

SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION

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October 8, 2009

TO: All Commissioners and Alternates
FROM: Will Travis, Executive Director (415/352-3653 travis@bcdc.ca.gov)
Mamie Lai, Assistant Executive Director (415/352-3639 mlai@bcdc.ca.gov)
SUBJECT: Approved Minutes of September 3, 2009 Commission Meeting

1. **Call to Order.** The meeting was called to order by Chair Randolph at the Ferry Building, Second Floor in San Francisco, California at 1:00 p.m.

2. **Roll Call.** Present were Chair Sean Randolph, Vice Chair Halsted, Commissioners, Baird (represented by Alternate Vierra), Bates, Bourgart, Goldzband, Gordon, Jordan Hallinan, Hicks, Lai-Bitker, Lundstrom, Maxwell (represented by Alternate Addiego), McGrath, Moy, Reagan, Smith, Thayer (represented by Alternate Kato), Wagenknecht and Wieckowski.

Not Present were: Sonoma County (Brown), City and County of San Francisco (Chiu), Department of Finance (Finn), Speaker of the Assembly (Gibbs), Contra Costa County (Gioia), Marin County (McGlashan), Senate Rules Committee (Nelson), Santa Clara County (Shirakawa).

3. **Public Comment Period.** Chair Randolph asked for public comment. Mr. Steve Ritchie, State Coastal Conservancy, spoke on the Salt Ponds Restoration Project. He noted that, despite the fact there is very little state funding, they have found substantial funding to ensure that the Salt Ponds Project is still going strong.

The final permits were obtained last year and early this year, and, with the Record of Decision, they have moved forward with the initial construction. Additional projects will be going to construction in the next six months.

They have been able to replace state funds with federal funds.

He also mentioned he is leaving the Salt Ponds Project in a few weeks to take on a position with the San Francisco Public Utilities Commission. However, the money and designs are in place for the Salt Ponds Project.

4. **Approval of Minutes of July 26, 2009 Meeting.** Chair Randolph entertained a motion to adopt the Minutes of July 26, 2009.

MOTION: Commissioner Wagenknecht moved, seconded by Commissioner Halsted, to approve the July 26, 2009 Minutes. The motion carried unanimously.

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

a. **Next BCDC Meetings.** We are cancelling our next two regularly-scheduled



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Commission meetings. Our next meeting will be on October 15th at the Metro Center in Oakland. At that meeting we will take up the following matters:

(1) We will vote on the federal consistency determination from the U.S. Fish and Wildlife Service dealing with a marsh enhancement project in Sonoma County. We are holding a Public Hearing on this matter today.

(2) We will hold a public hearing on revisions to our San Francisco Waterfront Special Area Plan to accommodate a proposal to relocate the Exploratorium to Piers 15 and 17.

(3) We will hold a public hearing and vote on an application to make improvements to a San Francisco Municipal Railway bus storage facility along the shoreline of Islais Creek in San Francisco.

(4) We will hold a public hearing and vote on a permit for the upgrade of a shoreline trail in Mill Valley.

(5) We will consider a status report on the progress we are making in carrying out our strategic plan.

b. Ex Parte Communications: In case any Commissioners have inadvertently forgotten to provide our staff with a report on any written or oral ex-parte communications, I invite those who have engaged in any such communications to report on them at this point.

Commissioner Gordon mentioned a brief meeting he had with David Lewis regarding some general concepts related to the Cargill Project.

6. Report of the Executive Director. Executive Director Travis provided the following report:

a. **Budget.** As I reported to you by e-mail, the final budget bill that was passed by the Legislature and signed by the Governor provides full funding for BCDC for the entire 2009-10 fiscal year. Nevertheless, we're moving ahead on developing a report to the Governor and the Legislature on Bay governance and finance. The steering committee that is overseeing this project held two public meetings and we expect that the results of their deliberations will be delivered to the Commission in October so we can hold a public hearing on the report at our November 5th meeting.

b. **Personnel.** We have three new interns on our staff. John Del Arroz is working in our regulatory unit on a project that is documenting and digitizing the jurisdictional determinations we had made at specific locations around the Bay. John has a B.A. in Environmental Earth Sciences with a Minor in Energy and Resources from UC Berkeley. He will be with us through November.

Stephanie REXING, a third year law student at Golden Gate University, has a Master's Degree in Marine Biology from the College of Charleston. She has worked as a Marine Biologist Technician at NOAA, was a legal intern at the California Coastal Commission, and has sailed on research cruises on the George Bank and the Mid-Atlantic Ocean.

Sean Bothwell is a third year law student at Vermont Law School who has worked for the Center for Ocean Solutions in Monterey and has written research papers on wave energy, desalination and the impacts on climate change on the Great Barrier Reef.

Also, if you approve a contract later today, Courtney Scarborough will be our new

NOAA Coastal Management Fellow for the next two years. She is a recent graduate from the Bren School of Environmental Science and Management at UC Santa Barbara, where her studies

focused on coastal marine resources management. During her fellowship, Courtney will work on our program for adaptation to sea level rise, with a particular focus on outreach to local governments in order to provide them information and tools for their adaptation planning work.

Dan Robinson, who will present a briefing later today, is our current, now past, NOAA fellow. His fellowship ended on August 20, 2009.

c. **Climate Change Policy Outreach.** When we held our last hearing on the proposed changes to the Bay Plan to address climate change you asked that our staff redouble its efforts to ensure local governments would have every opportunity to provide us with feedback on the proposed changes. We've been doing that, and as part of that effort, we've scheduled three workshops to be held in Vallejo on September 15th, in Palo Alto on September 16th, and in San Francisco on September 17th. Notice of these workshops has been sent to all local governments in the Bay Area. If there is anyone in particular who should be invited to one of these workshops, please let Joe LaClair know.

We've also secured the services of NOAA's Coastal Services Center to host two workshops to provide participants, and particularly local government officials and staff, with assistance in planning for climate change impacts. The all-day workshops will be held on September 22nd in Oakland and on September 23rd in Sunnyvale. Please pass the announcement of the workshops along to anyone who might be interested.

d. **Dutch-California Alliance.** I hope you have taken advantage of the invitation to attend the conference we and our Dutch colleagues will be holding here in this room on Monday, September 21st. At that conference, the Dutch will present the results of their assessment of sea level rise vulnerabilities around the Bay, offer their ideas on how best to deal with the challenges, and explore a long-term partnership between California and The Netherlands.

e. **State of the Estuary.** From September 29th through October 1st the biennial State of the Estuary Conference will be held in Oakland. We've sent you the program for the conference, which provides an assessment of the ecological health of the San Francisco Bay-Delta Estuary, and showcases the latest information about the estuary's changing watersheds, impacts, programs, and emerging issues. I hope many of you can find the time to attend some or all of this important conference.

f. **Saving the Bay.** A project we have been working on for a number of years, and one which we helped underwrite, is finally completed. The documentary film Saving the Bay will premier on Thursday, October 8th at 8:00 p.m. on KQED-TV. The film, which is narrated by Robert Redford, chronicles the history of the Bay and describes the events that led to the establishment of BCDC. The four-hour documentary will be presented over two weeks, with the second episode airing a week later, on October 15^h.

g. **Acting Executive Director:** I'll be on vacation from September 7th through the 11th and, from October 6th through the 10th, I'll be participating in a symposium on adaptation planning at the University of Virginia. The symposium sponsors are covering my expenses. While I'm away, Caitlin Sweeney will be serving as acting executive director.

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7. **Commissioner Consideration of Administrative Matters.** Executive Director Travis noted that the administrative listing was sent to the Commissioners on August 20th and Bob Batha is available to respond to any questions Commissioners may have about matters on the listing. There were no questions.

8. **Public Hearing and Vote on Material Amendment No. 13 to BCDC Permit No. 20-73, California Department of Transportation Seismic Retrofit of the Dumbarton Bridge in the Cities of Fremont, East Palo Alto and Menlo Park.** Chair Randolph introduced Mr. Bob Batha, BCDC staff, who introduced the project.

