory agencies in the region; but especially from the business and the development community who were very, very concerned at what they saw as prescriptive language that would presumptively preclude development in potentially vulnerable areas.

So there was a great deal of negotiation going on with friends in the environmental community and the business community to reach the language that we did reach which was a successful accommodation. The Commission adopted that language unanimously. It wasn't perfect for anybody but it did reflect the reality of the development and the conservation themes at the Commission.

I think we should be very, very cautious about adopting language that is not developed by a consensual dialogue with the business and development community, otherwise, you get the high risk of conflict down the road.

It is much better to have a dialogue early on and take those considerations into account where whatever language is ultimately adopted it is not interpreted as being, per se, proscriptive of development in potentially vulnerable areas.

Chair Wasserman added: This is not the beginning but it is also not the end of this dialogue. Staff will continue working in close interaction with the Secretary and the Governor's Office on these issues making clear that the Commission has not taken action and we're not asking for that.

Commissioner Scharff asked: Do you think we should, at some point, take a position and say, we support the vision of your remarks there and we would communicate that as a body?

Chair Wasserman responded: If we're all really successful in working together, the Commission probably won't need to take any action. If we're not, the Commission may well need to some take action. It is not an action item on today's calendar.

That brings us to Item 10.

**10. Briefing on the Bay Delta Conservation Plan.** Chair Wasserman explained: Item 10 is a presentation by the Department of Water Resources Deputy Director Paul Helliker. Mr. Helliker will brief us on the Bay Delta Conservation Plan, commonly known as BDCP, and its implications for restoring the Bay-Delta ecosystem, fresh water inflow to the Bay, wetland restoration and managed wetlands in the Suisun Marsh. Joe LaClair will introduce the topic.

Chief Planner LaClair commented: The staff mailed the Commissioners a briefing report in advance of today's meeting that lays out the communications that the Commission has had in the past on water issues, as they pertain to the Delta.

It outlined some of the issues and questions that you may want to consider at the conclusion of the briefing that are related to the policies that you have with regard to freshwater inflow into San Francisco Bay as well as ongoing management of the Suisun Marsh and water quality issues there.

Mr. Paul Helliker addressed the Commission: With me today is Dr. David Zippin. He is the BDCP Program Manager at the ICF International. He'll join us up here if we have some questions that we can answer for you.

California has probably the most comprehensive water system in the world. We have six major projects that operate throughout the state, one of which supplies this area, one of which supplies the area right across the Bay. But the one that we operate is the State Water Project, and it has Oroville as its major reservoir and the California Aqueduct as our major transmission system.

The Central Valley Project also is a significant component of water supply in California. We both share the facilities in the Delta. Because of this, we look at the Bay / Delta as the hub of the infrastructure for this largest, publicly-built and operated system in the world.

We serve 25 million people with water from the Delta, two-thirds of the state. We also serve three million acres of agriculture with water from the Delta and that produces about 400 billion dollars of economic activity in California from a variety of different crops.

The Delta is the center of this and some of the challenges that we are going to be dealing with in respect to water in California really come to the fore in the Delta.

First of all, as we've seen this year, from the snowpack predictions, this was supposed to be happening 50 years down the road but we've seen very little snow and rain. The snowpack is around 10 percent of normal today. 2013 was the driest calendar year on record and we're now starting into 2014 as the driest water year.

Besides climate change and the different hydrology that we're going to be seeing; one of the other issues that we have to deal with involving climate change is rising sea levels. Right now Delta islands are significantly subsided, mainly in the central part of the Delta. The peat soil that has been the source of so much agricultural production has, over the past 150 years, evaporated into the air through the agricultural production that has transpired in the Delta.

In some cases the islands are 20 to 25 feet below sea level. The levees that were built there were never really engineered to be dams, holding water back 24 hours a day, seven days a week. They do a pretty good job of that most of the time but in the case of a major disaster we'd see all that empty space on those islands filled with water.

If it's a big storm it might be filled with freshwater but once the storm passes we'll likely see water from the Bay coming in, which would make the water in the Delta completely unusable for any kind of municipal supply or agricultural supply.

Over the past 75 years the levees have been breached a number of times causing flooding. This is not an unusual occurrence.

An earthquake on the Hayward Fault could pose a significant challenge the stability of those levees. There is a 64 percent chance of a major earthquake in the next 50 years or a storm that could be a significant risk for those levees.

Subsidence is a big issue. The risks associated with earthquakes, climate change and threatened and endangered species are ongoing problems in the Delta.

One of the things that my part of the organization is responsible for is for restoring 8,000 acres of wetland habitat in the Delta. We're starting that project and that will be subsumed into what we are proposing in the Bay Delta Conservation Plan.

The Bay Delta Conservation Plan is a habitat conservation plan (HCP). The Fish and Wildlife Service and the National Marine Fisheries Service now have in their hands our application for a habitat conservation plan, which formally under the Endangered Species Act is a permit for incidental take under Section 10 of the Act.

The HCP would be for all of the activities that we're proposing in the Plan.

Also, under the state Natural Communities Conservation Plan, it would be an NCCP under that act as well. The California Department of Fish and Wildlife would issue that permit.

The permittees would be our Department, the Department of Water Resources, various contractors who would be buying water from that project and then the Bureau of Reclamation is also a candidate for being a permittee for functions that they would perform in the Delta and changes that they would make to their operations.

We have a variety of different covered species, Chinook Salmon, smelts, green and white sturgeon and we also have a number of terrestrial species; 56 altogether are covered by the Plan. We think it's the most comprehensive plan that we've ever come up with for the Delta.

The purpose of the Plan is to provide benefits for those species not only to prevent further jeopardy but also to provide for their recovery into the future.

One of the key components in the Plan is Conservation Measure 1, the Plan has 22 different conservation measures to meet the biological goals and objectives that we've defined, (over 200 of those) but Conservation Measure 1 is a conveyance facility that would take water from the north

end of the Delta and deliver it to the pumps at the south end of the Delta. Currently, the water flows from the Sacramento River through various channels through the Delta and then down to the pump stations that are down in the southern part of the Delta.

Chuck Bonham, the Director of the Department of Fish and Wildlife says that “whenever he is out talking about the Bay/Delta Conservation Plan that different ways of conveying water around the Delta have been on his department’s priority list since the 1960s.” There has been a general recognition for many, many decades that the way we’ve moved water through the Delta doesn’t provide benefit for the ecosystem and it doesn’t provide water supply reliability for people that use that water.

New conveyance is a principal component of the Plan. It was originally scoped prior to 2012 as a 15,000 cubic-foot-per-second facility with five intakes. In 2012 when we were going through the process of analyzing this and discussing it with the fisheries agencies they let us know that it was a little big for what they thought would be permissible. The current version, which was adopted in 2012 as the proposal is a three-intake facility that would take water down three tunnels to a reservoir at the top end of the Delta and then deliver it through two large tunnels via gravity flow down to the Clifton Court Forebay area in the south part of the Delta.

Currently, the fish screens that we have on our pumps are at the end of dead-end channels. They’re actually pretty good collection facilities for fish, but those fish don’t necessarily all survive the trip from the screen to the truck and back up to the Delta. We do find that those that get chauffeured that way, especially the salmon that come in from the San Joaquin River, have been demonstrated lately to have a higher survival rate for those salmon that come over to the screens that the federal government operates and then get trucked to the Delta than those that try to wind their way through all of the channels making their way out to the ocean through the Delta.

The two large tunnels would be 40 feet in diameter running for 30 miles. Because of the gravity flow, our power consumption is relatively low. That’s one of the things that we looked at trying to achieve in the greenhouse gas emission reduction component of this project.

Most significantly, I think you need to understand that it’s not an isolated facility that will be the only way that water is delivered. It will continue to be delivered from the south part of the Delta as well as deliveries from the north part of the Delta.

And the reason for that is that we’re looking for a better system that will give us more flexibility. Last January, we were starting to reach numbers of smelt being entrained and taken at the south Delta pumps that were reaching our limit for that year.

