San Francisco Bay Conservation and Development Commission
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October 30, 2015

TO: All Commissioners and Alternates

FROM: Lawrence J. Goldzband, Executive Director (415/352-3653; larry.goldzband@bcdc.ca.gov)
Sharon Louie, Director, Administrative & Technology Services (415/352-3638; sharon.louie@bcdc.ca.gov)

SUBJECT: Draft Minutes of September 17, 2015 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 1:09 p.m.

2. **Roll Call.** Present were: Chair Wasserman, Vice Chair Halsted and Commissioners Addiego, Bates, Chan (Represented by Alternate Gilmore), Cortese (represented by Alternate Scharff), DeLaRosa, Gibbs (left at 3:29 p.m.), Gioia (left at 3:25 p.m.), Hicks (represented by Alternate Galacatos), McGrath, Nelson, Pine, Sartipi, Spering (represented by Alternate Vasquez), Wagenknecht (left at 3:12 p.m.) and Zwissler (arrived at 1:25 p.m.).

Chair Wasserman announced that a quorum was present.

Not present were Commissioners: Association of Bay Area Governments (Techel), Department of Finance (Finn), Sonoma County (Gorin), Governor (Randolph), City and County of San Francisco (Kim), State Lands Commission (Lucchesi), Marin County (Sears), U.S. Environmental Protection Agency (Ziegler).

3. **Public Comment Period.** Chair Wasserman called for public comment on subjects that were not on the agenda.

There was one public speaker who commented.

Ms. Patricia Lamborn addressed the Commission: I am a 24-year resident of Alameda, California. I have come today to ask that you oppose the granting of a permit for 46 parking spaces at 2305 Harbor Bay Parkway on Harbor Bay, Alameda, California. The permit application is planted on a parcel of land which is 2350 Harbor Bay Parkway. The Alameda Planning Board and City Council have approved a 100 room, five story hotel for this location. It is a tiny 1.17 acre of land. The hotel is planned to be built on the edge of the Bay.

A 100-room hotel requires 125 parking spaces. This parcel of land does not accommodate 100 rooms, a five-story hotel and that many parking spaces.

This parking permit application allows for 46 parking spaces along the street. I would ask that you turn down this application for additional reasons.

You have not reviewed the development of this section of the shoreline since 2013. There is a very extensive review in the third supplementary agreement between BCDC and Harbor Bay Isle Associates. This was when the parcel at 2350 was zoned for open space. You did an extensive review with a lot of requirements of what would happen if it were zoned for an office building.

No review was done of this hotel development, of the parking impact, of sea wall rise and of the consequences of placing a five-story hotel directly on the Bay.

You have jurisdiction over this and there would not be an application for a parking permit if you did not have jurisdiction of this shoreline.

I ask that you assert that jurisdiction now and turn down this parking permit. I believe it is manipulative. If you okay it this means that the Alameda Planning Board will go back to our City Council and Alameda residents and say that they have magically found the missing 40 parking spaces for the hotel.

The parking spaces would eliminate a lane of traffic, a swath of green land and a row of trees. This is not an appropriate use of our shoreline.

I ask that you consider this matter and hold a public hearing on it and do a comprehensive review of the development along that entire swath of land.

Chair Wasserman moved to Approval of the Minutes.

4. **Approval of Minutes of the September 3, 2015 Meeting.** Chair Wasserman asked for a motion and a second to adopt the minutes of September 3, 2015.

MOTION: Commissioner Scharff moved, seconded by Commissioner Wagenknecht, to approve the September 3, 2015 Minutes.

VOTE: The motion carried with a vote of 16-0-0 with Commissioners Addiego, Bates, Gilmore, Scharff, DeLaRosa, Gibbs, Gioia, McGrath, Nelson, Pine, Sartipi, Vasquez, Wagenknecht, Zwissler, Vice Chair Halsted and Chair Wasserman voting, “YES”, no “NO”, votes and Commissioner Galacatos abstaining.

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

a. **New Business.** Does anyone have any new business to propose?

b. **Report on the BCDC 50th Anniversary Summit.** We had a very successful summit, the formal piece of our 50th Anniversary Celebration. It was also the formal kickoff of our five to ten year public education campaign to determine what we are going to do to adapt to rising tides in the Bay Area. We had two exciting panels and a very inspirational keynote speaker, Bill McDonough, an architect, designer and creator who thinks a lot and talks a lot about public spaces, design, how we can act in and control our words and he speaks in the words of poetry. He talked particularly about how values need to dictate what we think is value. There were a little over two hundred people there from the public and the private sector. We will continue our efforts and make some of that material available.

c. **Note the State of the Estuary Conference.** I continued the campaign this morning in addressing the San Francisco Bay Estuary Institute's Annual State of the Bay Conference. The topic of my talk was, where can the shoreline be? I also asked the question, what can we do about it? Most of the issues of where the shoreline will be are out of our control. I did talk about sea level rising at least three feet in the Bay over the next 50 years. The report from James Hanson, former chief climate scientist for NASA says that our current science reports are way too conservative. The Antarctic ice sheets are melting at a rate that may be ten times as rapid as has been predicted and he predicts that sea level rise worldwide could easily rise ten feet in the Bay Area and the world over the next 50 years. Regardless of whether it is three feet or ten feet, we are going to have to increase our pace of taking action. I talked about one of the very important steps that this agency has taken is the ART Program. We expect this program to spread to all nine counties. The focus of the program is to assess what the vulnerabilities to sea level rise are and what we think we can do about it. It really does start addressing the, *what can we do* leading to the, *what should we do* and ultimately to the *how do we pay for it*? Yesterday the ART Project Portfolio went live on our website. It is a very good educational and practical tool. It demonstrates the kind of leadership and communication that we can do even when we have way too limited resources. What is coming out of this will lead this to become much more public. We have a huge amount to do but we need to take pride in the positive steps that we are making.

Commissioner Gilmore commented: I wanted to say that not only was it very informational, it was very enjoyable and it looked like everything ran like a well-oiled machine. Congratulations to everybody who had a hand in putting it together. It took an inordinate amount of work to pull this off and it was one of BCDC's finest moments.

Commissioner Nelson chimed in: I also wanted to thank the staff and Chair for the hard work on an excellent program and the forward-looking program that was presented. It was a big-picture discussion of how to tackle challenges in a complex urban environment. This was a perspective that will serve us well as we look at our next 50 years.

Vice Chair Halsted stated: I would like to echo those comments and tell you that it was Zack, Larry and staff who put this together. It was masterfully done and really well executed and inspiring. It was a great event.

Chair Wasserman added: A significant amount of credit goes to the Cathie Warner Bennett group who served as the organizer for Friends of BCDC in putting the program together.

Commissioner McGrath commented: It was provocative and inspirational and today Zeke Grader was honored. It is important to be recognized and inspired on the way and know whose shoulders we stand on.

Chair Wasserman added: I also want to thank Joan Lane, the widow of Mel Lane the first chairman of BCDC who gave a very significant contribution to the summit and to Resources Legacy Group who are putting together a very significant contribution. Friends of BCDC will continue its fundraising efforts for ongoing activities particularly connected to ART.

d. **Next BCDC Meeting.** Our next meeting is October 15th and it will be at the MetroCenter in Oakland. At that meeting we expect to take up the following matters:

(1) We expect to have a panel discussion on the California Water Fix.

(2) We expect a briefing by staff on the ART Project and Portfolio.

(3) We will have a briefing by U.C. Berkeley Professor Kristina Hill on her Climate Resilience Institute Project that analyzes various types of shoreline adaptation projects.

e. **Ex-Parte Communications.** Chair Wasserman asked: Does anyone wish to make a verbal ex-parte communication report. These do need to be filed in writing but you have the option of doing this. This is required on contacts outside of this meeting with people about pending applications or enforcement actions. I am in the process of filing a series. I have had some conversations on an enforcement matter concerning Scott's in Oakland and the use of that pavilion.

Commissioner Gilmore reported: I have had a conversation regarding that same enforcement action.

Chair Wasserman moved on the Executive Director's Report.