Mr. Batha stated that the project would involve a relatively small amount of permanent fill, approximately 5,500 square feet, to strengthen existing bridge columns, install isolator bearings, expansion joints, and the like; and a larger amount, approximately 9.2 acres, of temporary pile supported fill, for construction trestles that will provide access to the equipment and workers doing the actual work.

The staff summary lists a number of issues raised by the project. The staff would like you to pay particular attention to whether the project provides maximum feasible public access consistent with the project, and whether the projects' adverse environmental impacts are adequately mitigated, and that includes both permanent and temporary project impacts.

An important part of the proposed public access is the construction of high tide flood barriers and a pump station needed to protect existing access areas from flooding. This is particularly interesting because the Commission is likely to see more public access proposals like this down the road.

The table on page 7 of the staff summary references numbers that are accurate, but somewhat misleading. What they reflect are the direct impacts of the pilings that will be driven into the mud, but don't reflect the 9.2 acres of decks that will be supported by the pilings during the construction process.

Mr. Batha introduced Brian Maroney, the Principle Toll Bridge Engineer for CalTrans, and Jeff Jensen, a former BCDC staff member and now the Office Chief of the Environmental Division at CalTrans.

Mr. Maroney asked for the Commission's strong support for this project. The project has the benefit of taking all the lessons learned from the past bridge seismic retrofit projects. It utilizes some of the best engineering, some of the best environmental stewardship, some of the best architectural work, some of the best cost-economy judgments - it is really the best of every aspect seen on a project. Thus, he is very excited about it.

Nothing would make me happier than for you to support this project and to literally challenge me and the rest of this team to not only do a good job but to hurry up and get out there quickly, because that will improve seismic safety while minimizing impacts on the Bay.

I want to brief you on the structure itself. The genesis of this project comes from the Governor's Board of Inquiry following the Loma Prieta earthquake and the California Seismic Advisory Board. Their direction recognizes these toll crossings as not common bridges in the state. They are recognized as something more valuable than the common bridge. So, the

common standard should not be applied here. The quality of every component of these projects should be elevated to that.

One example is, across the state of California and across the country, the standard for seismic retrofit is “no collapse;” that is, modify the structural system so in the event of a design-level earthquake; the bridge doesn’t fall down. The engineering community correlates no collapse with no loss of life.

At Dumbarton, we are trying to do a little bit more. We're trying to, after an event, not need to destroy the bridge, tear down and start all over again; but actually, put the bridge in a condition so that we don't have to tear it down, but can repair it.

Our goal, given us by the Seismic Advisory Board, consistent with the Governor's Board of Inquiry and the review of BCDC's Engineering Criteria Review Board, is that, the bridge will be strengthened to withstand a design level event -- which is defined by those motions that are expected to occur once every 1,000 years. With the seismic retrofit our estimate is that the remaining life of this bridge is about 100 years. Currently, AASHTO federal and state standards design life for a new bridge is 75 years. So, right off the bat, these are special bridges.

We believe we're going to be able to bring this structure and transportation system back on line somewhere between one and 12 months following a major earthquake, depending on the damage levels that actually develop and on what the priorities are around the Bay. There are not an unlimited number of contractors, helicopters, fire trucks to effect such repairs.

Also, there is an extra design level criteria that is applied to these important bridges that are not addressed at all with a common bridge. After a smaller, more likely event -- those motions that we expect to occur once every hundred years -- this bridge should not be disrupted and the transportation system should not be disrupted. You can count on the Dumbarton to be fine after such an event.

Everyone coming together on this project has been challenged to do it quickly and to get the bridge up to a standard that's reliable. That's important, because some of the bonds sold to New York banks are paid back through tolls. So the Dumbarton is a revenue generator, which reinforces why we want it to be operational in the future.

From the perspective of the bridge engineer, all four elements involved -- the cost, excellence in design, stewardship, and the speed -- all of those components have been defined.

The Dumbarton is the southernmost Bay Bridge crossing. We've accounted for the risk of all the nearby faults and incorporated the best technology with respect to seismic ground motions.

This is not just one bridge across the Bay. Structurally, we need to do different things across the length of this bridge because it is actually five different bridges lined up and there are three different bridge types and two different bridge structures on the ends.

There are steel piles underneath the east and west approach structure so they can take some damage, things will be permanently bent a little bit, a little bit misaligned --. But, steel is a tough material, it can actually deform and continue to carry truck and car traffic. The concrete piles in the middle of the Bay don't have these properties.

The bridge was designed in the late 70's and construction was complete in the early 80's. So, it's been 30 years since the design. In the 70's the California code said do not add additional piles for seismic loading. We now know, particularly after Loma Prieta, that that was wrong. It is no longer in the code. But that was a guiding direction to designers at that time. So we don't have the foundation underneath that bridge that we would like to have. That is one of the challenges to the seismic retrofit.

Along the length of the bridge are separations, where it can get hot and expand, and it can get cold and shrink (thermal expansion joints). Around the world, in earthquakes, this has been the cause of bridge collapse more than any other reason -- something moving in an earthquake, falling off its' seats or becoming separated, and falling off and dropping. We have a legitimate need to fix this potential problem.

Every high tide went, when the wind picks up, the access road can start to flood which basically cuts it off. It also limits access to a PG&E station. So we will be addressing that flooding issue.

We will be extending construction trestle along both ends of the bridge which will allow for access of equipment, materials, personnel, etc. (rather than doing it all by boat). There will also be work platforms adjacent to each pier.

On the very high center area of the bridge we will place soft, forgiving elements that can survive the displacement of this section of the bridge; the structure will survive. We will use Earthquake Protection Systems, as our contractor a supplier here on Mare Island, who have supplied reliable elements here and in other parts of the world.

When the ground moves, the superstructure stays where it is and the sub-structure moves around. These elements, known as isolators, allow for this movement.

Along the rest of the length of the bridge, we will strengthen the bent caps but retain the unique faceted elements, of the supporting pilings.

We will be putting on another layer of reinforced concrete over the top of the pile caps, and at the bottom, where the seismic demands are the greatest, we will be putting jackets in, so that when the concrete starts to crack and expand there will be a confining jacket with reinforcing steel in it that will protect the inner part of those column, with a newer, stronger, tougher outer layer. That new jacket will exactly follow the exact shapes and facets of those columns. This is architectural excellence.

Our environmental document, that we anticipate signing this week, has our Ready To List date -- the time where we have to have our contracts and permits in line -- in November. We are also planning on advertising in December. The construction complete date is in 2014.

Mr. Jeff Jensen pointed out that, in order to meet this aggressive retrofit schedule, they have been in close coordination with a number of agencies.

As part of this project Caltrans has already obtained biological opinions from the U.S. Fish and Wildlife Service and NOAA Fisheries to address the potential effects to endangered and threatened species. We are also working on our incidental harassment authorization with NOAA Fisheries to deal with incidental effects to marine mammals that might occur in the project area.

The project is located adjacent to the Don Edwards National Wildlife Refuge. In addition, we are adjacent to some of the former Cargill Salt Ponds. In this particular area of the Bay there are a variety of sensitive Bay-related resources that are either at the project site or within range of the project. This includes a number of special status species that are protected under both the California and federal Endangered Species Act, as well as the Magnuson-

Stevens Fishery Conservation and Management Act and the Marine Mammal Protection Act. In addition, this site has tidal wetlands, mud flats and salt ponds, all of which provide habitat for some of these special status species.

One of the key things we're trying to do is to minimize our construction footprint and the placement of both permanent and temporary fill in San Francisco Bay. We're having a very small amount of permanent fill that will be placed in the Bay. This is for the collars on the

footings. However, we will have approximately 9.2 acres of temporary fill for construction access trestles. The actual permanent displacement of intertidal areas by the pilings is limited to only about .2 acres.

The use of access trestles is an important minimization measure to avoid affecting Bay-related resources. The alternative would have been to dredge for barge access. To do dredging in this area would affect a significant area of intertidal mud flats; it might cause turbidity in the water column; and then we'd have to figure out where to dispose of the dredge material. So, going with the temporary access trestles is a good minimization measure.