In November or December we had a lot of rainfall and that brought a lot of flow, but also a lot of turbidity into the Delta. Smelt like to move upstream whenever there are turbid conditions because it’s good for cover for them.

They moved into the Delta and then they got transported down to the south part of the Delta and then they started spawning down there. We started catching fish at the Delta pumps and had to ratchet back on operations to avoid entraining a lot of smelt that year.

Had we had the tunnels in place it would have given us the flexibility of being able to take advantage of those large flows. We would have loved to have had a big gulp then, but we didn’t have the ability to do so because of the smelt conditions that were in the Delta.

Besides the 2012 conversation that we had with the fisheries agencies, we have had lots of conversations with our friends in the Delta. Some of them have told us that they’d really prefer not to have their house or packing shed covered by tunnel materials.

We have modified the alignment. It used to run under Walnut Grove, under the Sacramento River in a couple of locations. We've moved that portion of the alignment east and now it runs under properties that we own and Nature Conservancy owns. It's a lower impact on some of the properties in the Delta.

We have heard concerns about impacts on crane habitat on Staten Island. Our commitment there is that we're not going to have any reduction in crane use days on Staten Island.

We reduced the Forebay that would be up in the north part of the Delta. We also moved it further south to get it away from a couple of communities there. We've reduced the size of the buildings for the pump stations so that they're more consistent with the sizes of buildings that are in that neighborhood.

Right now, the bulk of the flow in and out of the Delta is tidal action on orders of magnitude greater than the inflow from tributaries. The net flow is what is mostly of concern because that's what determines fish migration patterns.

Today we're running at minus 4,000 or minus 5,000 cubic feet per second at Old and Middle Rivers. That means that the pumps are operating in such a volume that it's actually pulling water from the middle part of the Delta towards the pumps so that the net flow of water is towards the pumps in the southern part of the Delta. This is a problem for fish, because it brings swimming larvae and other creatures that can't swim against the current down to the pumps. This is because this is the only place we have to take the water in now. A facility that takes water at the north end of the Delta will allow us to restore the natural flows that typically were in the Delta from east to west.

There are questions whether we are going to have an impact on fish in the north part of the Delta, but we have rules in place in the Plan that would protect the migrating fish and provide bypass flows during these critical times of the year.

Probably more important is the scope of the habitat restoration. Many scientists like to point out that one of the big problems in the Delta and the estuary in general is food production.

Having that combination of salinity gradients and habitat, wetlands primarily, is important for the health of the ecosystem and productivity of the ecosystem. What we don't have in the Delta is what we used to have, which is extensive networks of tidal channels and wetlands.

We'd like to restore those, 65,000 acres of tidal wetlands, riparian habitat and inundate floodplains.

Last year we experimented with Yolo Bypass with inundating it during the springtime to see what would happen with salmon that we grew on that part versus in the main stem in the stem of Sacramento River. We found that they grew twice as big.

We know that that's beneficial. Floodplains historically served many purposes. We'd like to be able to provide that benefit through additional floodplain restoration and inundation.

Suisun Marsh is one of our conservation areas. We've got 11 conservation and restoration areas that we have looked at that are a variety of different habitats. In Suisun Marsh we are talking about 7,500 acres of wetland restoration. The Suisun Marsh Plan has 7,000 in it now. We're consistent with that and at a minimum we're talking about 7,500 acres.

Upland grassland habitat is an important ecosystem that we want to restore. This is our goal for Suisun Marsh and we will be back to talk to you about the specific projects when we get there, but right now what the Plan includes and the environmental documents include is, an analysis of the ecosystem restoration component at the programmatic level because we don't know exactly which properties we're going to buy to restore. We do know what we want in terms of overall goals and targets.

It's a 50-year project. During the first 40 years we want to have our habitat restoration projects completed. It will be in pieces. Our goal is to meet this target and also, in the first 15 years, to have a pretty significant chunk of that 30,000 acres restored.

In addition to the direct restoration of different types of habitat we're going to be looking for easements on agricultural property because they have habitat value. Cranes forage on property that is used to grow corn. We want to make sure that this type of agricultural production that we want to make sure continues in the Delta. We'll be looking for easements on about 45,000 acres of farmland.

There are 11 conservation measures that are associated with habitat restoration. There's the one conservation measure with conveyance. The other 10 conservation measures, 22 altogether, are composed of the list on the screen.

It's a variety of things from dissolved oxygen levels in the Stockton ship channel to predation. We know that there are many places in the Delta where there are hotspots for predation by Striped Bass and other predators. We want to see if there are ways to control this.

We want to reduce illegal harvests, methyl mercury and so on. We want our overall program to produce net benefits to the different species that we're looking at.

We have a planning horizon of from now until 2060. That's what is known as the, late/long term. We looked at the environmental conditions today and then what those would be projected in the future. We also have to look at what is going to happen with climate change.

With climate change there is going to be higher temperatures, changed hydrology, more salts intruding into the Delta because of higher sea level and so all of these do have some negative impacts on different parts of the ecosystem and different creatures.

We're expecting that the future conditions are not going to be as good for the range of species that we're looking at without the kind of project that we're proposing. Our goal is to contribute to the recovery even with those climate change conditions in place.

We've listed the range of alternatives in the EIR/EIS. The Legislature is pretty specific in the Delta Reform Act in 2009 as to what they wanted us to look at. They have a list of projects that are covered here, but we've also got other alternatives.

They range from the original proposed alternative, which was the 15,000 cubic feet per second, five intake scenario which is Alternative 1. The three different versions of that are the eastern alignment which is primarily a canal is pretty close to the original peripheral canal alignment, the middle alignment which is the tunnel version and there is a western alignment too that we looked at.

There are different sizes, 15,000, cfs, then Alternative 4 is the version that we're proposing. That's the proposed project under CEQA. And this is the 9,000 cubic-feet-per-second three intake version. We also have a 6,000 cubic-feet-per-second two intake version and a 3,000 cubic-feet-per-second one intake version which is the capacity that a number of organizations asked us to take a look at. We did cover that component of their proposal in the analysis.

Alternative 8 is higher outflows, not the complete outflow that the Water Resources Control Board identified in their 2010 report. And that was an unimpaired flow analysis without any other considerations given to what the balancing of beneficial uses needed to be. Alternative 9 is the through Delta alternative with some improvements in channels in the south Delta, the Through Delta Alternative.

We're estimating a total of 25 billion dollars and that's present value of costs over the next 50 years. That's composed of the costs for the conveyance facility and that's going to be paid for by the water users.

The rest of it is for ecosystem restoration projects and that's proposed to be split between federal funds and state funds. We think it's appropriate for public dollars to pay for that because we've been modifying the environment for 150 years and it's going to take a while to recover. There aren't any real clear responsible parties that should be paying for that. It's going to be a benefit for Californians in general which is why we think it's appropriate to propose public funds for that.

Each habitat conservation has to take a look at alternatives to take. We have listed the different alternatives for you. This is a fairly extensive economic analysis that is part of the habitat conservation plans.

Another concept that has been looked at is fall outflow for low salinity habitats. This is another concept that has been looked at and it has been built into the biological opinion from the Fish and Wildlife Service. It was litigated and is now proposed as an adaptive management approach in the Bay/Delta Conservation Plan. These two additional components would be outflows that would be covered under the high outflow scenario. With the outflow scenario there is more water available for exports.

Some of the other alternatives look like they might be a better deal, but they have other problems that are covered in the same chapter that deal with what are the comparative impacts on species.

Overall, the optimal solution in that analysis turns out to be the 9,000 cubic-feet-per-second alternative.

Some have had concerns about what the operating rules will be. The foundation of the analysis is that we will continue to meet the current water quality control plan requirements which are embodied in our water rights, D-1641 and the biological opinion requirements that are in place now.