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

Well, it's been quite a week so far. It was a wonderfully creative summit yesterday. Jeff Pane is the Director of the Office for Coastal Management of NOAA, our great federal partners. Jeff said to me that it was wonderful being in the Bay Area where one could discuss issues like this so openly, so transparently and with such a forward-looking agenda. I want to thank you all for helping BCDC remain the preeminent coastal management agency in the United States.

It isn't news to any of you that some of the decisions you have to make as Commissioners are difficult and complex. For example, today's agenda includes a permit application of a kind that BCDC has not contemplated in its 50 year history – imploding part of a bridge. Never let it be said that nothing new comes our way. One of the tasks of your staff is to make the familiar seem new and make the new seem familiar. I think that you will experience that today.

Speaking of new, I am very pleased to let you know that we have identified someone to fill the open position in the enforcement program. Unless you direct otherwise, we shall hire Matthew Trujillo. Matthew has a BA from U.C. Santa Cruz, a teaching credential from U.C. Davis and earned his Master's Degree in Environmental Science and Management from U.C. Santa Barbara's Bren School. Prior to joining our staff, Matthew was a senior lead auditor at a firm that certifies manufacturers and distributors of timber products seeking to demonstrate their commitment to responsibly managed forests. He has also worked as a social worker and a teacher.

BCDC plans to hire Jhon Arbelaez for a one-year appointment as a permit analyst. Jhon earned his BA in Environmental Studies from Florida International University and a Master's Degree in International Environmental Policy from the Middlebury. He has worked as an Environmental Scientist assessing soil and groundwater, as a community coordinator, as a Peace Corps volunteer dealing with soil and water conservation issues, and, most recently, at Earthworks, focusing on energy development and production issues. He will start work on October 5th unless I hear otherwise.

One more bit of hiring news – but not about BCDC staff. Commissioner Geoff Gibbs has become a state employee! Last month Geoff started in his new position as Deputy General Counsel for Business Transactions and Land Use for the University of California system based in the Office of the President in downtown Oakland. We are pleased to have you onboard.

I am also pleased to let you know that NOAA's Office for Coastal Management has approved BCDC's 2016-2020 Coastal Zone Management Act Section 309 Assessment and Strategy. You will remember the very crisp presentation that our former staffer, Rebecca Coates-Maldoon, made to the Commission earlier this year on that strategy which supports your Strategic Plan and we are very excited that it has been approved.

Finally, I am pleased to let you all know that BCDC has launched the Adapting to Rising Tides (ART) Program Portfolio on our ART website. We will give you a full briefing on October 15th. The whole point of the ART Portfolio and the website is to provide outside of the ART community an introduction and a way for them to actually use ART. Many people are interested in what the findings are by sector. With one click you are referred to a huge raft of information that is very well organized. We also demonstrate how ART has been used and how successful it has been. An official at NOAA has said about this portfolio within the last 24 hours, quote, "This is the first comprehensive, easy and open-access compendium I have seen that includes all the tools, worksheets, surveys, matrix templates et cetera you need along the way to conduct a high-touch stakeholder process for asset-by-asset adaptation planning." Sara Polgar is staffing the Portfolio and managing our ART help desk and will be part of the presentation that you will have next month. All of the staff working on this deserves great credit.

7. **Consideration of Administrative Matters**. Chair Wasserman announced: Item 7 is Consideration of Administrative Matters. Does anyone have a question or concern to raise? (He received no comments.)

Chair Wasserman moved on to Item 8.

8. **Public Hearing and Possible Vote on Caltrans' Application for Amendment Thirty-Eight to BCDC Permit No. 2001.008 (New East Span of the Bay Bridge) to Use Synchronized Implosion to Remove a Pier of the Former East Span.** Chair Wasserman announced: Item 8 is a public hearing and possible vote on an amendment to the permit for the new East Span of the Bay Bridge proposed by Caltrans, to implode a pier of the former East Span. Bob Batha will make the staff presentation.

Chief of Permits Bob Batha addressed the Commission: Before I introduce the applicant I thought I would provide a little background on BCDC's permit history with the East Span of the San Francisco/Oakland Bay Bridge.

In November of 2001, the Commission issued BCDC Permit No. 2001.008 authorizing Caltrans to construct the new East Span of the Bay Bridge. That permit required that within seven years of opening the new East Span to vehicular traffic, that Caltrans demolish the former East Span of the Bay Bridge. At that time, it was anticipated that the removal would be accomplished mechanically and that all material would be disposed at upland locations outside of the Bay. This requirement was included in all regulatory permits authorizing construction of the new East Span.

Since that original permit was issued in November 2001, the project has been revised many times. BCDC has issued 34 amendments and because some amendment requests were subsequently withdrawn, the amendment request before you today is the 38th.

Caltrans is coming to you today requesting authorization of a major change to their original authorization and requirements; the use of controlled explosions to demolish a marine pier of the former East Span.

Here to tell you more about that proposal is Stefan Galvez, Environmental Manager for the San Francisco Oakland Bay Bridge. And Brian Maroney, Toll Bridge Program Manager and Chief Engineer will be up next.

Environmental Manager Stefan Galvez presented the following: I am representing Caltrans and we also have a number of staff to help us answer questions. We want to thank the Commission for all the years of support that you have given us on this project. You have certainly helped make the transportation system safer.

During the last three years your staff has helped us develop a much better project. We shared this idea of using a controlled blasting technique to remove Pier E3 with you in April of this year. Pier E3 is the largest pier for the original East Span.

We have worked very closely with federal and state agencies for the last three years. We have also engaged all the different stakeholders in the community. The environmental community has been helping Caltrans develop this project and refine it. We also want to show our appreciation to them. We believe we have a better project because of their involvement.

Today is a special day because if we are successful with the use of controlled blasting techniques, we should be able to remove this pier which accounts for about 17,000 cubic yards from the Bay in about six seconds.

There are some associated activities that will go along with that. The blast will take place for six seconds.

We are going to show you how we are going to accomplish that. Dr. Maroney will go through those details and then I will talk about the environmental aspects of the project.

With that I am going to turn it over to Dr. Maroney. I believe we will need more than 20 minutes to make this presentation. We will try to shoot for about 30 minutes. We ask for your patience.

Chair Wasserman added: It is an important issue but squeeze as much as you can.

Dr. Brian Maroney addressed the Commission: I have worked on several projects with BCDC within the last 20 years. I have worked with your Engineering Criteria Board (ECRB). It has been an absolute pleasure. I feel like I have learned a lot from those folks.

Congratulations on your celebration and you have a fantastic challenge on sea level rise and it is something that is near and dear to me too.

I will share with you the last two years of work using the screen before us. I believe when we are done that you will be extremely confident in what we are going to do.

Here we have a picture taken about a year and a half ago where the cantilever is absolutely separated which is really fantastic. This is an 80 year old structure which means the material is World War I technology. It would not pass a steel test of the simplest type today.

It has been through an earthquake and it has been used and modified. It used to carry trains and now carries trucks that it was never designed for. It has done well but just like the old Carquinez Bridge, we had to take that structure down. Some of you remember that it was closed for quite a while before it was taken down. We have that same kind of challenge here.

This span was the greatest challenge, structural engineering wise, on the entire Bay Bridge because I worked on the East Side, the West Spans and the West Approach when difficult decisions had to be made.

Why was this so challenging? It was because we originally were going to take this down placing piles underneath the center span. That center span is 1400 feet, a fantastic span. That center span is so long that these back piers were in tension. When you look at a big pier like this, you think it would be holding up; it was actually holding down. That is how big that center span was.

The California Department of Transportation has not worked alone on this job, constructing the new bridge or taking down the old bridge. It is an environmental team of planners, environmental scientists, engineers and contractors. It takes all of these to give a total perspective.

We were challenged by the environmental resource agencies involved and our own environmental scientists who said we do not want piles in this water. They are damaging to the water quality. They are damaging to fish. They are damaging to mammals. Can't you do this without piles?

We stepped up and did the most sophisticated structural engineering on the new bridge and the old bridge by taking this down without a single pile in that span. It was the best environmental solution.

It made the engineering much, much more complicated; much harder. It went faster and it was cheaper. Just because something goes faster and cheaper it does not mean that it is of lower quality for the environment. I want to make sure you understand the genesis of doing this was environmental stewardship.