Exclusionary fencing will be placed on the east side, along Marshland Road. It is intended to prevent the snowy plover from entering the construction site, particularly during nesting season.

Also on the west side will be a mouse barrier, to prevent the Salt Marsh Harvest Mouse from accessing the project site. We don't think the Salt Marsh Harvest Mouse is actually at the project location because of the limited amount of pickleweed habitat; it's not quite dense enough.

CalTrans will employ biological monitors that have been approved by U.S. Fish and Wildlife Service and NOAA Fisheries. These biological monitors will be conducting pre-construction surveys for the presence of endangered species and bird surveys during the nesting season.

In addition, biological monitors will be available to monitor for the presence of marine mammals during pile driving and the unlikely occurrence of fish kills while pile driving. The biological monitors will be continually coordinating with the site engineer and the contractor to ensure they meet all conditions of the biological opinions and any regulatory permits that are issued for the project.

We also provide environmental training for our contractor and all our staff to make sure they understand that we have sensitive resources at the project site, that we have certain exclusions on some of the areas that we can work in, and also on how they can actually identify protected species to help us prevent effects to those special status species.

One of the issues that comes up is pile driving. CalTrans is now recognized as one of the national leaders on the pile driving issue, particularly in assessing hydro-acoustic affects to fisheries. We've been working with NOAA Fisheries, Federal Highway Administration, and several Departments of Transportations on a national level to develop the best available science and the thresholds for assessing affects to fish while pile driving.

With that in mind, we've worked really hard to minimize the amount of pile driving in the Bay. No permanent piles are going to be placed in Bay as part of this project; only temporary piles will be driven in for the access trestles. Moreover, all the temporary and permanent piles will be vibrated into the Bay, or on land where possible. Vibratory methods are preferred over hammering because it results in less underwater sound pressure and fewer effects to listed species and marine mammals.

However, there will be a very limited number of piles that do need to be proofed, or

tested, for resistance. Those need to be hammered in to some degree. However, NOAA Fisheries, through a biological opinion, has determined that this limited proofing, which will occur generally at low tide, is going to have extremely low potential to adversely affect listed fisheries.

In addition, we will establish buffer distances during the nesting season. While we're pile driving, if we find nesting birds within certain distances of the pile driving activities, we'll monitor that activity and make sure the birds are not affected. In some instances we may need to modify our work program in order to work around those nesting birds. We will be consulting with Fish and Game, Fish and Wildlife, and the National Wildlife Refuge when that occurs.

The other important thing is that we're going to be conducting fish monitoring during the pile driving activity. This is largely to observe fish predation by gulls and birds, which indicates that there are fish mortalities occurring. We will collect and examine dead or injured fish where we can. We'll also collect hydro-acoustic data to determine both the peak and cumulative underwater sound pressure levels and make sure that we are remaining below approved threshold levels.

Finally, we're going to remove and relocate any fish that are trapped in coffer dams prior to doing any de-watering work.

The final thing about the pile driving is that CalTrans will also monitor for marine mammals. Whenever there is a marine mammal entering within 60 feet of the pile driving activity, we're going to cease that pile driving activity until the marine mammal has dispersed and moved out of the area. And then within 15 minutes we will restart the pile driving. This is sort of a standard approach we've developed with NOAA Fisheries through the incidental harassment authorization.

At the base of the Ravenswood Pier, once it is removed, we will excavate part of the embankment, pull it back, and create an approximately 0.15 acre mud flat and tidal restoration area. We'll restore that and monitor it over a period of time. This is intended to help offset some of the fill that's being placed in the Bay.

In terms of public access, we have worked closely with BCDC staff to identify a suite of public access improvements that will be appropriate for the project. We have a number of improvements at a total cost of about \$8 million, which will ensure that we are providing the maximum feasible public access consistent with the project.

On the west side, along the north part of the bridge approach and the takeoff, we will be installing a flood wall and a pump house. That's largely to prevent tidal inundation in areas that are public access or parking.

A belvedere with a stairway to the parking lot will provide people an opportunity to stop before they make the journey over the bridge, take a look out, rest, view the area --. A small lookout area will be adjacent to the wetland restoration area that will provide views of the South Bay. It will replace the viewing area that will be lost with the construction of the pump

plant.

We're going to refurbish the entire parking lot and restripe and repave it.

We're going to try to make the bike/pedestrian path entrance onto the path on the bridge a little wider and a little more inviting.

The belvedere will occur right at the takeoff. It will be located such that it will be located such that it will afford views of salt pond SF2 that is being restored.

On the east side there will also be improvements and enhancements to public access. Primarily, there is a lookout area adjacent to the Dumbarton Bridge and we are going to enhance that. We are also going to repave and restripe the parking lot and portions of the access road and the turnaround.

We have worked hard with BCDC staff to provide the environmental and public access benefits so that we can hopefully get into construction as quickly as possible.

Chair Randolph then opened the Hearing to Public Comment.

Ms. Laura Thompson, San Francisco Bay Project Manager, thanked CalTrans for hosting the opening of the new bicycle/pedestrian pathway on the Benicia-Martinez Bridge.

Bicycle-pedestrian access on our toll bridges is very important to the region and will continue to be more popular as we complete more and more of the bicycle and pedestrian network around the Bay.

This seismic retrofit project is an opportunity to improve bicycle and pedestrian access to and along the bridge span. I am particularly pleased to hear that CalTrans has been working not only with BCDC staff but with bicycle coalitions on both sides of the bridge to improve way-finding signs to and from the span so that bicyclists have some direction from primary transit stations.

Bay Trail is in the process of completing a regional sign plan to help identify existing portions of the Bay Trail, and would really appreciate the opportunity to put up a few Bay Trail signs along this alignment as well.

I am also pleased to see that the relocated public access lookout will be integrated with the public access and Ravenswood open space preserve and the U.S. Fish and Wildlife Service Restoration Project. We've been very involved with the South Bay Salt Ponds Restoration Project and are pleased to see that these two projects will be integrated. Thank you for the opportunity to speak.

Mr. Robert Raburn, Director of the East Bay Bicycle Coalition, stated that they have taken a keen interest in this project and appreciate BCDC's oversight through their engineering and design review boards that have been very accommodating to the Coalition's suggestions.

The Dumbarton Bridge was the first of the seven state toll bridges that touch down on the east bay to provide bicycle and pedestrian access. So, of course, it's very dear to our hearts. We are interested in improving that access in the long term as well as making certain that access during construction is not impeded.

In this regard I would like to request that any barriers needed for construction access be no greater for the bicyclist or pedestrian than for the motorist. For example, let's not look upon the bikeway as part of the staging area for the project. Let's not accept re-opening the bike path months after the project is done.

Let's treat this as we treat all transportation arteries and absolutely minimize any disruption to travel. And I would like to see that written in to the requirements of the permit.

One thing I think we can do to really enhance the existing access is to provide the

signage that Ms. Thompson mentioned. Between Union City BART and Menlo Park we have a myriad number of paths, local streets, and CalTrans-operated facilities that lead to the bridge.

However, there is no guidance provided to the public. Our office receives calls every year asking “what routes do I take?” So we feel that this signage proposal is a key element toward improving the public access to the bridge.

One minor point I want to raise. You’ve heard about the expansion joints from CalTrans. Currently those expansion joints are often puffed-up rubber balls sticking up in the bike path and we have requested that those be treated so there is no vertical exaggeration on the path.

Also, we would like to see that the noise from the car travel on the bridge deck is absolutely minimized. There are a number of procedures that can be taken, with the paving materials or the way the deck is tined, to reduce the sound levels. Currently the sound levels are around 70 decibels, which is high enough that when you get off the bridge and away from the freeway traffic there is great relief.

Again, I appreciate your oversight on this project and look forward to a fruitful project that benefits all the users.

Seeing no other public comment, Chair Randolph then welcomed a motion to close the public portion of the hearing and then asked for questions or comments from Commission members.