This is the baseline that we are looking at and carrying that into the future. If people are concerned that we're going to drain the Delta dry, well, that's just not going to happen because the Water Quality Control Plan prevents that from happening. We will be complying with that.

Because of the fact that we are proposing new intakes in the north Delta, there are some concern about the impact that might have on species. There are operational rules built into the BCDP that says that when we have fish migrating past the screens that we have enough bypass flow past those screens to protect them and keep them from being entrained on the screens.

We have rules for all the Middle River flows specifying how much reverse flow can happen here. There are spring and fall outflow requirements and those are built into the decision tree process for the proposal.

We have provided a table that shows what our projections are about Delta outflow. We're not proposing to change Delta outflow significantly if at all; particularly not in critical years. In fact, in those years there's going to be higher Delta outflows.

The concept of BDCP is to take water when it's available and don't take it when it's dry. This year, for example, we wouldn't be taking any water through the tunnels if they were in place because the scheme in the Plan is that if there are flow levels and associated allowances for diversions down the tunnels, so in very dry years like this there would be no diversions through the tunnels.

In terms of Delta exports, this shows that we're not proposing any significant change in Delta exports. The brackets are somewhere in the plus or minus five to 10 percent level on an average basis.

So how does this compare to the Peripheral Canal? This is a different proposal and it's a smaller proposal. The Peripheral Canal was a 21,000 cubic-feet-per-second proposal which is greater than the capacity that we have now in the Delta to pump water and export it through the aqueducts. The idea then was that we'd take water from the north coast rivers and bring it into the Central Valley and use that water to provide additional supply for all those places south of the Delta which start here in Livermore.

There was one intake, one facility. It was an isolated canal. It didn't have any habitat restoration. All of those differences with the current proposal are significant because we're proposing something now that's not just going to have impacts but it's going to have significant benefits and contributes to the recovery, which at the time, there weren't a number of species listed as endangered or threatened.

The comment period is currently scheduled for April and we're looking at some requests to extend that because it is a long document and we also have to have another agreement that's being developed now called, the Implementation Agreement. That has to be out for public review for two months.

In any case, our schedule still continues to be that we want to complete the environmental documents this fall and get the permits approved and then go through the permitting process for the parts of the project that are at the project level which is the conveyance facility. We need the Corps of Engineers permits, State Water Board permits and our goal is to start construction in 2017.

Lastly, let me mention how this relates to other actions. You may have been following the Governor's Water Action Plan. In the fall he announced that he wanted an action plan on all the different aspects of water issues in California. He just released that in January. That covers many of the things that we've heard from people that we should be addressing in the BDCP such as additional storage, local projects, Delta levees and so on.

If you look at the Plan it's a relatively succinct document but it lays out some goals for the next five years and yesterday he was at a press conference and the Legislature announced that they are proposing legislation to dramatically increase the amount of funding this year for some of those components, \$650 million plus. It's part of the action plan and part of the investment that we need to make.

There also exists the California Water Plan, CalFed was focused on all of these different items and these other plans touch on some the aspects that the BDCP plan doesn't cover.

Chair Wasserman announced: We do have one speaker who I would like to hear from and then we'll open it up to the Commissioners.

Ms. Darcie Luce spoke: I am with Friends of the San Francisco Estuary. We don't have a position on BDCP, but we are very concerned about the absence of meaningful analysis of impacts to the San Francisco Bay in the current draft.

BDCP leaders and staff have asserted that the magnitude of tidal influence negates any impact of changes to flows as a result of BDCP but, in fact, we know as the Bay Plan states that freshwater flows play an incredibly important role throughout the Bay, even the South Bay in peak winter storms.

In a recent review of the BDCP's effects analysis, the Delta Science Program, Independent Science Review Panel, concluded that the effects of changes in conservation measures should include San Francisco Bay and BDCP will likely impact the San Francisco Bay.

The science is strong that average freshwater flows for the past decade have been insufficient for a healthy Bay. BDCP's preferred project does not change that.

Napa County, Marin County, Contra Costa County and the ABAG Executive Board have all passed resolutions calling for increased freshwater flows to be a part of any planning process including BDCP.

Native species like Dungeness Crab use the lower salinity of the Bay as a nursery and these species are not included in BDCP's analysis.

Freshwater flows are also essential for our water quality, wetlands and marshes and for maintaining the resiliency of the Bay system against threats like harmful algae blooms.

BCDC and San Francisco Bay deserve a more thorough analysis of impacts to our region from BDCP.

Chair Wasserman acknowledged Paul Helliker.

Mr. Helliker responded to the public speaker: We did actually look at potential impacts on San Francisco Bay in the initial phases of the analysis and because of the way that the project is structured and the fact that there are no significant changes to flows, we did not identify any impacts.

Commissioner Gibbs commented: Mr. Helliker I heard a report yesterday that there were 10 significant California communities that were in danger of losing their water supply within the next 60 days, running out of water. Could you as Deputy Director of the Department of Water Resources give us a status on the current crisis. Help separate fact from fiction and tell us in plain words, what's the likely best case, worst case scenario over the next couple of years for the situation that we're in right now.

Mr. Helliker responded: After it rained a couple of weeks ago the term that I heard somebody use was that we went from chaos to crisis. We're still in crisis. This year looks like it's going to be the worst year on record for water supply.

As the Governor announced in January, he's asking Californians to reduce consumption by 20 percent. For the State Water Project for example, our deliveries that we announced in January are zero. That's a pretty significant reduction. It's hard to go any further than that.

About the communities that have been identified in the surveys, we are working to make sure that they don't run out of water. Typically they are small communities in the northern part of California or along the coast who don't have easy access to augmented water supplies.

We're looking at everything from connections to other systems to trucking water in. But the rain that happened a week and a half ago did help the situation in places like Willits which had been identified as potential a problem there.

We do have a drought team that we've convened and the Governor has convened. It's based in the Office of Emergency Services and high on their list is looking at what we can do to prevent those communities from being affected in that way.

Commissioner Gibbs asked: And what about the metropolitan Bay area? At some point are we looking into mandatory rationing? What needs to happen so we either do or don't?

Mr. Helliker answered: Well your colleague Supervisor Sears here benefitted from that rain storm significantly and that's the water district that I used to be the general manager of. They had 20 inches of rainfall on Mount Tam. They went from a scenario under their rules of mandatory conservation to voluntary conservation. They are still proposing a pretty significant reduction.

Zone 7 Water Agency for example, they do rely on the State Water Project deliveries for much of their water supply. They're in a current situation of a mandatory 20 percent conservation mode.

I think East Bay MUD and San Francisco are both looking at 10 percent voluntary at the moment but the conditions are likely to evolve.

A lot of water districts tend to keep their final decisions until closer to the end of March because in the past we've had very wet Marches. When you start a conservation program in February and then it rains a lot then people start to wonder why you asked them to start to conserve.

I think that's the situation that many of the water districts in the state are in. That's the current information that I have about where you are in the Bay Area.

Commissioner Nelson asked: I'm one of those recycle voices as well. When this issue last came before the Commission I had two hats on. I was a Commissioner and I worked on issues in the Delta. I'm no longer working on those issues in the Delta.

My first question is with regard to restoration. The Commission has jurisdiction over Suisun Marsh and the future of that is tremendously important to us.

The staff report raised questions that you're familiar with about whether the restoration projected by BDCP is likely to actually happen over time and I'm not familiar with what's happened in the last 10 months. Can you update us on what mechanisms are in place to make sure that the restoration that is being analyzed in the environmental document will actually happen over time. Is it going to be an enforceable permit term if adequate state and federal funds don't appear? Is there a backup plan? How do we know that the project you're analyzing with regard to the habitat phase actually will be implemented?

Mr. Helliker replied: Well I think that you can look at the financing chapters to see what the plans are for how we're going to fund it. In most habitat conservation plans which are generally done by counties and cities, the funding stream tends to be general fund dollars that come in over time.