It is not an easy thing to take this structure down. We broke up the removal of this structure into three different parts. We did this because it is a different challenge at each location.

Over on the island where the cantilever is it is right next to the new public bridge. I needed to get that old bridge down. The old bridge was still a threat to the travelling public seismically.

It was also the most challenging structural engineering work on the whole job. We put it into the first contract. We went out with that one first because it was needed for public safety.

The second contract is all the high steel of the 504s and the 288s. This refers to the length of the trusses. This was high steel covered with lead.

There are special challenges with the birds there. We need to protect colonies of birds that live underneath the 504s.

It is major steel structure with major structural engineering, high in the air; it has got its own environmental challenges that we need to respect. It needs a certain type of contractor.

We wrote the specifications for the right kind of contractor. We put extra specifications and requirements for the contractors to make sure that we had the right kind of people. It is underway right now.

The final contract is the removal of the marine foundations. First of all, they are concrete. Second of all, it is not major marine construction on the water. It is major marine construction in the water. It is submarine construction which requires a very different kind of contractor.

So we broke it into components to allow ourselves to optimize and get the best possible team for each piece.

We have netting on the East Span of the Bay Bridge to protect the birdlife that, at times, lives there. You will not find this on any other bridge in the Bay Area.

The cantilever on this span of the bridge was once upon a time as deep as 200 feet and as far out as 700 feet without one single support or pile.

In the winter of 2014 E3 was now completely separated.

In June of this summer you can see that the steel is now all down. In July we have excavators with large ram hoes up top with protection for the environment. In August of this year you see that most of the concrete is actually gone. The skirt is gone. The fender is gone. In September we actually have a timber drilling platform and blast mat over the top of it.

This is a top of view of the structure underwater. If you magically went down about 100 feet and you cut a horizontal plane across you would see 28 cells with concrete walls that are about three feet thick. They are about 20 feet by 20 feet. These are large open cells.

This structure goes down about 280 feet so this is about a 20-story building. It goes down through the water, through the mud and into dense soils. It does not go to rock.

We know from our interactions listening to environmental planners and scientists, water quality experts, experts on fish and experts on the birds that dive in the Bay; they asked, can you remove this pier without piles?

Every time you drive a pile over and over and over again, it takes months and months and months; and eventually I have to take out the piles. That stirs up the muds of the Bay. We were originally talking about over 1,000 piles to take it down.

We asked ourselves, can we take this down in a smarter way?

When you go down to the bottom of the Bay you do not hit good soil. You hit young Bay mud. This is the stuff that when you walk along a creek bed and your foot goes down about a foot and you pull your foot out and your shoe stays in it; that is young Bay mud. It has no strength whatsoever.

Normally a pile is a vertical element like a column just holding up vertical load. But when you drive a pile for a coffer dam you have to drive it through the water then through that mud and down into competent material. And what it is doing, a coffer dam, it is a dam. It is holding back water, 50 feet of water, and then another 50 feet of young Bay mud.

The piles are no longer vertical. They take lateral load. The water is pushing against the piles. You cannot have a coffer dam pile bending like this. So, how do you keep it from bending?

When we are taking this out we have to consider the soils that are here. The East Span site is the poster child for poor soil conditions for construction.

We looked at a number of different alternatives.

There two mechanical means to accomplish this.

I can go at it with a ram hoe. I have had many projects where we have done this. It is a giant jackhammer on the end of big caterpillar excavator and you just ram at the structure for days and days and weeks and weeks and months and months. You can do this underwater. This is done at all times of the year but you still need a coffer dam.

You can also use a cable saw which is a cable about the size of my little finger and there is a ring about every six inches that has industrial diamonds glued to it. You run this through the structure over and over again. This process takes a very, very long time. I have done this.

I hired a geotechnical firm to design a coffer dam for me and it requires 36 piles 54 inches in diameter. There are also all kinds of sheet piles that are required as well. You have to drive and vibrate. When you vibrate the sea mammals are disturbed and harassed. When you drive piles you generate a lot of noise and that is a problem for the fish.

With new biological opinions that have been out since 2012 you cannot do that any time of the year. You are very limited. And this is also very risky. You have to come up with another solution.

We considered these alternatives. These ways of removing a structure are bear skins and stone knives. This is the brute force method. It will take a long, long time and we are not taking advantage of being smart.

Given the windows when I am allowed to drive and vibrate piles I am going to be out there for a ridiculous number of months. I know that because I just had to place some piles out in the Bay. We had to shut down for months. We had to wait for the next window.

I design bridges for a living and it has been a fundamental value of ours to touch the Bay lightly.

I want to remove this area you see on the screen and I want to place it down deep under the soil. I do not want to use diesel oil. I do not want to ask and drag fill material out to the Farrallon Islands. I do not want to take it over to Alcatraz. I do not want to have a big carbon footprint.

What I am planning on doing is drilling holes down through the pier 50 feet below the Bay surface to the mudline and then I want to go an extra 25 feet only in the center walls. I want to keep the outside wall there because I want to keep that hole open. The idea is to drop this material right down and have it be entombed right here.

We have thought long and hard about the design being environmentally safe. First of all, let's not go with one big blast. We have broken it into approximately 600, 588 different charges. They vary in sizes from about 21 pounds to about 35 pounds and they are all sequenced at a different time. It will be like a sound wave going out. So instead of one big shock you have many, many smaller ones. The pressure wave that goes out is much, much smaller.

Now it lasts longer. It is six seconds. The peak gets knocked down a lot and that is the biggest threat.

Second of all, we are employing something that we developed with BCDC that we now use all over California called, a marine pile driving energy attenuator. We pump air down through a series of pipes that are specially designed with small holes at a certain frequency and we create a wall of bubbles. When a shockwave passes through it, it does work. It actually compresses a bubble and that is work. So by the time the shockwave gets to the other side of the wall, energy has been reduced so the peak amplitude and the energy are down.

There is also a scatter issue. And there are also reflections.

We have taken that idea and we have put it on steroids. Now, instead of a pile driving energy attenuator, it is a blast energy attenuator. The idea is to have a series of steel frames with the pipes in them and the holes and the frequencies are designed, air compressors up above; we deploy them out around the pier before the blast, turn the air on and create that wall of air that knocks down sound pressure levels and has an 80 percent reduction of the energy.

I have learned something over 20 years. Go practice once. Do it once on land some place, then go do it out on the water once. About a month ago we built two of these and deployed them out in the Bay and with your blessing were able to practice. We know that these work very, very well.

I will now show you a video that through animation shows the process that will be used to accomplish our objectives. We use this video so we can be as transparent as we can to the community at large.

We will have a 500 foot zone where we are going to make sure that if there are any diving birds then we do not blast if we see them in that zone. We also allow no people there. That is where our blaster in charge will be and our lead environmental professional will be there with him.

We also have a marine traffic safety zone (MTSZ) identified and we will be using CHP on vessels to enforce this. There will be no divers in the area. The CHP has high-speed marine pursuit vehicles.

California Fish and Wildlife has asked us to do scientific trawling afterwards and we have already identified environmental zones for peak shockwaves and cumulative, potential fish damage. We have identified those and we have plotted them out.

We also have zones where we are identifying where no birds can be. If we see a sea lion, we are not going. If we see an elephant seal, we are not going. If we see a harbor porpoise, we are not going. We have layers of observers strategically placed at design locations to be observing and watching. And they are not doing this at the last minute. They are going to be out there at first light.

We are going to make sure that this is operational and we are going to practice the week before.

Our goal is to do in six seconds what would take us nine months. I want to get about eight months of work done in six seconds. Stefan Galvez is going to share with you how we are picking the time to have it be when most of the fish are not present.

Nothing is perfect. I am very confident that most of this material is going to go down because this technology, imploding a building, is done all the time in New York. It is done all the time in Las Vegas. It is done all the time in Los Angeles with a building next door not even losing windows.

I expect there will be some clean up. I am anticipating something like a week or a month of clean up. I am responsible to the Coast Guard to clean up.

Once we clean that up it will take a good storm, probably a whole season – if we are still in drought it might take two seasons – but the flushing of the Bay waters back and forth will fill that up, it will silt up.

We have specialists in fish health and behavior to take a look at the fish that the trawlers capture with their nets.