Commissioner McGrath asked about the temporary closure and relocation of some of the public access parking and the long-term loss of 10 parking spaces. He asked for staff’s perspective on that – is it a minor or significant impact? Mr. Batha responded that he has never seen more than five cars in the parking lot and his understanding from CalTrans is that these public access parking lots are not heavily used.

Mr. Batha continued, commenting that it is hoped that these parking lots will be used more with the restoration of former salt pond SF2. The wildlife refuge is also hoping that these parking lots will be an important staging area for the South Bay Wildlife Refuge.

So, both USFWS, Caltrans, and BCDC staff anticipate that a lot more people will use these parking lots but no one has any sense yet of how many public parking spaces are likely to be needed. Our best judgment is that the temporary loss of parking spaces will not be a significant impairment on public access during construction.

Commissioner Wieckowski asked about the height of the barrier, set at 56 inches. How did we arrive at that height? I understand that it is important for protection, but there is an aesthetic impact that it will have on anybody standing at the shore who is trying to look over this barrier. Mr. Batha responded that it actually starts at 36 inches and ranges up to 54 inches. As it moves to the Bay; i.e., the wall is at the same elevation with respect to tidal levels. Caltrans believes that this height is sufficient to preclude most tidal flooding.

Commissioner Wieckowski then asked about the signage. The goal was to have about 40 signs. Route 84 runs through Fremont and runs reasonably close to the Fremont BART station. He asked that this be looked at, as there may be some bicyclists using the Dumbarton bridge who want to get to the Fremont BART station.

Commissioner Halsted commented that she had the opportunity to represent MTC and

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BCDC at the opening of the Benicia-Martinez bike/pedestrian path and it is a remarkable addition. With that and this addition we really have another option, for how people can get around.

Mr. Maroney, CalTrans, remarked that they all worked together to come up with a whole new type of technique to reduce the sound of cars traveling on the bridge. When the bicycle community expressed frustration about the sound –the example cited was the El Cerrito overhead, where anyone exiting I-80 hits that at about 60 mph – and not only is there sound, there is also the car vibrating, because of something called longitudinal tining.

Caltrans scoured the literature. We found some work in Wisconsin where they tined it in different directions and we utilized that to find a solution. However, that is only effective with brand new paving which is very expensive and not planned as part of this project.

With respect to the expansion joints, there should not be a deformed shape like what was described. If there is, it needs better maintenance, it needs to be corrected. CalTrans commits to fixing those as soon as it can. That does happen from time to time, especially out in a salt environment.

Commissioner Lai-Bitker commented on the issue of cyclists having the same access during construction as motorists. Mr. Maroney responded that they do not plan on temporarily closing the bicycle/pedestrian path or traffic lanes unless they have to. However, there will be times on this job where such closures will be necessary. We also anticipate the need to totally shut down the bridge for short periods of time, we think that will happen twice while we trade out parts.

Commissioner Bates asked about the signage issue, and about the funding of this project. Mr. Maroney responded that the Bay Area Toll Authority (BATA) and MTC had taken incredible leadership on the seismic retrofit. They have stepped up and said that, even though Dumbarton is not part of the toll community by legislation yet, they have directed us to do the seismic retrofit.

Legislation is going through state government now – AB 1175. It looks like that will be supported completely. If so, it will bring Antioch and Dumbarton into the toll bridge program, which will allow the TVPOC, with the support of BATA, to fund this work. We anticipate that at the end of the year BATA will be able to fully support this project.

Mr. Jason Weinstein, BATA, stated that they are planning to come before the Commission in October with a plan for funding this effort. Capital and support costs are significant, of course.

Commissioner Bates noted that there is some controversy about the bill and it might not make it through this year. And if they are going to pay for the bridge seismic retrofit, they ought to pay for bicycle signage.

Mr. Maroney stated that when he went to BATA to meet about this, he left with the idea that he was being told and directed to hurry up and do this, and to do it well.

Chair Randolph asked about the footprint for the pump house; would it operate only during flood conditions? Also, please expand on your discussion of the PG&E facility you mentioned. Mr. Maroney responded that there is a PG&E facility at the western bridge approach that would provide power. In addition, the pump house could be powered by the PG&E facility.

Commissioner McGrath asked if the staff report before them is sufficient in providing the necessary oversight for the staging of the project? Mr. Batha responded that he thinks the staff recommendation does protect the public. Pages 9-10, items 6 and 7, directly address that point. It specifies how to ensure that bicyclists and pedestrians can cross the bridge when and if they have to close the bridge or the bike lane during construction.

Mr. Batha gave the staff recommendation that the Commission approve material amendment number 13, to BCDC Permit No. 20-73, authorizing the seismic retrofit of the Dumbarton Bridge. The project will result in a much safer Dumbarton Bridge.

To perform the seismic retrofit, CalTrans will place approximately 5,500 square feet of new permanent Bay fill to strengthen the existing bridge columns, and up to 9.2 acres of fill for temporary construction trestles and coffer dams needed to perform the work. The impacts of the permanent fill will be mitigated by constructing a 6,500 foot tidal wetland.

The project will also enhance existing public access on and adjacent to the bridge by enhancing two public access overlooks, constructing an overlook on top of a new seismic outrigger pile, constructing a wall and pump station to prevent tidal inundation of the western public access parking lots, and installing up to 50 way-finding signs directing bicyclists to the bicycle route between BART in Union City and Fremont stations, and the Menlo Park Caltrain station.

Caltrans will also improve the connection between the bicycle/pedestrian path where it transitions from the bridge to the bicycle path along the frontage road.

Chair Randolph asked the CalTrans representatives if they agreed with the staff recommendation. They stated they had read the staff recommendation and the errata sheet and they do agree with it.

MOTION: Commissioner Wieckowski moved, seconded by Commissioner Lundstrom, to approve the staff recommendation.

VOTE: The motion carried with a roll call vote of 17-0-0 with Commissioners Vierra, Bates, Bourgart, Goldzband, Gordon, Jordan Hallinan, Lai-Bitker, Lundstrom, Addiego, McGrath, Moy, Reagan, Kato, Wagenknecht, Wieckowski, Vice Chair Halsted and Chair Randolph voting "YES", no "NO" votes and no abstentions.

9. Public Hearing and Amendment No. One to Consistency Determination No. CN 11-93, U.S. Fish and Wildlife Service, for the Lower Tubbs Island/Tolay Creek Marsh Enhancement Project, Sonoma County. Chair Randolph introduced Max Delaney, who provided background on the project. He noted that the Commission would not be voting on this project until the next meeting.

Mr. Delaney, BCDC staff, stated that this item is to enhance a total of approximately 65 acres of tidal wetland habitat in two marshes – the Lower Tubbs Island Marsh and the Tolay Creek Marsh. Both are within the San Pablo Wildlife Refuge Area in the north Bay.

Increasing tidal circulation and drainage in these marshes would not only foster improved health in the marshes but would also reduce mosquito production and help provide a long-term solution to controlling mosquitoes that minimizes the need for chemical treatment in

the marshes.

The project raises a number of issues, the most important of which is whether the project is consistent with the Commission's laws and policies regarding public access.

In order to achieve the enhancement goals for the project, U.S. Fish and Wildlife Service is proposing to excavate two breaches through the Lower Tubbs Island levee to increase tidal flows to the marsh. Breaching the levee would effectively eliminate 585 linear feet of the Lower Tubbs Island Loop Trail, which runs across this levee, though the remaining levee trail segments would remain open to the public as two spur trails.

It should be noted that the Lower Tubbs Island Loop Trail, along with the Tolay Creek Trail just to the north of it, is the only existing public access within the refuge and is one of the only public access opportunities along the entire 16 mile stretch of Highway 37 in the north Bay.

The Bay Plan has policies that strongly support enhancement and restoration of wetlands, but the Bay Plan also has policies that recognize the importance of providing public access opportunities in natural areas.

Projects that propose to remove public access typically have been required to provide new public access that is of equal or greater value than the access that is being lost. Loop trails and continuous trails also tend to have greater value and appeal to the public than spur trails.