What we have here is a fairly strong package with ratepayer dollars that are a relatively secure funding stream for a large component of it. The part you're asking about for the ecosystem restoration that is currently identified as targeted for bond measures. The bond measure that is on the ballot this year has two billion dollars plus for Delta restoration projects. That would go a long way towards providing the funding that's identified for the state component of that.

Now, that's being debated as to what the full size of that bond measure should be this year. We have a 50-year window or 40 years is our target window to be able to generate that funding.

So even if there's no bond measure this year or it's lower than what is currently on the ballot we still have time to be able to generate that funding.

In terms of obligations and commitments these will be enforceable permits under the Endangered Species Act. If we don't achieve the requirements that are laid out in them, then, we won't be able to do the activities that are specified in there. It's hard to get a stronger regulatory package than that.

Commissioner Nelson inquired further: So the biological goals and objectives, not the habitat, but the biological outcomes will be enforceable within the terms of the permit?

Mr. Helliker replied: The specific provisions that are associated with those, the goals themselves, are not enforceable mechanisms. The adaptation strategies that we develop and the projects that we put in place, those have to be implemented.

In the Plan there is this concept of where we implement projects in the same pace at which the impacts are happening.

Mr. Zippin commented: In terms of the acreage targets, those are enforceable conditions in the conservation measures. In Chapter 3 of the Plan we identify the acreage requirements and we have a schedule in Chapter 6 that lays out in five year increments what our required restoration acreages are for each natural community.

In that sense, Paul is right that the goals and objectives themselves are not necessarily enforceable conditions, but the acreage targets are actually distinct because they are a part of the conservation strategy. That does make them permit conditions.

Commissioner Nelson continued: The second question gets to an issue that Ms. Luce and the staff raised. I'm trying to put two things together. On the one hand the last Bay estuary report talked about the Bay suffering from permanent drought conditions that has negative impacts on the Bay. That's not just the state and federal projects. There are plenty of other diversions there. It pretty clearly indicated a need for stronger standards.

The State Board, as you know, their flow criteria, are not regulatory, but they represent scientific findings, and call for dramatically stronger standards. There's been a lot of discussion about the need for stronger standards especially during dry years. I was just looking at the numbers, and this is the first time I've seen these new numbers. I'm looking at average annual exports and at Delta outflow. And under average exports what I see is that under the high outflows scenario there would actually be a modest increase in pumping compared to the no action alternative.

What that means is that on average the high outflow scenario actually has less outflow than the status quo.

Mr. Helliker clarified: The no action, future without BDCP is the second column, second box.

Commissioner Nelson acknowledged: You're right. There's 30,000 acre feet difference. This is less than a one percent difference between the no action scenario and BDCP high flow. Virtually, I think it's easy to assume that high outflow means an increase in protections. On average there is essentially no difference between the status quo without BDCP and the current proposal with the high outflow scenario.

Then I went and looked at the average Delta outflow under dry water year conditions and critical water year conditions, no action, future without BDCP and BDCP high outflow conditions and there are improved outflow conditions in dry years and critical years. It's about one percent in dry years and about three percent in critical years. I'm just trying to line that up with the dramatic language that we heard from the State Estuary Report and from the State Water Board and I'm trying to understand how the high outflow conditions works with high outflows in those critical years, or are we talking about trying to take a big gulp versus a little sip? These are the little sip years and there would be a one percent increase in outflow in dry years and a three percent increase in critical water years. I'm trying to find where the high outflow is there. Can you help us with that?

Mr. Helliker further explained: Those are high outflow in the context of a fall X2 standard and a spring outflow standard for Long Finned Smelt. It's not necessarily a generalized number that is on an average basis, a flow number that is a significant comparison. The comment that we heard about the Water Board's unimpaired flows analysis and some of the information presented by various proponents of higher outflows through the estuary, we appreciate that those pieces of information are out there, but what we based our analysis on was looking at what the current requirements are in the Water Quality Control Plan and the biological opinions and that's the foundation for this project.

We're not significantly increasing outflows, not significantly decreasing outflows in comparison. That really is more of an issue that the State Water Resources Control Board will be addressing in the Water Quality Control Plan update. Any changes that they make to flow requirements we will incorporate into our operational scenarios in the future.

We were trying to use as the basis what the current regulatory requirements are into the future.

It's not just flows, outflows, exports that are analyzed as what the impacts and the benefits might be. The whole ecosystem restoration component is where we find the additional benefits to the ecosystem. I think that's consistent with the science that we've been reviewing and the estuary programs have been reviewing as well having to do with the need to have additional food productivity in the estuary. That's where a lot of the improvements in the ecosystem come from.

Commissioner McGrath commented: I have to assume that as a Regional Board member that the State Board will do what it should do and will look at the seasonal changes and will look at the strong testimony from people that say there really isn't much change in outflow and make sure that that outflow is at a critical time when there's a net benefit to make the compelling case.

I want to thank you for your comprehensive briefing and I want to represent the concerns for the Commission and particularly for our staff for the comments about sediment delivery and sediment impacts which is a complicated question.

I'll provide just a little bit of background. Not everyone understands that the State Water Project and all the other water projects had a dramatic effect on sediment delivery. And it's not the sediment trapped behind reservoirs but it's, in fact, the shaving of the peak of the hydrology. A typical storm that might have been 80,000 cubic feet per second before a series of dams is now perhaps 40,000. And that doesn't mean you've got half the sediment. That might mean that you've got a quarter of the sediment or less coming down because you simply don't have the capacity to transport it.

You're not proposing any new facilities. That's not new, that's not a new project impact but it's a context and my concern is there's a couple of different things here and you did pass over the sediment delivery despite the staff's questions without comment.

There's a couple of questions that I have. First of all we've got sea level rise. And without any acceleration we've got maybe four or five inches more of sea level rise since the project was constructed. It wasn't analyzed in the original documents and that's going to move the areas of sediment deposition upstream and away from the Bay while we're discovering that the Bay is in critical shortage.

I'm not sure that we've taken into account what impacts changed circumstances create even with no new facilities; this needs to be dealt with.

Second, I'm not sure the degree to which the new pumping regime will continue a process of creating an artificial pitch to the river upstream that ends up affecting sediment delivery.

And third, I'm not sure what the proposals for construction of restoration projects, which are highly desirable in the Delta upstream of the Bay would, in fact, end up being sediment sinks. We've got concerns about the critical need for sediment to simply keep up with sea level rise. You didn't talk about it that much.

If I just look at what you have given us, which is Delta outflow, I went to the same table that Barry did and there's a slight decrease in Delta outflow, not significant, but as a first order approximation Delta outflow is not a bad estimator of that outflow so you're not helping. Are you sure there are no sinks in there?

What's the sediment story? I crafted these a lot for staff because I'm assuming that they're going to be preparing comments on that. But I don't see a compelling analysis that answers the questions raised in the staff report.

Mr. Helliker replied: Let me answer your question about what we analyzed with respect to sea level rise. We do have scenarios both in 2025 and 2060 and it's 16 inches of sea level rise by 2060. And that's right in the range of estimates that we have not only from BCDC but from other entities as well. You mentioned that there had been changes since we did this, our analysis is up to date and covers the range that people are still projecting at this point in time.

Mr. Zippin addressed the subject of sediment analysis: Sediment dynamics is not my area of expertise. It is certainly something that we evaluated in the EIR/EIS and one impact the project has and we acknowledge that once the new facility is online in the north Delta, there would be a removal of approximately eight to nine percent of the sediment coming through the Sacramento River as a result of the intakes.

We are looking at ways to reuse and essentially redeposit that same sediment back into the river. We recognize that the San Francisco Bay is sediment deficient and sediment is increasingly recognized as an important resource.

We're also understanding better the need for sediment in tidal wetland restoration projects themselves. We will be generating a lot of new sediment sources from the tunnel construction, approximately 24 or 25 million cubic yards of sediment will come out of the tunnels. We expect about 99 percent of that to be reusable for tidal wetland projects, for other uses. It's a situation that the San Francisco PUC has found in their tunneling project they've actually sent a lot of their sediment generated to tidal wetland restoration on Bair Island in the south Bay.