I want to make sure you know who designs this and who checks this. Chris Traina and I dreamed this up with EMI, Earth Mechanics Incorporated. Kiewit/Manson has a long history of doing responsible construction in the Bay. They are a highly qualified company. Kiewit is another highly qualified company and they are very meticulous about following the rules and safety. I have a high degree of confidence in their design and their quality control checks.

With regard to an independent check of results I have Alan Thompson who has 30 years of experience and he has taken out piers like the Woodrow Wilson Bridge across the Potomac in Washington, D.C. That is the kind of experience we are drawing upon. Chris Traina was my right-hand man in the California Bridge Assault Advisory Panel when after 9/11 we had to deal with some explosive issues. Chris is the engineer I counted on.

Normally Caltrans does low bid. My design team, my environmental team is not low bid. They are picked for the highest quality.

When it comes to the design people, we used CMGC. We did not go low bid. We interviewed and picked the best people for the job. I have worked at Caltrans for 25 years and sometimes I get the team I want and sometimes I do not. Sometimes I am financially well supported and sometimes I am not. For the last two years I have been working on this with a great team. I have been able to hand pick the people and I have been well supported all the way up to right underneath the governor. I have had nothing but good support.

This is an important thing for you to hear. As far as I know, I am not going anywhere until this is done. I am putting my name of this and this team does too. My team is here and they are not walking away until this is done properly.

This is not just some team that is going out and loading up a lot of explosives and going away. This is a highly designed, engineered program. With that I will pass it back to Stefan.

Mr. Galvez addressed the Commission: We have put a lot of work into the environmental analysis. I will discuss in detail the environmental aspects of the project.

We have 14 years of working in this particular setting of the Bay, protecting and being good stewards of the environment.

The biggest challenge is that because we are working in the water, how are we going to avoid impacts to some species.

The idea is to have exclusion zones for the species affected that we can visually see.

We are actually working with the regulatory agencies to determine the best time or what is the least amount of species that will be here at any particular time.

We relied on the Bay Study data that is developed by the California Department of Fish and Wildlife. They do trawling every month and they go out into the Bay and they know the distribution of fish in the Bay.

November was the month of the year where you do not have listed fish species or you have the lowest distribution of fish. That is the case for the Longfin Smelt. It will be there and we will not be able to avoid some take but the numbers are rather low at this time of the year.

We have two species of birds here that are diving birds. The concern here is, if a diving bird is in the water column it may suffer the same kind of trauma as a fish species or marine mammals. The way we will manage both of the listed species is to actually have a 500 foot exclusion zone and rely on biological monitors. If they see one of the members of these species diving in the water or in the area, we are going to delay the blast until they leave.

We are also going to have deterrence to make sure that they do not feel too comfy. At the same time they are very unlikely to be here in November.

Marine mammals are a much more challenging issue. We have four different species out here. The California Harbor Seal is the most likely species to be in the vicinity.

We also have sea lions, harbor seals and the Harbor Porpoise which are very unlikely to be here at this time.

We have worked closely with NOAA. We did obtain an incidental harassment authorization (IHA) which established some parameters for us to manage the species. There are two levels of harassment which are Level A and Level B. We have established some no-go zones for these different mammals.

We have 13 highly-trained monitors that will be distributed through the area. We have boats positioned in the area. We also have deterrent devices that emit sound levels which will encourage marine mammals to leave the area.

Harbor Porpoise hardly ever come into the Bay. They are very unlikely to be coming into this area. We also have extensive monitors for this area.

We are working with the Marine Mammal Center and they will be standing by during the implosion as well as three days after the implosion to continue monitoring in case there are some stranded marine mammals in the area.

Salmonids are not going to be here during this time of the year. The Longfin Smelt may be there in some small numbers and so may the Green Sturgeon.

We do have a biological opinion from NOAA Fisheries and we also have an ITP from the California Department of Fish and Wildlife.

The Department has committed to purchasing four acres of Longfin Smelt credits at a mitigation bank. We are working with them to purchase those credits to preserve that land in perpetuity.

We are talking about a 1,040 acre area of essential fish habitat that will be impacted by the noise and also potentially water quality. This impact will be very short lived and most of the fish are not going to be there.

There will be a spike in the turbidity of the water in this area. There will be a plume generated with higher turbidity that will travel with the currents and the tides. It will start from the pier and travel south. We do not expect to see that turbidity plume move into eel grass beds that are in the area.

We are doing a very extensive monitoring effort for pH, toxicity and turbidity. We will be doing this for one week after the blast and throughout the blast.

Within 50 minutes of the blast we will be back to our water quality objectives. It will be very short-lived and will be fully reversible and within two to three hours we are back to normal conditions.

We are asking you to take action today because November 7th is our D-Day. We have chosen this day for the day of the implosion, Saturday in the morning. We have seven weeks to go.

In order to complete this task we need to load explosives, we need to fabricate the blast attenuation system, we are drilling the holes and so we need your help to get us there. One week prior to the blast we are going to test our sound acquisition systems.

If you have any questions we are here to answer those.

Chair Wasserman announced: We will open the public hearing. I have no cards for public speakers. I would entertain a motion to close the public hearing.

MOTION: Commissioner Wagenknecht moved to close the public hearing, seconded by Commissioner Vasquez.

VOTE: The motion carried with a vote of 16-0-0 with Commissioners Addiego, Bates, Gilmore, Scharff, DeLaRosa, Gibbs, Gioia, McGrath, Nelson, Pine, Sartipi, Vasquez, Wagenknecht, Zwissler, Vice Chair Halsted and Chair Wasserman voting, “YES”, no “NO”, votes and no abstentions.

Commissioner Nelson inquired: On page 4 of the application summary under mitigation, the second paragraph; the document says that the proposed controlled implosion would likely cause additional impacts not originally evaluated or mitigated in the Final EIS and subsequent project amendments. The first question is, what kinds of impacts would those include? The second question is, if those impacts in mitigation were not analyzed in the environmental document, do we have an adequate environmental analysis for this project?

Mr. Galvez replied: In 2001 when we completed the EIS we did not have a full analysis of the potential impacts for the removal of the piers because we had an idea on how we would be removing them via mechanical means. And now this is a new method that we want to employ so we have completed our analysis and we do have a revalidation of the environmental document which indicates that we do not have new significant impacts on that space.

Commissioner Nelson continued: And for staff as well, you are confident that the supplemental analysis that covers the implosion approach that was not included in the first EIS that the environmental analysis is adequate for our purposes?

Mr. Bob Batha answered: Yes.

Commissioner Gibbs had a comment and a question: The happy observation I have is I have an eight year old boy whose life has kind of paralleled the construction of this new bridge and he is fascinated by the whole thing. He has been very troubled after the new span has gone up to why the old one is still there and every time we cross the bridge he asks, why is it there? And I say, I don't know. I think there is a plan. They are going to be taking it down. They are going to figure out a way to do it. And he has said to me, well, why don't they just blow it up? He will be very pleased.

I would like to ask this of engineer Maroney. So the more difficult part of the conversation is you are asking us for permission to conduct explosive operations in the middle of the Bay on one of the iconic structures of the Bay.

I saw you on television and you were answering questions about the reinforced rods and the corrosion of the rods on the structure. They are a certain type of steel and as I understand it, they are corroding very fast and that is causing a problem. Four experts called on by The Chronicle said that you would never use that kind of steel in waters that were exposed to salt like the Bay and that is Metallurgy 101.

Dr. Maroney replied: The Chronicle is wrong. When you build something that has a billion things on it, if you think everything is going to be perfect, that is not the way it is.

The contractors that built that bridge have really done a fantastic job. However, anytime you build anything you have to go back and see if all was done right. When you build a house or a bridge, 85 percent of the time a contractor will give you more than what you actually paid for. About 14 percent of the time you get exactly what you paid for and nothing more. About one percent of the time it is not what you paid for. It is not what is in the plan. And then what you have to do is you have to say, what do I have? You have to evaluate what you got. I want to go out and test these more than 400 rods. I do not want an opinion.

What I did is I actually pulled out the rods and I sent them to a laboratory. We have no evidence that the steel itself has corroded. The steel has a protection on top that is a zinc coating. And that zinc coating is there because you have to build bridges out in the rain.