The staff has engaged in many discussions with the Service over the last few months to help the Service to develop a public access proposal that is consistent with the Commission's laws and policies.

At present the Service is proposing to allow public access on a 2,000 foot long trail segment along the Tubbs Island setback levee, which is to the east of the Tubbs Island loop trail, to offset the loss of the loop trail.

Since the Fish and Wildlife Service has not been able to propose a public access package that BCDC staff feels they can recommend approval of for this project, BCDC staff has only scheduled the public hearing for today.

While the U.S. Fish and Wildlife Service has expressed some concerns about the condition of the Lower Tubbs Island loop trail and its ability to maintain the levee trail over the long term, the trail may be usable for years to come, and BCDC staff is concerned that it may be premature to breach this loop trail at present.

Today the staff is looking to the Commission to focus on what mix of public access improvements would provide the maximum feasible public access consistent with this project.

Ms. Giselle Block, Biologist, U.S. Fish and Wildlife Service, gave a presentation on the project.

The overarching goal is to enhance habitat for wildlife, fisheries and plants. The objective to meet that goal is to improve tidal circulation. The methods they propose to use are to widen/deepen existing channels and create channels; to breach berms and levee; to lower interior berms and levee section; to raise elevation of marsh depressions (soil placement); and to improve the bayfront levee conditions (soil placement).

The environment of the project area is tidal marsh. Adjacent healthy tidal marsh supports several sensitive and estuary-dependent species, including the Salt Marsh Harvest Mouse and the California Clapper Rail.

Past human activities have created a number of issues:

- (1) Limited hydrological connectivity between adjacent tidal marsh areas;
- (2) Water impoundments, where water gets trapped behind berms and levees following high tides;

(3) This has led to mosquito production and the need for mosquito management, involving literally decades of management by the Marin/Sonoma Mosquito Abatement District, and annual application of pesticide.

These conditions combined have reduced habitat conditions for many species, including federally- and state-listed species, and has led to reduced water quality.

All of the soil that will be removed to do the tidal channel enhancements and creations will be used onsite and put into the tidal impoundment areas where, over time, where the vegetation has died off, they've sunk and subsided. So they are below the marsh plain elevation. We will be placing those soils directly in those areas to raise it up to marsh plain elevation and to enhance plant colonization.

Soils removed from lowering the levee and interior berm will be transported to improve levee conditions along the bayfront levee.

Why do this now? The levee leading to this project area is failing and it has a long history of levee failure and levee repair dating back to 1994; again in 1999; and currently the levee is in need of significant repair. You cannot access this site by vehicle currently; you cannot drive over it.

Most of these failures of the levee have occurred as the result of storm events, and we know that these sorts of storm events are only going to increase with time, and all the best available scientific information tells us that not only do we have to worry about sea level rise, we have to worry about these weather changes related to climate change.

The National Wildlife Refuge System is telling us we need to adapt; we need to re-evaluate our priorities and allocate our resources where we can get the best long-term benefit, not only for the public but for the wildlife resources.

Some of the improvements that we've proposed for this project include improving the outboard levee along San Pablo Bay. The material that would be taken from lowering the levee top and lowering the interior berms would be transported to the approximately 1,600 foot section of levee to improve its condition.

Second, we would also add a 2,000 foot trail along the Tubbs Island setback.

Third, we would require a public access easement from the Vallejo Sanitation District that extends from Highway 37 down to the loop. We would work to secure the rights for a public access along that trail.

We would also work with Vallejo Sanitation District and the Bay Trail to establish a public access trail along Sonoma Creek.

The National Wildlife Refuge System has a strong commitment to public access. Some of the ways that have come about include:

The Refuge Improvement Act, which prioritizes Public Uses (The Big Six) -- hunting, fishing, wildlife observation, wildlife photography, environmental education and environmental interpretation.

SFBJV-North Bay Managers Public Access Plan (in preparation phase).

The Comprehensive Conservation Plan, which is in preparation (a draft is expected by December), which includes increases in and improvement of public access in the north Bay as

lands are acquired.

In summary, the project will improve 65 acres of tidal marsh for the benefit of estuarine-dependent species; reduce mosquito production and management; remove 585-ft of 2.65-mi loop trail and convert loop trail to fork trail; improve approximately 1,600-ft of loop trail along

the bayfront; add a 2,000-ft trail at Tubbs Island setback; secure public access easement along Tolay Creek Trail; assist to secure public access along Sonoma Creek; and contribute funding to a feasibility study for the Tolay Creek-Sears Point Connection.

Chair Randolph then opened the hearing to public comment.

Ms. Laura Thompson, the Bay Trail Project Manager, thanked BCDC staff and the U.S. Fish and Wildlife Service for inviting them to participate in a site visit and numerous conversations about this restoration project. The Sonoma County Regional Parks Department has also been invited to these discussions but were unable to send a representative today. She will refer to their support and involvement throughout her comments.

The project before you is extremely challenging. It proposes to enhance a sizable portion of tidal habitat but also includes breaching a levee that forms a 2.75 mile loop trail encircling Lower Tubbs Island. Hiking the 5½ mile Tolay Creek Trail and Tubbs Island Loop is a unique experience. It is one of the few areas in the north Bay where the public has direct access to the open waters of San Pablo Bay. The loop trail rewards the hiker or bicyclists with a various experience while it maximizes views.

While this segment is remote, it is not a secret to the public. It has been featured in Bay Nature Magazine and in the San Francisco Chronicle as an exceptional remote hiking experience and bird-watching opportunity and it is part of the regional Bay Trail system.

Any proposal to eliminate existing shoreline public access or compromise the trail users experience is very difficult for us to support. It is especially difficult in Sonoma County, where less than seven miles of shoreline trail is open to the public.

While we prefer that the restoration project incorporate culverts or bridges in order to preserve the loop trail, we understand the financial and environmental arguments against installing this infrastructure in an area that is particularly vulnerable to the effects of climate change.

It is in this spirit of partnership that we have worked with the U.S. Fish and Wildlife Service to develop a public access concept that adds a new trail segment, and provides financial contribution and a renewed level of support to complete future trail connections along the Sonoma County shoreline.

Generally speaking, in this situation we would prefer to offset elimination of shoreline public access with new public access of a comparable nature. However, the land ownership patterns did not present a clear opportunity for new shoreline trail on U.S. Fish and Wildlife Service land.

The Bay Trail Project and Sonoma County Regional Parks prefer not to offset reduction of public access with improvements to existing public access, but instead to take steps to complete new trail connections. We think completion of an engineering study to move forward on a key gap in the vicinity of the restoration project is a valuable contribution that will help move towards completion of a new trail and a connected trail system.

The Sonoma County Regional Parks Department supports this strategy and has agreed to be the lead agency for an engineering analysis that addresses the gap between Sears Point

Restoration Area and the Tolay Creek Staging Area. They could accept funds and are committed to working with all partners.

The study could range in cost from \$15,000-\$100,000, depending on the level of detail. It would develop a list of feasible alternatives to span Tolay Creek. Many partners would be involved in developing this scope and the intent of this study.

So, I'd like to conclude by saying that we support the components of the U.S. Fish and Wildlife Services proposal to address this loss of public access, and these include repairing the outer levee along the loop, completion of a 2,000 foot levee trail that would provide access to a future spine connection along the Vallejo Sanitation levee; financial contribution towards an engineering analysis to develop public access alternatives; securing official public access along the Tolay Creek Trail; and a more proactive role for the U.S. Fish and Wildlife Service to work with us to find connections for the Bay Trail and incorporate those into their Comprehensive Conservation Plan.

Mr. Graham Chisholm, Executive Director, Audubon California, stated that Audubon, and their eight Bay Area chapters, have a long history of supporting conservation in the Bay. It also has a long history of connecting people with the Bay, through field trips, educational programs, and other restoration opportunities and work days that it hosts around the Bay.

We're delighted that in an era of relatively meager public dollars we've been able to raise about \$350,000 to help U.S. Fish and Wildlife Service undertake this project that will benefit endangered species and will also help address the public health issues around mosquitoes up in the San Pablo Bay area.