We would like to replicate some of those win/win situations. It also gives us more ability when we have that much sediment available it gives us more flexibility to have tidal wetland restoration be more feasible.

It gives us more sites to choose from. We can start to look at sites that are more subsided because we have that sediment fill source to introduce. And then that tidal wetland project would become a sediment source for sites downstream. This is something that we are working on and we will provide more information about it in the final documents.

Commissioner McGrath followed up: Did you identify the loss of eight to nine percent of sediment on the north fork as a significant impact?

Mr. Zippin answered: I don't recall. My oversight has been primarily on the conservation plan. I would suspect that we did, yes.

Commissioner McGrath added: I haven't read the 25,000 pages.

Commissioner Scharff commented: I was a little unclear on the cost on the funding. Where it says state water agencies, public water agencies; that's like Hetch Hetchy.

Mr. Helliker responded: The reference to public water agencies, anybody that buys water from the state and federal projects will be part of this funding mix here. Right now the estimate is that it is going to be split half and half between state and federal contractors.

Public water agencies is kind of a generic term. Anybody that receives water from the state water projects and the Central Valley Project south of the Delta.

Commissioner Scharff continued: So does San Francisco and Hetch Hetchy receive water as part of this?

Mr. Helliker replied: No. San Francisco has its own peripheral canal and has been spending four and a half billion dollars on shoring that up as well. This will not affect Hetch Hetchy rates.

The Metropolitan Water District estimates that for the average user in their service territory that over the 30 year period that they are looking at this debt service coming into effect, that five to six dollars a month is what they're looking at for an increase in costs.

Commissioner Doherty asked about habitat: I was interested in the transition of habitat types with sea level rise. I noticed that of the 65,000 acres for wetland restoration, tidal wetlands, that 10,000 acres of that was for upland areas to account for habitats adjusting with sea level rise.

I'm curious to learn a little bit more about that in terms of where you're planning that 10,000 acres and if you can talk about how you did the analysis of species protection when the habitat types are changing over time.

Mr. Zippin fielded this question: It's very relevant for Suisun Marsh. The requirement in the Plan is "up to" 10,000 acres. We don't know how many it will be, but we'll have in the range of five to ten thousand acres of upland habitat protected around the edges of tidal wetlands habitat. It will serve dual purposes. It would serve purposes today of protecting that upland transition, the grassland transition which already supports a number of species especially endangered plants. Many that are covered by BDCP are around the margins of Suisun.

And those are the areas that we expect in the future we'll need to accommodate tidal wetlands as they either migrate naturally upgradient, or we have to help them migrate upgradient as sea level rises. If we lose those buffer areas to development, to utilities, to whatever roads, we won't have that ability. BDCP is an insurance policy to make sure we have that ability to protect those marshes as sea level rises.

Commissioner McElhinney commented: I'm Commissioner Dan McElhinney representing Cal STA but also with Caltrans. You mentioned Central Subway. I recently toured Central Subway so I'm familiar with that. Construction is going very well here in San Francisco. Caltrans and their partners finished the Devil's Slide tunnels on Highway 1 and the Caldecott Tunnel recently on Highway 24. There is a lot involved with this so I'm really glad that you mentioned some good ideas to do with material from 60 miles of tunnels. The excavated material can be used very wisely. There is a lot of heavy lifting to be done in this schedule but once 2017 gets here if that's when construction starts, what's the timeline and how many contracts are planned? Just in general, maybe you can give me a sense on the construction timeline.

Mr. Helliker responded: The analysis that we did is assuming that operations start in 2025. That's the timeline that we are looking at. Prior to 2017 we can start designing the facility and we'll need to do so for the purpose of additional permits and so on. That's the overall time schedule at this point.

The tunnel I was talking about was the San Francisco Public Utilities Commission Hetch Hetchy tunnels that they're doing under the Bay and east of the Bay. I think it's a technology that is well defined and well tested. If people have concerns about whether we're going to be successful there, I think that's something that we have well in hand. As David mentioned, we will have lots of material available and we'll be testing it to see what its characteristics are.

One of my other programs is the Delta Levees Program where they're always looking for material to help shore up the levees. Since we will continue to be using the corridors of the Delta for water supply and all the other beneficial uses, I think we'll have a market there as well as some of the restoration projects where we do need to raise the elevation. This will be a source of that material as well.

Commissioner Bates had questions: This presentation was really enlightening. My concern is the question of whether or not your chart about the strategies and when we get to regulatory controls and you have under the peripheral canal, avoids jeopardy, whatever that is. And then you have, "conserves and contributes to recovery." What the heck is that? And what are the assurances that once this plan is in place that we'll have the mechanisms so people won't come along and say,

guess what then was then and now is now and we're going to take the water and you guys can figure it out from here. As the Legislature shifts more and more towards the south we know what can happen. So what are the safeguards against that occurring?

And the other question I have is in relationship to the benefits that were substantial and you eloquently described them but they're sequenced. So what happens when you get just the tunnels and we don't get anything else because, the money just isn't there? What are the assurances that the whole package is going to come together?

This is a real concern. And what is the staging going to be? Do we have the benefits as well as the exports? And the exports aren't going to happen unless we have the benefits?

Mr. Helliker addressed Commissioner Bates question: The term that I was searching for earlier was, proportionality. As we start the construction project and we start to experience some of the impacts that we've projected, we will be doing commensurate mitigation and restoration projects so that we keep up with whatever the impacts are. And that's part of the regulatory requirements in terms of acreages and timing for those acreages. And built into that strategy is this concept of mitigating for proportional impacts.

One of the things that the science panels have looked at is what sort of certainty do we have that these restoration projects are going to produce the benefits that we expect? That will be one area that we have to track as well. Part of the adaptive management approach that's built into this plan is to review all of the activities that are going on and review the benefits that are being produced by those restoration activities and also the impacts and determine, are we achieving what we expected to achieve?

There's a way to adjust that. If we need to have more wetlands habitat then that can be built into a new adaptation or if it turns out that wetlands are not the answer and flow rates in certain parts of the estuary are, then there's also a process built into the adaptive management program to switch to procuring water sources and providing those flows.

That's all built into the Plan. There's a whole adaptive management chapter and a decision making process where the regulatory agencies have the final say about what the benefits are that we are achieving and what adjustments need to be made in the overall plan.

In terms of what guarantees do you have in your part of the world, the good news is that East Bay MUD has senior water rights.

Commissioner Bates voiced his concern: I'm more worried about the water coming from the Delta into the Bay. What's happening with sea level rise, with more salt intrusion and rising brine without the water. I am concerned about that you build the tunnels, that's one thing, you've got the tunnels. I assume you're going to charge the water users for that tunnel. Is that right? You're not going to use bonds for that tunnel?

Mr. Helliker answered: No. The Conservation Measure 1 which is the conveyance project including the mitigation measures will be on the timeline. The hub stations, the screenings, the tunnels all the facilities will all be paid for by the water users.

Commissioner Bates continued his inquiry: So how does that work? Do you let a bond and then they pay for it? They're not going to pay for it until they get the water, right?

Mr. Helliker responded: Well, that's one of the things that we're looking at right now is what the mechanics of that will be. There are various options that we have but I think there's a general recognition that we will need to use debt to pay for this, which is pretty typical in the infrastructure arena. It would be a revenue bond.

Commissioner Bates continued: It will be a revenue bond that they will be responsible for paying for. I'm sure that you have a good plan and I have to look at it. The adaptation I'm worried about. I see the tools for the tunnel being constructed. I see that happening and then I'm concerned that the money won't be there to corollary to have the benefits flow. And if you tell me they're going to go at the same time it's hard for me to imagine when you're getting a tunnel and you don't know what's going to happen until you actually start diverting the water. I'm sure we'll have a lot of time between now and then.