Absolutely, the grouting was not done right. And we caught it. The contract for this contractor is not even closed yet. And we are going back and forth saying; hey, it's not fixed yet. And we have lots of professionals involved in how that is going to be worked out.

I am personally on that and I brought in outside folks and there is a peer review panel. The TBPOC created about a 22 member panel to look over my shoulders which I really love. I love it when BCDC comes in and looks over my shoulder. That one detail was not built the way it should have been and I am proposing a plan on how to repair that grout.

Now the only time the anchor rods on the new bridge would come into play would be in a very large earthquake. There are probably a dozen areas on the bridge that had less than perfect construction work. Our evaluation process is something like your Engineering Criteria Review Board process.

When you find that one percent that is not what you designed, I go back to the calculations and we find that we put plenty in. If I need one inch I do not put in .9 of an inch, I put in one inch. You always put in a little extra.

Sometimes we say, sorry Mr. Contractor, rip it out and fix it; and by the way, you have to pay for it. This is where we are right now. But that bridge is safe.

Commissioner Gibbs continued: Whether it is one percent or 12 percent that went very, very wrong, it is a slow-moving problem that is going to be costly and time-consuming to fix but it can be fixed because it is slow moving. By your own description, this is implosion going to be a six second explosion. What did you learn about what happened with the problem with the rods and how are you applying those lessons to make sure something like that does not happen again?

Dr. Maroney responded: There are always lessons learned. This is my personal opinion from this. Contractors are required to do their own quality control. We do quality assurance and it is usually just a percentage. When it is important, you do a 100 percent check.

One of the lessons I learned is that you need to spend more money on quality assurance.

The cable on the new bridge is a one-in-the-world type. I have my own personal risk register. The cabling on the new bridge was at the top of my list. This was a high-risk recognized challenge and I went at it with everything I had and it worked beautifully.

Bolts are kind of the simple part of the bridge. An honest lesson learned from this is that it is not just the high-tech, fancy stuff that can fail; you got to pay attention to the simple stuff as well. Grouting is not a difficult construction activity. Water should have never been in that hole. Those are two brutal lessons and I have thought a lot about it.

Commissioner McGrath had a question: I have a question for staff. On page nine of the application summary under, Impacts to Fish and Wildlife there is a period there that should not be. Can you put that on the record?

Mr. Batha replied: We did catch it. A phrase got dropped.

Chair Wasserman added: And it should read –

Mr. Batha continued: It is the recommendation.

Chair Wasserman responded: - it is in the recommendation so we will cover it. Thank you.

Commissioner McGrath continued: There is a mitigation proposal to purchase four acres of mitigation credit for the Longfin Smelt. And even though the probability of them being in the area is very low, there is still a potential. In principle I more than buy the idea that when you are faced with an endangered species, you are better off improving their habitat, their carrying capacity, their numbers; but, can you walk me through the reasoning as to why four acres works in this case?

Mr. Batha answered: In honesty I cannot. This was determined by the California Department of Fish and Wildlife. They estimated the number of Longfin Smelt that might be either killed or injured in the blast. It was about 0.1 percent of the entire population of Longfin Smelt in the Bay. That was the basis of their calculations. There have been extensive negotiations between Caltrans and all the resource agencies about these potential impacts and the appropriate mitigation.

Perhaps Caltrans might be in a better position to tell you how they arrived at four acres.

Commissioner McGrath responded: I am interested in that or at least in what is behind the idea. I can understand that the probability is very low. I want to understand the idea of what we are actually doing to recover the species to put it in a context.

Mr. Galvez commented: I will try to address that question. It is not a simple question. There were extensive negotiations with the Department of Fish and Wildlife. What the Department did was that they looked at the previous project, the Central Valley Project and they extrapolated the take. Although it was not the same level of impact, they used that project as the basis for our mitigation here. They had required a level of mitigation for that project and they extrapolated those numbers and used it here.

I want to voice a correction. The level of take does not necessarily mean that we are going to be killing the Longfin Smelt. The assumption was that there would be a take but it does not necessarily mean that we are going to kill that number of fish.

We developed a specific number of fish that would be affected based on the average of the last five years of Longfin Smelt in the area during the month of November. That density was extrapolated out to those distances where damaging impacts from the blast may be experienced..

Commissioner McGrath pressed for reassurance: Just reassure me that there is a real project that Caltrans has underway that will help recover the species and you are helping pay for it in a proportionate way. There is a real project that has either been constructed or will be constructed. Is that correct?

Mr. Galvez answered: There is an approved mitigation bank. There are actually two banks that all agencies have approved. Liberty Island is the name of the bank. It has all federal and state approvals. They have a project and we will be writing a check.

Commissioner McGrath pressed on: And there is some monitoring to know whether or not these mitigation banks are effective?

Mr. Galvez replied: This is a turnkey project. The agreement with the Department of Fish and Wildlife is that Caltrans will provide the financial means and then Wildlands Inc. has the responsibility to conduct mitigation, maintenance and the actual work.

Commissioner Zwissler commented: On the off chance, the less than one percent chance that something goes wrong; what does it do to your schedule and what happens if you delay for the month of November? Does that mean we wait for another year? And also, unless

I am mistaken, it looks like you have been planning to get this permit approval all along because there is a lot of stuff being done and money spent in anticipation of all of this. I am curious from the staff how the sequence of this works.

Mr. Batha responded: They have anticipated this approval. The staff has advised them that everything they have done thus far has been done at their own risk, that we could not guarantee approval. Caltrans is well aware of that.

When I make my presentation for the staff recommendation, you will hear me say that after studying this extensively pretty much all the resource agencies and your staff have concluded that in the short term there will be less impacts to all of the Bay's natural resources with this six second implosion versus the 43 months of just building the coffer dams which does not include the actual demolition of the pier.

The construction of a coffer dam would generate the kind of noise and sound pressure waves where most of the studies on fish have been done.

Commissioner Zwissler added: I am not debating any of that, I am just curious about the process.

Mr. Batha replied: They clearly understand that they are at risk.

Commissioner Zwissler asked about scheduling: What about the scheduling? Does it skip a year?

Mr. Batha replied: I believe so. Caltrans may want to answer that. We gave them this year and next November in case something was missed.

Mr. Galvez addressed this issue: Again, we worked with all the agencies and determined that November was the best month of the year to do this. December may also be acceptable, but right now the permits that we have, the biological opinion, the ITP, the original Water Quality Control Board certification and the U.S. Fish and Wildlife permits all point to November as the time of the year to do this.

We would lose a year if the permit is not issued.

Commissioner Bates had a question: We have a handout here. I am looking at page 9, slide 17 of the presentation; if you look at slide 17 it does not compare to what we have in our book. Which slide is correct?

Mr. Galvez responded: What I tried to convey on this slide was that the density and the numbers were pretty low and that is indicated in green.

Commissioner Bates observed: The other slide you had up on the screen had it green all the way down the column. And now this different slide does not show green all the way down. I am just wondering, which is the correct slide?

Mr. Galvez explained: With the exclusion zones that we will use to manage the marine mammals and listed birds, we will not proceed if they happen to be there, then all the squares will turn green. That was the message we were trying to convey with the difference in slides.

Commissioner Bates continued: I am shocked because when you had it up on the screen you described it as all green down the column. (Vice Chair Halsted and several Commissioners reminded Commissioner Bates that both slide versions were shown on the screen) Okay.

The other question deals with, how much money do you think this will save and how much time will this actually save?

Dr. Maroney responded: With respect to dollars, a conservative number is 100 million dollars. And that is for, if this tool is allowed to become something that the California Department of Transportation, the Bay Conservation Development Commission, and all society and community members of the Bay can start to use to do the cleanup that we all need to do.

Caltrans many times abandons piers in waterways up and down the state of California. Sometimes it is too difficult to remove and the community will just give up.

I am not asking for a permit for all the piers. I am asking for simply this - let me try one with the scientific community as well as the engineering/construction community observing. If we all do well and we are successful and we do everything we told you we would do; I am probably going to come back to you and ask for a permit for all of them.

It is a demonstration and we are not saving 100 million dollars on all of them. I cannot tell you the exact number.