In many ways this project is about reshaping public access versus eliminating public access. And I think that's probably, as we work on a project-by-project basis in the north Bay, an important point that we need to think about developing as being proposed -- a more comprehensive vision for public access here. Otherwise we're going to find ourselves stuck on a project-by-project tug of war, which I don't think is useful to the range of values that we commonly support here.

One of the highlights about our involvement in this project has been the fact that we've been able to bring volunteers out to the site who have engaged in the restoration work, bird monitoring and plant monitoring - and to date we've recorded over 500 hours of volunteers who, quite frankly, very few would likely have been out on that site.

And, as we move forward and think about public access around the Bay, we need to also look to those opportunities, given the tremendous amount of restoration work that's being done around San Francisco Bay, to view restoration opportunities within the guise of public access and how we can really give the public that really hands-on connection with the Bay which, ultimately, I believe, strengthens our connection to the Bay.

Second, I would highlight and applaud BCDC for the work it has done to make very real one of the impacts of climate change-driven sea level rise around the Bay. The agency has, in a very real sense, helped communities around the Bay Area really understand what those impacts are going to be. In looking at public access and planning for public access around the Bay we really need to think about what are the impacts of sea level rising and where do we make the investment so that it is sustainable over the long term.

We are really looking at – this is the last permit for this project, and we have a narrow construction window and very limited budget. But I’m certainly hoping that between October and December we’ll be able to complete this project and I look forward to BCDC staff and Fish and Wildlife Service coming to resolution.

Ms. Barbara Salzman, Marin Audubon Society, noted that they are connected with national Audubon and also do a lot independently of them. They’ve done a number of restoration projects over the last 20 years.

I don’t know how you’d improve circulation in marshes if you didn’t excavate channels. And taking the material away would probably be much more environmentally damaging. It would certainly benefit the Bay and this particular marsh to put material in to raise up the elevation – whether it’s behind dikes now or open to the Bay. It’s a legitimate and commonly used procedure.

The safety of the fills and sea level rise -- frankly, this surprised me because it seems like this project is very much in keeping with the policies proposed by BCDC staff to protect people and the Bay. It would in fact get the people using this levee out of harm’s way and avoid the impacts of continuing to put fill in a location that history shows is eroding on a regular basis and would have to be a repeated activity.

With regard to public access, we’ve done that in this area for a number of years, although we haven’t done it in this area for the last three years.

It’s a very enjoyable area. You would have reduced impacts on the birds with the two spur trails. You would have just as much visibility of the Bay from those trails as well as view the wildlife, which would be improved. We hope you will support this project.

Seeing no other public comment, Chair Randolph motioned to close the public hearing portion of the hearing and opened it for Commissioner comments.

Commissioner Jordan-Hallinan asked how much notice has been given to the communities surrounding the area that this is happening? Ms. Smith, U.S. Fish and Wildlife Service, responded that they did put a public notice on site at one of the public kiosks. Also, an environmental assessment was done and at that time a 30 day notice to the public to review the project was given.

Commissioner Jordan-Hallinan added that press releases, a note to the TV news channels, etc. should be considered as well. Ms. Smith stated that a press release did occur in this instance.

Chair Randolph asked about the technical issues involved. Ms. Block responded that there are really two issues -- bridges and culverts. Culverts would be a possibility but there is a history of culverts in this area, as it was once a duck club. There were all sorts of activities that went on there, and all of those culverts are failing and we’re trying to get them out of there because we know we’re losing access to this area and it’s only going to get more precarious. So, from the Refuge’s perspective, we don’t like putting another man-made structure in that area.

From a more ecological perspective, I contacted NOAA Fisheries about the issue of placing a culvert in this area, and Gary Stern was adamantly against it. His comment was that

culverts invite predators on native fishes and if the intent of your project is to improve the conditions of wildlife and fisheries a culvert would be the opposite of that.

In terms of the bridge idea, we'd be putting in a structure that may become isolated in the very near future. BCDC staff came out and viewed the site and made their assessment of the levee --. But it truly is a failing levee. What we see on this levee would ordinarily be happening after a storm event but we're starting to see things in the summertime. So, knowing that changes are coming our way and coming quickly, the system needs to adapt. And this is why we're putting this project at the top of our list.

Commissioner Smith remarked that he used the Public Notice as an excuse to walk in the area and was struck by the deteriorated condition of the levee. It is going to fail; that's pretty clear.

I was attracted to the idea that some maintenance would be done on the outboard part of the levee. If nothing is done on that the loop trail will disappear naturally and a good part of what's left of it will be breached on the outboard side, and it wouldn't take much of a storm to do it.

I would suggest -- I was surprised to hear there is a disagreement about the degree of risk to the existing structure, and it would be nice if staff could get in harmony about the viability of the existing trail without further maintenance.

Commissioner Wagenknecht asked about the timeframes involved. Ms. Block responded that their plan is to begin as soon as they have approval. The plan was to stay within the fall/early winter period, before the end of December, to avoid impacts to the migrating salmon eggs and the federally listed species. So, essentially, as soon as we can get approval we'll go to construction.

Commissioner McGrath stated that he was deeply troubled by this project; that it sounded like chewing gum and baling wire. He suggested that a number of things needed to be rethought, both at the staff level and in the Fish and Wildlife Service.

The original consistency determination was in 1993. I remember the controversy associated with the project and the flooding and some of the hydraulic issues with it. I've done wetland restoration for a significant amount of my career and I know that U.S. Fish and Wildlife Service has, as part of their core mission, public access.

But the more I learn, the more disturbed I get. It kind of sounds like the levee hasn't been maintained since '93. Whether that's intentional or inadvertent --. But if the BCDC approves a project with public access on it where the levee hasn't been maintained and "oh, by the way, we don't have the necessary conveyance ability and maybe we're not as committed to preserving that public access as you would like --."

It may well be that things have changed and a new public access has to be put in place and protected. But what I hear today is that that plan is going to be in December.

I don't think it's a matter of necessarily eliminating a loop and saying that we have to replace the loop in kind --. I want to know what the plan is. To the degree that the long-term restoration objectives of a sensitive habitat requires public access to be separated in some way

from some areas, that's fine. I'd like to quote my friend Arthur Feinstein, who said "the public needs to see what's being preserved, protected and restored. They don't need to see it everywhere but they need to be able to see it."

I don't know if there's going to be an access way here that's going to be protected. I don't know if there's a commitment here in maintaining a levee. It doesn't necessarily need to be the same length but it has to be there and I have to know where the next one is.

And I haven't heard very good answers to those things. No question that there are circulation issues. But where is the public component going to be and how is it going to be permanent? To me, it's not there.

Ms. Block responded that a major renovation to the outboard levee was done in 1999. It was an amendment to an existing Consistency Determination. So there was a pretty significant amount of fill and quarry, riprap, brought in during 1999.

Mr. John Bradley, Acting Deputy for the refuge complex -- which involves the seven refuge areas in the Bay Area, including the Farallons -- stated that his first reaction is that the north Bay, as far as he can see, does lack a comprehensive plan that rivals what we've seen over the last five years of planning and about \$10 million for the south Bay.

The north Bay would definitely benefit from that kind and level of planning, with respect not only to the restoration of wildlife habitat but also on a myriad number of issues related to that, including public access.

The loss of the loop in the loop trail as a result of this project is a serious and significant loss, as far as public access goes. I don't think there's anyone on my staff, anyone speaking with Bay Trail, or with BCDC staff, that thinks that stub trails or fork trails are better than a nice loop.

We didn't have a place to replace that loop at this time on that property. We are trying to look at that bigger picture and seeing, perhaps, the loop that starts maybe on Highway 37 at the mouth of Sonoma Creek that goes on out to the Bay, across the Lower Tubbs levee setback trail that we have proposed to dedicate as part of this project, and then back down the Tolay Creek levee and possibly avoiding have to come all the way back to Highway 37 to continue west. But possibly some kind of connection over Tolay Creek that would be even, in my estimation, a better feature for pedestrians and cyclists that will be using the trail in the future.