And the other question is, the Legislature is not enamored with what is on the ballot in November and will probably be removing it and maybe replacing it. What are you looking in a potential second measure that'll come before the voters?

Mr. Helliker replied: The Governor has not articulated what his preference is other than he like to make sure that it's going to be something that passes. There are different alternatives that are being analyzed right now.

We have two different measures from Assembly Member Rendon and from Senator Wolk and those are in the six billion dollar range. There's a Senate GOP caucus version that is in the nine billion dollar range. And then there is a five billion dollar version from Assembly Member Logue. There's lots of ideas out there.

What will have to happen is that there has to be a two-thirds vote in each house for either the bond measure to be taken off the ballot or modified. So that's the threshold limit that they're looking for to achieve consensus on what the final —

Commissioner Bates interjected: Are you sure it's two-thirds to take it off? I'm not sure about that. I know it's two-thirds to put it on but I don't know about take it off.

Mr. Helliker explained: Any modification to it has to be two-thirds. It's a high threshold to me.

Commissioner Bates commented: Well, a lot of people feel it's dead in the water because it's got so many problems. There's all kinds of things that are in that bond that riles people up. So there's going to be real opposition to that measure I'm sure.

Mr. Helliker agreed: You may be right. I've seen polling results but it's also changing as the year progresses because it's a pretty dry year.

Commissioner Pine commented: I thank you for the presentation. For me this is a little bit like a Mid-East peace. I'm kind of afraid to follow it because it's so complicated and it seems intractable.

You list here lots of permits and such that need to be obtained. Is there further legislative approval? And I take it that the water bond is integral to this too.

Mr. Helliker replied: The Legislature doesn't have to approve anything associated with the conveyance project. That was originally authorized as part of the State Water Project and was confirmed in the 2009 Legislative Package where the Delta Stewardship Council was created, the Delta Reform Act and the Bay/Delta Conservation Plan. There were guidelines given to what it should include but also a process for it to be incorporated into the Delta Plan.

That part of it doesn't need any further deliberation by the Legislature. The one component that will need further approval is the public funding part of it.

Part of that could come from a bond measure this year. In the Plan we identified two potential bond measures during the course of the time when we're doing the restoration projects as the mechanism to provide that funding. That will require approval from the voters.

Commissioner Nelson had a question for staff: There's an initial question in here that I never considered, and that is, whether BCDC would need to provide a consistency determination on BDCP. A question raised in the staff report, does the staff have an answer for that question or could you come back to us later with some guidance on that question? That's a big one.

Executive Director Goldzband responded: We'll do both.

Chief Planner LaClair commented: The state aspects in the project don't require permits from the Commission because they're not within the Commission's jurisdiction but some of the questions that we raised about impacts on San Francisco Bay are part of how the Commission determines whether a consistency determination is required. Will the federal project, in this case, actions by the Bureau of Reclamation in operating the federal project and decisions by the National Marine Fisheries Service and U.S. Fish and Wildlife Service, will that affect San Francisco Bay, Suisun Marsh which is your coastal zone? And we're still ferreting that out.

Mr. Goldbeck added: CalFed came to you and got a consistency determination for the CalFed actions some years ago. What we're looking at and are going to be talking with the BDCP folks about is whether the nature of the actions here are somewhat different than they were back then. We still need to work out what the requirements are and what we think the potential impacts are.

Mr. Helliker stated: When I was talking about the restoration projects those are conservation measures that are likely to happen in Suisun Marsh. Those will be projects that are in the jurisdiction of BCDC. We know that when we get to the project level we will be coming to you to talk about how your requirements relate and what are the approvals we need.

At this point we know that there will be federal decisions on the permits. They have to have conservation plans and so there may or may not be a consistency certification the BCDC needs to do. We have started that dialogue.

Chair Wasserman continued the meeting: Thank you very much for the presentation and I suspect we'll be seeing you again.

**11. Briefing on the Oakland-Alameda Estuary Clean-Up.** Chair Wasserman announced: Our next item is a briefing on abandoned vessel clean up in the Oakland-Alameda Estuary, presented by Todd Thalhamer with the California Department of Resources, Recycling and Recovery (CalRecycle) and Will Duncan with the U.S. EPA. Adrienne Klein will introduce the topic.

Ms. Klein presented the following: Last year on March 21, 2013 the Commission received a briefing on abandoned vessels and marine debris in San Francisco Bay. You received an overview of your authority under the McAteer-Petris Act to regulate vessels on the Bay and the main federal, state, local legal authorities that exist to manage abandoned and derelict vessels.

You also heard about the Abandoned Watercraft Abatement Fund and the Vessel Turn In Program, two grant programs administered by the California State Parks, Division of Boating and Waterways and the ongoing efforts of the Richardson's Bay Regional Agency to manage its anchorage of about 200 vessels and two marine clean-up projects in the Petaluma River and the Delta administered by CalRecycle using its solid waste disposal fund.

Today Todd Thalhamer, a solid waste engineer for CalRecycle, has returned with Will Duncan, a federal on-scene coordinator with the Emergency Response Section, Region 9 of the U.S. Environmental Protection Agency's Office of Emergency Services to brief you on the nearly completed multi-agency, multi-million dollar solid and hazardous waste cleanup of the Oakland/Alameda Estuary.

Mr. Thalhamer addressed the Commission: My name is Todd Thalhamer from CalRecycle.

Mr. Duncan introduced himself: And I'm Will Duncan with U.S. EPA.

Mr. Thalhamer continued: Last time I was at the Commission we were just about ready to kick off the project. There's been a lot of developments. A lot of sweat equity has been put in both by state and federal agencies along with your agency.

We are going to try to give you an idea of how the project has come along. Approximately eight million dollars were spent doing this project in the estuary. The final numbers are just starting to come in.

This was a very small project when it first came to the Commission, about \$1.3 million. USEPA and the U.S. Coast Guard both stepped up to the plate which I didn't think was going to happen but they both did. They've actually turned the Estuary Project into a very successful project.

By them participating we have been able to remove some of the vessels but their support and their process really changed the project. I have been doing this 21 years and this is the first time I have worked collaboratively with two other federal agencies that really stepped forward.

We've talked about this project and where it got started. The Oakland Police Department requested CalRecycle to come take a look based upon our previous work in Petaluma. From that I realized that the Oakland Estuary was one of those projects that really needed to have some additional work done to look at the enforcement issues, look at the complexities and why all these vessels are here and come up with a project.

Doing that I then contacted EPA who then threw me to the Coast Guard and then through a couple of other agencies I found a grant process. I wrote a grant that would commit my agency to \$650,000 and we received the grant which surprised my management. From that we had a 1.3 million dollar project.

During that time you may know that we also worked with BCDC to obtain some additional funds. We partnered up to use mitigation funds from Bay Ship and Yacht and they've completed their mitigation funds by helping us at the Oakland Estuary. So it became a 1.375 million dollar project.

At that point I realized that we still didn't have enough money and there were a number of large scale vessels that were in the Estuary and I had asked U.S. EPA, the Coast Guard and the Army Corps of Engineers for additional assistance.

Luckily for us they provided additional funding and they provided their technical assistance to make this one of the largest marine vessel removal projects on the West Coast in quite some time. Someone said that it was probably the largest raising of vessels since World War II and Pearl Harbor.

There are a lot of vessels that we got to that I never thought we would have.

Mr. Duncan continued the presentation: So the Oakland Estuary is in the Coast Guard's jurisdiction. The first thing that happened when Todd approached all of the three federal agencies was the Coast Guard stepped up and said, we would like to help. We would like EPA to also help so we're going to give them our authority in the coastal jurisdiction for hazardous materials.

For OPA (Oil Pollution Act) we're going to hold to that authority and if you come across oil we'll take it over from there. We had that opportunity to pass the baton to the Coast Guard. This happened when we raised the vessel, Respect.