As we go we learn more and more about the Bay and we learn how to be better stewards. I am thinking that it is a lot more than 100 million dollars because if we have to use mechanical means everywhere, then I will have to sit down and work with all the environmental resource agencies, my own environmental staff, my own construction staff and design staff and put together windows of when I can drive, when I can vibrate, when can I tap and that is how you get to those extreme numbers.

We will save a lot of time. I think people would start to give up on some piers.

Chair Wasserman had a comment and a question: The piles for the Old Bay Bridge that are either being imploded or removed were placed before BCDC was created. There are pre-existing circumstances over which we did not have jurisdiction.

Mr. Batha commented: It was around 1933 or before.

Chair Wasserman continued: The old method has huge impacts and would remove everything entirely out. It would no longer be there.

Dr. Maroney had a correction to make: What we do up and down the state with the Corps of Engineers, the Coast Guard and the federal government is, we remove structures to the mudline. The idea is that there be no fill in the water, no threat to marine navigation and no obstruction to water flow under either system.

Chair Wasserman further inquired: Clearly this has passed Coast Guard muster as to what would be left for navigation purposes.

Dr. Maroney replied: After I do the sonar to check, the Coast Guard has told me they are going to come in and do the sonar too. This is low level sonar and it is not the kind that hurts whales.

Commissioner Pine commented: I am very impressed with the amount of thinking that has gone into this. It is very innovative and exciting.

Chair Wasserman stated: With that we will turn to the staff recommendation.

Mr. Batha presented the following: The staff recommends that the Commission approve Amendment 38 to BCDC permit No. 2001.008 authorizing the use of controlled explosives to demolish Pier E3 of the former East Span of the San Francisco/Oakland Bay Bridge.

The staff has carefully reviewed the analysis of the potential impacts of the project, has read the biological opinion from NOAA Marine Fisheries, the Incidental Take Permit issued by the California Department of Fish and Wildlife and the Incidental Harassment Authorization prepared by NOAA Fisheries for marine mammals and has concluded, as has those other resource agencies have, that the benefits of demolishing the pier quickly, in 6 seconds, outweigh the potential adverse impacts of the sound pressure waves and noise that will be generated by the blast.

In reviewing all these materials, it quickly becomes clear that the best way to minimize adverse impacts to the Bay's natural resources is to time the explosion to that time of year when the least number of animals would be present in the area most affected by the blast, to install a bubble curtain around the blast zone to minimize the effects of the sound that will be generated by at least 80 percent, and to station observers around the blast site to make sure that no marine mammal, no endangered diving bird and no schools of herring would be in the area where they could experience some effect from the blast.

All of those protective measures are required in this authorization. In addition, because Caltrans views this project as a demonstration project and may propose something similar for the demolition of the remaining 21 marine piers of the former East Span, the Commission's authorization requires extensive monitoring so that we learn as much as we can about the actual impacts experienced from the blast.

Of special concern is the Longfin Smelt, a California endangered species. A very small percentage of the populations of all fish species found in the Bay will likely be in the blast zone, estimated to be a maximum of 0.1% for the greatest representation of any one species. Any impact to an endangered species is of grave concern. For that reason, the Commission's authorization adopts the requirement of the Incidental Take Permit from the California Department of Fish and Wildlife and requires that Caltrans assure the purchase, management and monitoring of four acres of Longfin Smelt habitat prior to the implosion.

A few changes have been made to the staff recommendation mailed to you last Friday. Those changes are included in the errata sheet placed in your folders. The changes are highlighted in yellow. None of these changes are substantive. All the changes are mostly reconciling some numbers and trying to be more precise in stating that the impacts experienced by the different species will be different for fish and marine mammals.

I would be happy to answer any questions.

Chair Wasserman asked: Are there any questions for staff? Has the applicant reviewed the recommendations and are they acceptable to you?

Mr. Galvez replied: Chairman Wasserman, yes; I have been in communication with BCDC staff and we are in agreement.

Chair Wasserman had additional comment: I want to once again congratulate Caltrans on a presentation to us that is thorough but interesting. It should serve as an example to a number of other applicants who come before us.

As you have clearly stated, this is a new and untested technique. You had a whole range of questions that are fully appropriate. If we were unwilling to try new techniques in a variety of ways we would be a much poorer and backward civilization.

From everything that you have presented, it is by no means 100 percent certain, but certainly a reasonable assumption that this is going to be a much better method of dealing with this and a number of other obstructions and fills and abandoned facilities in waterways throughout this state and country.

Yes, we will keep our fingers crossed. At least for me, I certainly welcome this.

Commissioner McGrath commented: I have watched the demolition of this bridge with a lot of interest. I am fairly close to the issues involved here. Our protections here are much greater than just the bubble curtain that will be used. It is appropriate to experiment but it also must be done with the kinds of protections that are in the staff recommendation.

If it works and if they want to come back, we will have the monitoring information that will tell us. I will ask more difficult questions about the success of the mitigation bank because I want to make sure that we are actually contributing to a net increase in longfin smelt but I certainly think the experiment is well warranted.

Chair Wasserman added: Just to be clear, the recommendation does not make it optional about coming back. They need to come back to brief us on the results.

Commissioner Scharff commented: I really enjoyed the presentation and thought it was well done and one of the better ones we have had before us. I am also glad we are doing something out of the box but with the proper protections.

We have a third version of the slide that was different. It is Exhibit L. It is a different version and it has different species listed on it. It shows issues with the Pacific Sardine and there are a couple of other things that show up on here that do not show up on the others.

Why do we have a third version of this slide?

Mr. Galvez explained: Some of the species here are not listed species and we wanted to focus today on the issue of listed species. This was an earlier version that was left there. But again, we wanted to focus on the listed species.

Chair Wasserman announced: I would entertain a motion to approve the staff recommendation and the amendment and issuance of Amendment 38.

MOTION: Commissioner McGrath moved approval of the staff recommendation, seconded by Commissioner Nelson.

VOTE: The motion carried with roll call vote of 16-0-0 with Commissioners Addiego, Bates, Gilmore, Scharff, DeLaRosa, Gibbs, Gioia, McGrath, Nelson, Pine, Sartipi, Vasquez, Wagenknecht, Zwissler, Vice Chair Halsted and Chair Wasserman voting, "YES", no "NO", votes and no abstentions.

9. **Commission Consideration of Legislation.** Chair Wasserman announced: That brings us to Item 9 which is a consideration of pending legislation. Steve Goldbeck will make the staff presentation.

Chief Deputy Director Goldbeck presented the following: You have before you a staff report and recommendation on legislation dated September 11, 2015. The deadline has come and gone to pass legislation. The good news is that most of the legislation that was supported by the Commission has passed the Legislature.

AB 746 by Assemblymember Phil Ting, who is also an ex-officio member of the Commission, regarding the S.F. Bay Restoration Authority passed the Legislature and was signed by the Governor.

SB 379 Senator Jackson's bill that would require local government to address adaptation planning in their local planning has passed the Legislature and is on the Governor's desk.

AB 1323 Assemblymember Frasier's bill that would streamline the process to abate abandoned vessels in state waterways including the Bay has also passed the Legislature and is on the Governor's desk.

Unfortunately SB 718 Senator Mark Leno's bill regarding non-petroleum oil spills was held in committee.

The Commission directed staff to work with Senator Wieckowski and Assemblymember Gordon on their bills regarding climate adaptation SB 246 and AB 1482 which were somewhat duplicative. The bills have since been amended and now address different aspects of adaptation. The bills have both passed the Legislature and are on the Governor's desk.

SB 246 now addresses local, regional and state adaptation planning by establishing the Integrated Climate Adaptation and Resiliency Program to be administered by the Office of Planning and Research to coordinate efforts at the various levels and provide tools and support to accomplish that coordination. This would include a database of information on adaptation that folks could use in their efforts.

Staff believes that SB 246 recognizes the importance of integrated planning at the local, regional and state level and that this bill will foster that and therefore staff recommends that the Commission support SB 246.

AB 1482 now puts into statute updating the Safeguarding California Plan every three years that addresses adaptation planning for the state. It also provides that the Plan encourage collaborative regional planning and also promote the use of natural systems and natural infrastructure for adaptation.