The amount of public access that we have out there, at least over the last ten years, has been very small. Maybe 100 people a year get out there on this trail. Of that, most of them are fishermen that use the first 1,000 feet of the Tolay Creek trail and don't bother walking the 2½ miles out to the loop trail.

BCDC staff has really encouraged and pushed us for some on-the-ground mitigation or compensation for the loss of this loop and we still have another month to work things through and maybe more will come out of it.

But our options at this point, on this piece of land, are very limited. In working with staff we found out that actually there is no public access from Highway 37 out to the loop trail that is in any way memorialized legally. We have management access out there and maybe public access might come under the rubric of management in this sense. But mostly we use

management to get vehicles out there to try to keep the loop trail. I don't know how people are ever going to get out to the loop trail.

I guess I really do agree with your appraisal of that thing, that we could probably do a much better job in terms of informing the public ahead of time that we are going to lose 500 feet of a trail that is used, of a loop --.

Commissioner McGrath asked if the levee is superfluous to the restoration? Is it essential to the restoration? I'm not comfortable at the moment and want those things to be the subject of the negotiations, to make sure of what public access facilities are part of the consistency determination; and that there is a commitment, or an understanding, to maintain them; and is that feasible.

Executive Director Travis stated that staff thinks that what needs to be done is not simply to abandon something and say that we're going to do faith-based planning and in the future we'll figure out what to do.

We ought to have a strategy but we don't have that overall context. As you know, we always try to bring projects before the Commission that are resolved, tied up, except maybe for how many signs go to Fremont. In this case we've kind of got half a project before us. We're committed to continuing to work with the Bay Trail and Fish and Wildlife Service but there's a lot of loose ends here.

Taking a larger look at this, the whole of the Napa-Sonoma Marshes, which are controlled by Fish and Game -- we were pursuing public access there and the frustration was, they said "well, we're not going to provide it here because Fish and Wildlife is going to be providing it over at Tubbs Island." And now we're over at Tubbs Island and seeing well, maybe it ought to be someplace else.

Public access has always been the part of the mandates of the agencies that tend to get short shrift. As important as wetland restoration is, BCDC has another mandate, and that is to ensure that there is maximum feasible public access consistent with the project. And that has been quite difficult to achieve in the north Bay.

Commissioner Goldzband queried if, as a Commissioner, if he doesn't see a commitment that satisfies BCDC's commitment under McAteer-Petris, then a vote against it -- in six weeks, when this is brought up, his basic thought is if it's not there, then you vote against it. But the problem here is, does that really make a difference? Executive Director Travis responded that he hoped that, speaking optimistically, BCDC staff and Fish and Wildlife and the other interested parties can develop something to be brought before the Commission that can be approved.

Ms. Block reiterated portions of the proposal, which is to repair the outboard levee with soils; add the new access trail on the Refuge to the bayfront; acquire a legal public access easement along the Tully Creek trail; work with the Vallejo Sanitation District to secure this public access trail -- which is not part of the Bay Trail at this time; and lastly, to contribute funding and participate in a feasibility study that would allow Fish and Wildlife to bridge over from the Sears Point area.

It is hoped that bridging over would expand public access. To reiterate, we are actively engaged in our Comprehensive Conservation Plan, which guides the refuge management for the next 15 years.

That includes a public access component, and that is being developed now. The first draft is due in December. It includes a number of properties across the north Bay, where we will be increasing public access and improving existing public access. We are also involved in the San Francisco Bay joint venture effort to develop a north Bay access plan, which involves all the north Bay access plan managers. So those are currently underway.

Ms. Smith further clarified that their Comprehensive Conservation Plan (CCP) has been in the works for the last three years. Since she has been here (for six years) she has been concerned that there is only one public access site. There are a couple of others available on Highway 37, and at high risk to your life you can slow down quickly and make a 90 degree angle turn and get off.

We are proposing a lot of amenities, like deceleration/acceleration lanes at the Cullinan Ranch. We love this Tolay Creek site, we love walking out there. It has very low use because it's in such poor condition. We never know what shape that access road is going to be in because it's a farmer's road. We are allowed ingress/egress by Vallejo Sanitation District and we have maintained it to some extent. We're allowed to mow it, to add gravel when it gets too muddy. But mostly we work hand-in-hand with the farmer that farms that unit to make sure that we are able to get in and out of there and feasibly work.

There has been a lot of land acquisition since I've been here. We are working on acquiring Guadalcanal, and portions of Sears Point and Sonoma Bay lands. It is in our CCP to expand public access and definitely improve it where it exists.

This area is very difficult as far as maintenance. Every winter it gets hammered with storms. It was our intention to slowly move away from that as we build public access elsewhere.

The draft of the CCP will be online at the San Pablo Bay Refuge website or the planning site for the San Pablo Bay region.

Commissioner Lundstrom concurred about the importance of public access feasibility. When looking at public access that is outboard and subject to storm surge, and when we think of climate change we might think of sea level rise, but it also means more storm surges during events. The Commission needs to take another look at those outboard levees to see if they can be maintained.

Commissioner Smith stated that it would be very helpful to know the likelihood and commitment to maintenance of the levee - with this project or without this project. That will give the Commission a feel of how to address this location. He would be a little concerned that this particular project would be disqualified simply because of the lack of a final regional access plan for the north Bay.

Commissioner Bates reiterated that this public access is not something the Commission wants to just gloss over. It wants to see real public access.

I'm happy to hear that staff is going to work with Fish and Wildlife to come up with something. I'm interested in dollars and figuring out who is going to pay for this. Are the feds going to pick it up? A report costs \$15,000 to \$100,000, and then after we get the report what good does it do if you can't figure out a way to make it happen? So, if staff can look at some of those broader financial issues for when it comes back before the Commission.

Commissioner Jordan-Hallinan commented on the argument that she has heard many times – how can you spend all this money and have all this controversy for 100 people a year? The same argument was made about the Redwood Shores levee. But that controversy certainly made that a more popular area and the people talking about the amazing number of migrating birds that went out there introduced many hundreds more people to where they had never been before. So this is critical, don't downplay it just because it's now difficult to get to.

Chair Randolph stated that it would be useful to have brought before them at the next meeting a little more articulation of how this connects to the broader Bay Trail Plan. If Commissioners could get more perspective about how this does or does not fit in to those other parts that could be helpful.

10. Commissioner Consideration of NOAA Fellow Contract. Mr. Steve Goldbeck, BCDC staff, gave the staff recommendation that the Commission enter into a NOAA Fellow Contract for Courtney Scarborough. BCDC will pay a maximum of \$15,000 over a two-year period to pay BCDC's portion of the stipend for the Fellowship.

The Fellow will assist the Commission in planning for sea level rise and climate change, with particular focus on outreach to local governments.

Staff further recommends that the Commission authorize the Executive Director to enter into similar contracts for NOAA Fellows in the future, subject to the availability of funds.

MOTION: Commissioner Lai-Bitker moved, seconded by Commissioner McGrath, to approve the staff recommendations cited above. The motion carried unanimously by a hand vote of (15-0-0).

11. Consideration of Staff Report and Recommendation to Join Coastal States Organization (CSO) Amicus Brief. Chair Randolph introduced Mr. Tim Eichenberg, BCDC Chief Counsel, who gave the report and staff recommendation.

Mr. Eichenberg recommended that BCDC join in the amicus brief being prepared by CSO for a case that is currently before the Supreme Court that will probably be heard next year. CSO represents 35 coastal states, territories and commonwealths on legislative and policy issues related to coastal management issues.

CSO was asked to prepare the amicus brief by the state of Florida. The case is called *Stop The Beach Replenishment versus Florida Department of Environmental Protection*. It involves the implementation of the Florida Beach and Shoreline Preservation Act, which was enacted in 1965 to replenish beaches that were destroyed or harmed by hurricanes or storms

Restoring beach sand to protect homes, public beaches and beachfront communities

through beach replenishment, also called beach nourishment, is sometimes needed to address the impacts of sea level rise, climate change, erosion and increased storm intensity generated by climate change.