Once we had that authority we went out with our technical contractor and collected samples at a very low tide so we could get samples from the surfaces of the boats that had been underwater. That report came back and documented that we had metals, PCBs, THPs and asbestos on these boats that were in the Estuary and that were actively releasing.

With that we moved the project forward and said to Todd, we're going to go ahead and fund a removal action and is there anything else we can help you with in this area? This ran the length of the Estuary.

He said, I do need a little extra help with the 106 process, historic preservation. We said, historic preservation? These are boats that are under the water. What are you talking about?

He said, well, there's a requirement that we have to go through the process and make sure that we don't take anything away from the Estuary that has historical significance.

We identified two areas of the vast Estuary project that did pose an impact to historical significance and that was areas 2 and 3; around Coast Guard Island and just on the other side of Coast Guard Island Bridge.

Mr. Thalhamer continued: Once EPA stood next to us along with the U.S. Coast Guard we were able to look at some additional sites that we had not anticipated. I went to NOAA and they had just completed a marine survey and we found an additional 19 sites that were underwater.

I had additional funding that I looked for and I found an additional 19 sites. On Site 1 we worked with State Lands and their adjudication process. We had a lot of individuals that were illegally moored out there.

Sites 2 and 3 were talked about by Will. We left a number of barges at Site 2 that were deemed historically significant that were marine debris. We didn't feel it was worth our time and effort to go after those. We had approximately 70 other sites to do.

BCDC funds went to mitigate an old dock using Will's authority along with the historic preservation we were able to document this dock and remove it. It took approximately three days with some heavy equipment to remove all the pilings and dock. The restoration project went really well on this particular site and this came directly from the BCDC mitigation funds.

On Sites 4 and 5 we had a number of vessels here that were abandoned and illegal. Site 4 was a reflecting pier with a houseboat in the middle of it. We were very fortunate that we only knocked off one reflector.

Site 5 had two boats sitting on top of five other boats underwater. We spent a lot more time in this facility than we had planned.

Mr. Thalhamer addressed Site 6 details: Site 6 became what we spent most of our time on. The two things we focused on in Site 6 were a 105 foot sunken tug boat called the Captain Al as well as a 150 foot tugboat called the Respect.

One of the first things that we determined after having our contractor, Global Salvage, go down and do penetration dives on the ships, is that they were completely full of sediments.

We were scrambling at the last minute to try and figure out where to put that much material.

The first idea was let's go ahead and put it in a barge. That was the quickest answer. Once we got the barge out there we understood, this isn't going to work. It's 220 feet and it's enormous. It's going to impact traffic on the Estuary. This is a bad idea.

Before we put anything in it, we went to a land-based settling system. The principle was, pump this sediment out of the boats and get it to settle out of the water as much as possible and put that back into the Estuary. And then take that sediment and manage it, test it, analyze it and see if you have to dispose of it as either a hazardous material or as just solid waste.

We introduced a flocculent to the material to speed up the settling process. The flocculent consisted of, crushed crab and lobster shells that's concentrated. It makes the particles heavier and they settle out much quicker. We treated over one million gallons of sediment and we were able to discharge one million gallons back into the Estuary.

We are not sure when the Captain Al went down but when it came back up it looked pretty rusty and pretty dilapidated. We successfully raised it. We were able to mitigate any hazardous materials as well as oil off of it. We didn't initially find any oil on it but when we handed her over to Todd, who did the demolition of it, he found 100 gallons in the engine.

The Respect sunk on April 10 of 2007. Everyone was assured that there were no chemicals or hazardous materials onboard. What we found right away when we did our penetration dives is that there were bags of asbestos throughout the initial deck.

We found hazardous materials that we had to deal with and then soon after we found the presence of oil on the boat. As we were pumping out sediments we began to find what we believed was Bunker C floating on the surface of the settling tanks. At that point we asked the Coast Guard to come back and actively do the removal with us.

They actually took that portion of the removal over and said, we will raise the vessel. We would like you to continue to do your hazardous materials assessment of it. We'll take care of all the oil that we find on it and then we'll collectively give it over to Todd to do the final demolition.

This would have been financially very difficult for the EPA to commit that amount of funds in that short of time to raise that boat up.

We also through our Enforcement Division at EPA were able to track down who the current owner of that boat was in hopes that we could get them to step up and pay for the removal. The individual who currently owns the boat is in his 70s who has been convicted before of environmental crimes. He lives in British Columbia so we don't expect that he's going bring anything to the table.

Chris Kimrey brought in a very large crane from Seattle to do the actual par buckling and lift of the Respect. The Respect was virtually hidden under the water.

Mr. Thalhamer continued: This is the current state with Respect. It's at bay in Ship as part of their mitigation assisting us with the docking. It's now going to be shipped over to the Army Corps facility in Sausalito for the final demo.

This was Site 8, San Leandro Bay. We removed the flotilla and we have one left out there. We'd like to get the last metal structure out of San Leandro Bay.

When we showed up at Site 6 it was dilapidated and structurally deficient, collapsed old piers, slag, hazardous waste; you name it, it was on the shoreline. Part of our deal with the landowner is that we had down time between our equipment demoing vessels one day and then doing the shore restoration on the other days.

The shore restoration was approximately one week. The rock line was approximately two days. We had a very interesting partnership with the different agencies that I'm very proud of.

Mr. Will Duncan continued: We had originally estimated about 3.6 million to do our action. We've crept over that to get rid of the sediments. Total recoverable costs are 5.4 million. We focused on four large sunken wrecks. We only managed to get two out of the water with the help of the Coast Guard and Todd took the other two.

The Coast Guard remains the lead FOSC (Federal on Scene Coordinator) for responses and they probably have spent about 2.4 to 2.6 million. The EPA paid an additional 50,000 plus for the historical evaluation of the Estuary.

We took out over 17,700 pounds of asbestos from the Oakland Estuary. We had 3,270 pounds of waste paint removed. We also took out 1,000 gallons of flammable liquid. We found acid liquid, toxic liquid, waste oil, explosives, marine batteries and other miscellaneous things. These were in boats that were either under the water or were floating on the water with really no custodian to take care of those hazardous materials.

Mr. Thalhamer continued: From our stats knowing that EPA and the Coast Guard stepped up with their process it really allowed us to go after a lot of additional sites.

We initially proposed nine sites. We processed 73. That included 58 vessels, nine debris sites, four docks and two shorelines. Out of that we had five vessels leave under enforcement actions that State Lands and the local law enforcement took over.

Currently we're at about 70,000 dollars of metal recycling and then there is creosote which is 125 tons, debris which is over 350 tons and concrete which was 35 truckloads. Most of that came from Site 6 which was an abandoned dock area.

Mr. Duncan continued: Starting last week and finishing yesterday EPA got rid of another 3,000 tons of contaminated material, California hazardous waste. Those sediments that we took out from the boats, we removed about 700,000 cubic yards off of the Respect and another 500,000 off of the tug, Captain Al. Because of their condition we couldn't transport them offsite so we had to use crushed concrete that was available onsite to solidify those sediments bringing that total to 3,000 tons.

It cost us a little more money, about 300,000 more to get rid of that material. As of today, that giant pile is gone.

Mr. Thalhamer continued: Doing what we did you can summarize the project by the other stats. While we were out there we responded to six 911 calls. We raised six vessels that sunk and demoed those vessels. We averaged about two a month while we were out there. The EPA got tasked with a 55 gallon drum floating through the Estuary. This was human waste.

We closed the channel twice. Finding paint marks for five blocks on a former keel was priceless. Someone dragged the keel five city blocks up to a gate and I asked for my keel back. The owner answered and said, I know nothing.

There wasn't a day that went by that we didn't have some kind of event that set us back and made us say, this is a system-wide problem, it's systematic.

Our key to success comes down to, it's a local project, enforcement with local law and State Lands. I know the Park District is here and they were part of that local enforcement. They have done their due diligence to keep individuals from abandoning their boats but we had multiple partners, federal, state, local, contracting resources and it's really taking all these resources and putting them together.