The bill also expands the duties of the Strategic Growth Council to review the activities and funding programs of all state agencies in meeting the goals of the Safeguarding California Strategy. Therefore the staff recommends that the Commission support AB 1482 as well.

We would like the Commission to support these so that we can recommend that the Governor support them and sign the bills.

I would be happy to answer any questions.

Commissioner Scharff asked: Is there a written summary of any of these bills in our packet?

Mr. Goldbeck replied: Yes.

Chair Wasserman announced: I would entertain a motion to approve.

MOTION: Commissioner Pine moved approval of the staff recommendation, seconded by Commissioner Zwissler.

Mr. Goldbeck clarified: The staff recommendation is to support the two bills, SB 246 and AB 1482. The other bills you took a position to support a while ago.

Chair Wasserman added: I thought I heard you also mention that on the ones we previously voted to approve to convey to the Governor that we would urge them to sign them.

Mr. Goldbeck replied: That is actually implicit when you took the position of support before but if you wanted to change it you could.

Chair Wasserman responded: No, I am happy as long as it is understood that it is happening and that will be conveyed. We do not need to act on it.

VOTE: The motion carried with a roll call vote of 11-0-5 with Commissioners Bates, Gilmore, Scharff, Gioia, McGrath, Nelson, Pine, Vasquez, Zwissler, Vice Chair Halsted and Chair Wasserman voting, “YES”, no “NO”, votes and Commissioner Addiego, DeLaRosa, Gibbs, Sartipi, Galacatos abstaining.

10. **Briefing on the South San Francisco Bay Shoreline Study, Phase 1.** Chair Wasserman announced: That brings us to Item 10 which is a briefing on the South Bay Shoreline Study. Brenda Buxton of the Coastal Conservancy will provide the briefing.

Ms. Buxton presented the following: I am here with a team of people from the Santa Clara Valley Water District and the Corps of Engineers. I work for the Coastal Conservancy and we are one of the two non-federal sponsors on this study.

Back in 2003, the state of California, the federal government and some private foundations acquired 15,100 acres of salt evaporation ponds from Cargill so we could restore them to tidal wetlands and other habitats.

This acquisition launched the South Bay Salt Pond Restoration Project. The Conservancy is the lead planning agency for this project.

It is a chance to turn this area into wetlands as it was in the past and to address the serious threats to communities around the Bay from flooding and to provide opportunities to get out and enjoy the Bay.

The three properties have been divided up and Eden Landing is now with the California Department of Fish and Wildlife. Ravenswood and Alviso are owned and managed by the U.S. Fish and Wildlife Service.

The Coastal Conservancy joined forces with the Santa Clara Valley Water District to try to find ways to fund the very expensive infrastructure that is going to be needed to build this ambitious project.

A lot of the far South Bay has subsided and the levees are not in good shape. We need to address flood protection in a meaningful way in these salt ponds.

The Santa Clara Valley Water District, the Army Corps of Engineers and the Conservancy spent from 2005 to 2010 looking at the entire shoreline in Santa Clara County and we did a lot of baseline conditions analysis.

We decided that for implementation planning, we would focus in on the Alviso Ponds way down at the bottom of the Bay. Coyote Creek marks one end of this project area. Guadalupe River is the other edge.

The Water District is looking at the rest of the shoreline and we will be planning and continuing to provide protection in other parts of Santa Clara County.

When I refer to the Shoreline Study, I am talking about the wastewater treatment plant, the town of Alviso and about 3,000 acres of what are now managed ponds but we hope to restore them to tidal wetlands. Ponds A16 and A17 in the middle of this area were already restored or enhanced by the South Bay Salt Pond Project. These ponds are not a part of the Shoreline Study.

The risk of flooding in this area is acute. We first have to provide protection before we start dismantling the existing flood protection network.

The NED, National Economic Development, is the twelve and a half foot high levee that the Corps process has come up with as the best buy for the federal dollar. They will cost share on a 12.5 foot levee.

The Santa Clara Valley Water District wants to keep everyone out of the 100 year flood plain for the entire 50 year length of the project. For this reason, the District will provide additional funds to build the locally preferred plan which will be a 15.2 foot levee. They will tie in to existing river flood control projects on either side.

The existing levees are in terrible shape.

Where the levee line would be crossed by the railroad, the proposal is to put in a swing gate structure that is activated by rising water and would close in a flood. Where the levee would cross Artisian Slough, there would be a tide gate structure that would have flap gates that would be open the vast majority of the time, but in the event of flood waters or storm surge would shut and prevent the water from going into Artisian Slough, flooding the sewage treatment plant which handles about one million gallons a day and is one of the biggest pollution treatment plants on the Bay.

Environmental restoration is a big component of this project as well. It is also one of the more interesting aspects of the project.

After we build the flood control levee the next step would be to add ecotone. This is a term for creating a big dirt slope. The Conservancy will probably pay 100 percent of this feature. We feel that it is absolutely critical to the project. If we do not start incorporating big, wide, gently-sloping areas with vegetation and complexity into our projects we are going to be in trouble.

The Salt Marsh Harvest mouse has to have somewhere to go during a king tide. And with sea level rise and increasing storms there is going to be more and more turbulence and rising water in our wetlands systems. They need refuge and it has to be of the size and complexity to truly give them cover.

We are proposing a 30 to 1 slope with fill placed into the pond next to our levee. Not all of the slope is going to be upland. A lot of it will actually be underwater most of the time.

As sea level rise occurs, the wetlands are going to migrate upland. The bigger the slope the greater room you have for this upland wetlands migration.

After we have built our ecotone and our levee we will start breaching. We are going to do it in phases. The first phase would be Ponds A12 and A18. This is about 1,100 acres. We are doing it in phases through an adaptive management program just like we are doing with the Salt Ponds Project.

If things are not going how we expect, then we will stop and reassess. If things are going well and everything is working out, we will continue to phase in our restoration.

Eventually in 50 years at the end of the project the area will be a pickleweed and cord grass marsh.

There is also recreation in the project. As we are opening up these ponds to restoration, there will be very large breaches and that would break the existing trails. To help provide a long, continuous trail experience to folks, we propose to join the project to the Bay Trail.

We are going to cost share with the Corps the cost of putting a pedestrian bridge over the railroad tracks so you can get safe access from pond A13 over to pond A16 and then another bridge over Artisian Slough so you can get on to the City of San Jose's property. There will be better connections created by this trail

It is an expensive project. The cost of the ecotone component is about 35 million dollars and the Conservancy is paying all of that. The recreation cost is shared 50/50.

The Shoreline Study just completed a major milestone in that we passed the Civil Works Review Board last Friday. The one condition that they did ask of us is to go back to BCDC and discuss the federal Coastal Zone Management Act Consistency Determination. They did not want to put that off. They wanted that done.

I have a fly over of the project area which consisted of a helicopter and drone reconnaissance. (A video of the fly over was shown to the Commission.)

Commissioner Zwissler had a question: What happens at the other ends of the levee that you have built?

Ms. Buxton replied: The south end of the project ties into the Guadalupe River Flood Control Protection Project. At the other end it ties into the Coyote Creek Flood Protection Project. Those two projects have 16 feet tall levees and this would be 15.2.

Commissioner Nelson had a question: Could you just walk us through what this proposal means for New Chicago Marsh in terms of changes to hydrology and so forth?

Ms. Buxton replied: There was a lot of angst and thought that went into New Chicago Marsh. New Chicago Marsh is three to eight feet subsided. As a subsided marsh if you just busted open the levees you would have a pond. You would lose your entire existing Salt Marsh Harvest Mouse habitat and you would have something that would have to be pumped out continuously to keep the water circulating.

Because of these management challenges and the fact that it is a threatened and endangered species habitat we decided to keep New Chicago Marsh as is and just manage it under the existing regime. As such, it could be a source population for mice to colonize the evolving marshes.

Commissioner Nelson asked: So this project would not change the existing hydrology of Chicago Marsh?

Ms. Buxton answered: No. There would be minor amounts of fill around the edge. Basically the water comes in through a siphon from A16 and then is pumped out.

Commissioner Nelson inquired: Could you walk us through how this project is making changes on any of the creeks you are crossing? Are you installing tide gates or just tying into existing levees?