This is something that you don't do very often. It really came down to this. The Captain of the Port said, no single entity could ever achieve this mammoth undertaking given fiscal realities. This is true. By taking the federal help, both EPA and the Coast Guard we were able to do a lot more than we ever anticipated.

This is the one thing that we always heard, my boat is not a threat, why do I have to remove it? All these boats were removed from the Estuary.

Mr. Duncan concluded the presentation: (This is our second effort in Bay area water, the first being, Petaluma River.) We have documented that these vessels that are abandoned are significant threats to the marine environment.

They have both environmental threats to them as well as human health threats. We have to use our authority as EPA to deal with these vessels. We also need the help of the Coast Guard with their authorities and we really need the Army Corps' help too. In other words, we need that federal partner to step in and help with these removal actions to mitigate these threats.

We tried to do what we can on a local level. This is a big picture item which will have to be taken back to Washington, D.C. at our headquarters and Coast Guard headquarters and the Army Corps' headquarters. They are going to have to figure out what roles we'll have in the future with these removal actions.

These are costly projects. We get about seven million dollars a year in my section and this is for all of Region 9.

I spent almost four of it this fall in the Oakland Estuary.

We won't be able to do it all the time. There are certainly ways that we can make it more efficient. We need to get our federal partners involved to help with that so that we can help the folks like Todd to help the folks like you to make a big impact.

Chair Wasserman commented: I thank you very much. We have three speakers that I want to get to.

Mr. Christopher Kimrey addressed the Commission: I am Lieutenant Christopher Kimrey and I am the federal on-scene coordinator representative from the United States Coast Guard, Sector San Francisco Incidence Management Division. I worked quite a bit with Todd as well as Will both on this project and on another project that we had conducted up in the Port of West Sacramento.

I want to echo some of the sentiments that were shared here both by Todd and the EPA as well as Captain Greg Stumps, the Sector Commander. It is important to note a couple of items. One of these, particularly to the success of this operation was the unified voice that we were able to address this issue with, both with the EPA and the Coast Guard, Army Corps of Engineers and the state of California. We came together in advance and created a plan to move forward in a concerted effort.

The second is local marinas. The local, state and federal partnerships were very important and you can't underscore this enough. That is the key to success of these types of operations. Without the help of the marinas, the state and the locals, the federal authorities bringing their particular response authorities and their appropriate jurisdictions; an operation like this would be impossible.

It's very important to change that paradigm and be able to come together in that unified effort.

Mr. Ralph Trujillo spoke: I am the Parks Supervisor of Martin Luther King Regional Shoreline. I work for East Bay Regional Park District. I wanted to thank the people and agencies involved with this project because it was a big project. It was monumental.

Todd actually took out three boats in San Leandro Bay right off the shoreline of Martin Luther King Regional Shoreline. There is one more boat there and when Todd told me that they were running out of funds I went to Plan B.

I said, let's make this an interpretive boat. I'll get the interpretive department involved. We'll get BCDC involved. People on the Bay Trail can read the transcript about what the boat is about.

I hear that this boat is a World War II tug so it has a little bit of history behind it.

I noticed a couple of weeks ago that the south side of the hull was missing. I asked Todd if had gotten money to disassemble the boat. Todd said that he had not. A few days later one of my rangers noticed someone walking in the mud flat with a chain. He asked him, what they were doing? The person said, I'm getting the metal off of that boat.

The ranger called up the East Bay Regional police but by the time they got there the guy had left. These metal collectors don't put out a boom. They usually bring a dilapidated box.

Right now the boat is an eyesore. Hopefully, we can figure out what to do about that boat.

Our marine officers cover two counties. We have over 110,000 acres of land and seven lakes and a shoreline from Big Break to Coyote Hills. We have about 70 miles of shoreline that we cover.

Our resources are limited and we are trying real hard to keep the shoreline in a pristine condition. We have volunteer programs to help us in this. Last year we had over 10,000 volunteer hours with 35 hundred volunteers. We partner with Save the Bay, Golden Gate Audubon and Coastal Conservancy and other agencies to do restoration work along the shoreline because we have three marshes in the park.

The California Clapper Rail which is an endangered species at Arrowhead Marsh is one the largest populations of these birds in the Bay area. We do a lot of work out there.

Mr. Brock de Lappe commented: I am the Harbormaster of Alameda Marina. In January of 2012 we helped organize a meeting on the Estuary of all the harbormasters, local police, Coast Guard and a variety of agencies to discuss the problem of anchor out vessels upon the Estuary.

Everybody present at that meeting agreed that we had a problem. Nobody had a solution. We had several meetings and really didn't seem to be getting anywhere. Everybody would claim lack of funding for inaction.

It was only when Jim Gordan of the Oakland Police Department managed to contact Todd Thalhamer from CalRecycle that this program got initiated and then brought in EPA and the very critical role of the State Lands Commission.

The State Lands Commission went out and posted these vessels with trespassing signs that allowed them to be impounded and then dealt with.

I applaud all those involved with the project. My question to the assembled group is, what has changed from the situation before and now? We do have a clean Estuary. Some officials have told me, don't count on us doing this again.

My question is, what has changed that's going to prevent a reoccurrence of the same situation? How are we going to keep the Estuary clean?

Number one, a very important agency that should be patrolling the Oakland Estuary is the Alameda County Sheriffs Department. The Harbor Patrol Division of the Alameda County Sheriffs Department has been disbanded for lack of funding. They only go out a bare minimum of times just to keep the engines of their boats properly running.

I would very much encourage whatever efforts could be brought to bear to make sure that the Harbor Patrol of the Alameda County Sheriffs is re-instituted.

The other issue is, people abandon boats in marinas and harbormasters then have no alternative but to do a lien sale and likely do not recover the amount of money that's due on the vessel. They have been selling these boats with the caveat of, I don't care what you do with it just get it out of my marina. That's been feeding the problem.

Part of what we have been doing has been an educational effort to the harbormasters not to dispose of boats in this manner because it just feeds the problem.

Private marina operators do not have access to AWAFF funding, the Abandoned Watercraft Abatement Fund that is available to public agencies.

I strongly encourage the cities of Oakland and Alameda to apply for that funding so that we have an alternative to deal with these vessels.

If something does not change then we're going to end up like Richardson's Bay. We don't want that to happen on the Estuary.

Who has jurisdiction in these areas. You would think that it would be easy to go out there and just tell somebody, you can't anchor here. It hasn't been that straightforward. A number of counties in the Bay area all have very precise, well-documented comprehensive anchor out ordinances. Alameda County does not have that. Most of the problem has been on the Oakland side.

Chair Wasserman asked for comments or questions from the Commissioners.

Commissioner Gilmore commented: On behalf of the city of Alameda who benefitted greatly from this project I would like to say how much we appreciated the partnership between these agencies and absolutely going above and beyond the call of duty. This has been an issue for years and the jurisdictional issue is huge.

It's a matter of finding the resources. The city of Alameda could not have come up with six to eight million dollars to do this. I want to express my gratitude to all those involved.

This is a case study in how different agencies can work extremely well together when there's the will to get something done.

Chair Wasserman added: I think I speak for all the Commissioners in echoing those comments. Thank you for a model project and a wonderful job. Hopefully we can find ways to replicate this in some of the areas that we need to do a similar exercise.

Executive Director Goldzband commented: BCDC's role in this was led by Adrienne Klein our head of enforcement. When we think of enforcement we don't always think about something like this. It could not have been done without the dogged determination that was demonstrated by staff.

Chair Wasserman announced: With that I would entertain a motion to adjourn.

12. **Adjournment.** Upon motion by Commissioner Nelson, seconded by Commissioner Gibbs, the meeting was adjourned at 3:44 p.m.

Respectfully submitted,

LAWRENCE J. GOLDZBAND  
Executive Director

Approved, with no corrections, at the  
San Francisco Bay Conservation and  
Development Commission Meeting  
of March 6, 2014

R. ZACHARY WASSERMAN, Chair