Ms. Buxton responded: The two major rivers in the area, the Guadalupe which goes into Alviso Slough and there is nothing that is going to be done to that crossing because it just ties into an existing levee. The only water body that we would be traversing is Artisian Slough in the middle. And that would be a tide gate structure with a flap gate and it would be new.

On the other side we tie into the Coyote Creek existing levee system.

Commissioner McGrath commented: It is necessary backstopping flood control in order to increase, at this stage, the amount of tidal restoration, correct?

Ms. Buxton replied: Right.

Commissioner McGrath continued: And you now have a Board of Engineers favorable report?

Ms. Buxton answered: We were approved, a unanimous vote, by the Corps of Engineers headquarters.

Commissioner McGrath delved into procedure: And so the next stage is to begin the consistency review process.

Regulatory Program Director Brad McCrea commented: This is a good segue to go through the process. These folks were just back in Washington, D.C. getting through the Civil Works Review Board. The next step is for Headquarters to get some assurance from this Commission that they have a project.

And they need that assurance to get that into the Chief's Report which is what Congress uses to give the project authorization.

The staff wrote a letter with caveats that said, this letter is not on behalf of the Commission. This is the staff's thoughts about the project but we think generally it is a good project. We said it needs more information.

The Headquarters back in Washington, D.C. did not buy it. They say they wanted to hear from the Commission. We want the Commission to weigh in on this. And they want this by December.

Next week, Tom Kendall may submit on behalf of the Army Corps of Engineers a consistency determination which will then put into play a process that by law has to be conducted within a certain amount of time, namely 75 days.

There is a process in federal regulations that allows for a phased consistency. We may do that. We may bring what we know to you for your concurrence or objection and come back later with another phase when more details are known.

Another process which you have only done once before is to have a resolution and then combine that with a letter and send that back to the folks in D.C. and see if that works. You did this once before and that was with the America's Cup.

Executive Director Goldzband weighed in: This happened because the plans were not set for the America's Cup. The federal government was requiring BCDC to say, we are happy to do it and BCDC could not quite say that because there was no plan for the Commissioners to actually approve.

Travis and the staff invented a resolution that said, we support this and we look forward to working to makes sure that it is done.

But it was not an approval of the project.

Mr. McCrea continued: So the letter of support from the staff did not work. There is no real vehicle for a letter from the Commission without some sort of action by the Commission. The obvious action would probably be a resolution that the staff would prepare for you.

Otherwise, we are looking at a phased consistency determination or just the old regular consistency determination which means you look at it one time.

I think timing wise it works better for the staff to figure out an easier more streamlined process but we are trying to figure that out.

Mr. Kendall commented: I think Brad got it. We like the letter we got from the staff. The original thinking was that we would defer all official consistency review until design. But the approach was not acceptable to the folks in Washington. It has put us into this hurry-up offense.

Ideas of a resolution are something that we have been kicking around. We certainly can go through the phase review. We have to be smart about what process makes most sense for the staff and the Commission.

Commissioner McGrath commented: In a previous lifetime, I administered the consistency review process at the California Coastal Commission and we did phased reviews quite frequently. It worked out well. This Commission and my Regional Water Quality Control Board have both approved aspects of the restoration project.

I think the phased process can work pretty well.

Chair Wasserman commented: The presentation was very good and the project is a very valuable one. I would support a flexible process that allows us to move forward as quickly as possible.

I would add the caveat that I devoutly hope the Army Corps of Engineers could figure out how to do that itself in this and many other projects because it is going to have to if we are going to achieve the kinds of things that we need to achieve to save our built environment in this area and other parts of the country. I encourage staff to work together to figure out how we can flexibly solve this and keep the project moving.

Commissioner Pine commented: It seems intuitive to me that if the staff had written the letter that it is most likely that this Commission would support a similar letter under our authority. Does that preclude doing other things? This has been a decade-long process. I think we should take whatever step is most expedient to move this along.

Again, if our own staff was comfortable in writing such a letter I would think that our Commission would support the same letter. And if we did that, I heard someone say that it does not mean that we would not go through some subsequent processes.

Chair Wasserman added: I support that and there is nothing for action before us. The three choices are, a resolution of support if staff believes that would suffice or a potential phased consistency determination which can be done in a timely fashion and has been done by our sister agency frequently or a full coastal consistency determination which might be difficult to do in the timeframe we are talking about.

We can leave it to the participants to come forth with the most effective process.

Executive Director Goldzband added: Having a letter from the Commission signed by Chair Wasserman that says exactly the same thing that the letter that the staff did does not satisfy the Corps.

Mr. Kendall replied: I had multiple sidebars with the key people in D.C. last week on that very point. I think what we would want to do is see a draft of that letter and send it to the guys in D.C. and ask them, is this going to work? They told me that they would work with us on that.

Commissioner Nelson commented: As staff works to identify what the right path forward might be, I just want to make sure that we are looking as far down the road as possible. This is a big, ambitious, complicated process and that means looking down the road at issues that we are going to address here that might represent important first steps for the Commission, might represent precedents that have implications elsewhere.

There are some issues here that are going to be important for us to step back and look at because this is such a big, ambitious project. It is going to raise a lot of issues that we have to think about not just in the context of this project but in context of what it means for all of those similar projects around the Bay.

Executive Director Goldzband had a question: Brenda mentioned that this is 1,100 acres at the start ending up at 2,900 acres total. So we are talking about two and a half times the size of Hamilton here in this project. That is a huge project in and of itself.

We have to make sure that we move stuff in and we pay attention to what we are doing so that we ensure that we do not foreclose options for the future but we also do not insist upon doing things which are going to not allow us to move to the future.

Commissioner Scharff commented: I was concerned about loss of access when you talked about getting rid of the loop road. I would have concerns if the public had less access further out in that loop.

Ms. Buxton replied: There is a net loss of trail miles. We looked at bridging the breaches but there are several reasons why we are not proposing that.

One is that we do not think that it would be permitted by the U.S. Fish and Wildlife Service and it was not proposed. We have a biological opinion from them based on the idea that you are going have untouched, undisturbed wetland habitat.

The breaches are enormous. These are really big wetlands systems and it would get very expensive to bridge them. We have concentrated on doing the connections.

Commissioner Scharff added: And you might need to provide more access.

Ms. Buxton responded: We did provide additional access and I forgot to mention the connection through to Pond 18 where there currently is no access. So this is all new access. We also connect to the existing Bay Trail on the Guadalupe River. We are also proposing to close a gap in a bike trail that goes along Highway 237.

There would be two different types of access in this area. There would be the access for the more bird-watcher, school-group types along the refuge path. And then there would be access for the Silicon Valley bike commuter along Highway 237.

Commissioner Scharff continued: Is there is a difference between us doing a resolution and doing a phased consistency? If we do the resolution, do we get to see some of these plans less, do we get less oversight?

Chair Wasserman commented: Ultimately we need to do a full consistency determination. The resolution would not preclude that.

Commissioner McGrath added: To that point, I agree that we need to be working to improve access. We need to have a process that involves the Bay Trail staff. That is the advantage of a phased consistency determination is that it acknowledges that there are a number of details that need to be worked out.

The Conservancy in tackling this over the last 10 years has dealt with incredibly complicated issues. They have employed state-of-the-art adaptive management. I am pretty sure they will rise to the occasion.

Ms. Buxton continued the conversation: We did have extensive conversations with the Bay Trail about the changes to this loop trail. And they said, if you can provide connections, that is a big plus.

Mr. McCrea added: I want to reiterate that our goal is to make sure that you have all the information that you need to make the decisions at the appropriate time. We have no intention of putting something in front of you and have you making decisions blindfolded.

Whatever the stepped process might work out to be, we want to make sure that you will have everything you need to make an informed decision.

Chair Wasserman announced: I would entertain a motion to adjourn but that we make it to adjourn in memory of Zeke Grader who was the longtime executive director of the Pacific Coast Federation of Fishermen's Association, a true environmental steward.

11. **Adjournment.** Upon motion by Commissioner Nelson, seconded by Commissioner McGrath, the Commission meeting was adjourned in memory of Zeke Grader at 3:58 p.m.