The city of Destin and Walton County asked the Florida Department of Environmental Protection to replenish with public funds a seven-mile stretch of beach that was damaged repeatedly by devastating storms and hurricanes between 1995 and 2004.

Before replenishing these beaches, the Act requires that the Department of Environmental Protection establish what's called an erosion control line that fixes the public and private boundary at the mean high tide line.

Despite fixing this erosion control line, the Act specifically preserves beachfront owners' littoral rights, or shoreline rights, to access, use, boating, bathing, fishing; and it also restores the mean high tide line if the Department of Environmental Protection (DEP) doesn't maintain the beach and the waterline recedes.

Six beachfront property owners sued DEP under the Fifth Amendment for taking their littoral property rights, alleging that their property no longer had direct contact to the mean high tide line because of the erosion control line, and that they were no longer able to gain land from accretion or reliction.

The Florida First District Court of Appeals ruled that a taking had occurred but the Florida Supreme Court reversed, holding that the state has a constitutional duty to protect Florida's beaches and that the Act protects vital economic and natural resources without depriving upland owners of their property rights.

The Florida Supreme Court found that the Act struck a reasonable balance between public and private rights along the coast by preserving littoral rights of access, views and use, prohibiting the state from erecting structures on the new beaches except to prevent erosion, and protecting beachfront property owners from future storm damage and erosion.

The U.S. Supreme Court accepted the case for review on June 15, 2009 to determine if the Florida Supreme Court had taken constitutionally protected common law littoral property rights from the beachfront owners without compensation. Requiring beachfront owners to be compensated for placing sand on critically eroded beaches discourages the protection of public beaches and makes beach nourishment or replenishment cost-prohibitive, is contrary to California common law, and undermines the ability of states to protect their citizens and coastlines from sea level rise, erosion, and the increasing intensity of storms.

The State of Florida asked the CSO to file an amicus brief, which the staff recommends that the Commission join. The California Attorney General's Office is also preparing a brief for itself and the National Association of Attorneys General, and twelve amici have joined on the petitioner's side -- on behalf of the beachfront property owners.

Listing BCDC as a signatory to the CSO's brief will show solidarity with other coastal management agencies, will help underscore the importance of this case to coastal states to effectively protect and restore beaches and coastal lands from the impacts of rising sea levels and climate change, and will not involve substantial staff work.

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Chair Randolph asked if anyone from the public would like to address the issue; seeing no response, he asked for the motion.

Commissioner McGrath commented that it only seems fair that if the public is going to protect not just the beaches but also the upland homeowners with public funds, then the public should get some recreational beach benefits out of this.

Commissioner Wieckowski added that the point about the adverse affect this may have on BCDC's jurisdiction if the Supreme Court goes the wrong way needs to be underscored, and he urged the other Commissioners to strongly support the Brief.

MOTION: Commissioner McGrath moved, seconded by Commissioner Wieckowski, to approve the recommendation. The motion carried with a hand vote.

12. Consideration of Report on Collaboration with Non-Governmental Organizations. Ms. Lindy Lowe, BCDC staff, gave the report, which was a result of a strategic plan objective which directed staff to develop and present a strategy to the Commission that would identify ways that the Commission could take advantage of non-governmental relationships to increase public awareness and involvement in the Commission's work on regional initiatives.

In developing a series of recommendations, several things stood out. First was the recognition of the power and importance that Non-Governmental Organizations (NGO) have in the Bay Area. For BCDC this is most easily demonstrated by the fact that this Commission was created by a group of individuals who formed an NGO in order to protect the public's interest in the Bay.

Second, the Commission already has quite strong relationships with a number of NGO's, including Save The Bay, SPUR, Bay Area Economic Council, San Francisco Estuary Institute, and others, and there has been a significant amount of participation from a large number of NGOs in BCDC steering committees, stakeholder groups, and advisory groups on projects ranging from the water trail, to airport planning, to the Potrero power plant, to updates to BCDC's Bay Plan.

Last, the issues that currently confront the Commission, including the state's budget crisis and the risks from the impacts of climate change, makes BCDC's partnerships with NGOs both more important and harder to implement at this time.

With these points in mind, following are a series of recommendations for the Commission's consideration that are aimed at strengthening and expanding the role of NGOs in the Commission's work:

(1) Perform focused outreach to organizations that are under-represented in the Commission's work. There are several types of NGOs that are not currently well-represented in the Commission's work, including groups with a focus on environmental justice and local community-based groups working within specific watersheds or on topics particular to their communities.

However, as the Commission begins to develop a strategy for assisting local governments in adapting to climate change and working with its regional partners to assess the vulnerabilities and identify the regionally significant resources along the shoreline, more

consistent participation will be important from NGOs focused on environmental justice, and from community-based NGOs.

(2) Improving communication through websites and the use of e-mail lists. A great example of this is the recent Rising Tides Design Competition, which was posted on a number of NGO websites, including a link to the Rising Tides websites. It was primarily in this way, as well as using e-mail lists from other organizations, that staff was able to raise awareness of and participation in this competition. BCDC should continue to explore the use of the Internet and NCIO websites to increase public involvement and awareness in the Commission's work.

(3) Continue to use NGO partners to either participate directly; or to identify participants for stakeholder groups, peer review, technical advisors, and/or in task forces developed to inform the Commission's work.

(4) Continue to present to NGO boards, staff and interested parties and to receive presentations from NGOs on issues important to the region.

(5) Continue to develop grants and partnerships with NGOs. BCDC's staff currently seeks and provides peer and technical review in developing grant proposals. NGO partnerships are often integral in the grant proposal process. BCDC has worked in partnership with NGOs in completing grant work that has required technical assistance that is not available on staff, such as geographic information, system mapping, and scientific analysis. This collaboration makes the grant proposal stronger and the outcomes more relevant. Continued and increased partnership in the pursuit of grant funding will be particularly important during this period in which fiscal and staff resources are low.

(6) BCDC Staff tables at events can provide an increased awareness of the Commission's work, answer questions about BCDC, and receive input on issues of importance to the community.

(7) A request for Commission assistance from staff in identifying NGOs to engage on particular projects and issues.

The staff recommends that the Commission endorse the above recommendations under the current fiscal environment, and to review the effort on an annual basis to determine the effectiveness of the effort and provide recommendations to improve the outreach and participation, as staff and fiscal resources permit.

Commissioner McGrath commented that it is always a good idea to improve collaboration and communication and he reminded the Commissioners that sometimes NGOs ask for things that are beyond the legislative mandate, and that needs to be kept in mind.

MOTION: Commissioner Lai-Bitker moved, seconded by Commissioner Goldzband, to endorse the recommendations. The motion carried unanimously.

13. **Briefing on Ecosystem-Based Approaches to Management.** The current NOAA Coastal Management Fellow, Dan Robinson, provided the briefing.

Mr. Robinson presented his overall conclusions from his work during the past two years and noted that his recommendations can be found in the extensive final report in Commissioner

packets.

The NOAA Coastal Management Fellowship at BCDC was designed to analyze the opportunities and challenges regarding ecosystem-based management (EBM) in the Bay Area and to recommend ways to the Commission to advance EBM.

Essentially, the beginning of the task was to assemble the puzzle; yet it became clear that the challenge was not to assemble the puzzle necessarily, but to identify the pieces we have and those that are needed.

From this effort, there are several ecosystem-based approaches which could be incorporated into BCDC's present collaborative management approach to ensure the provision of ecosystem services, which include provisioning (for example, seafood); cultural (for example, kite surfing); regulating (for example, water quality); and supporting (for example, eelgrass habitat).

There exists now a number of ecological and resultant socioeconomic concerns in the Bay Area. These include invasive species; fishery decline; contaminants; delta and fresh water inflow; and human uses and activities, such as shipping, ferries, oil and sewage spills. In addition, sea level rise, along with other climate change impacts, has the potential to exacerbate these concerns.

EBM has been declared the coastal and ocean management approach with the greatest chance of reversing these and other ecological concerns. The definition agreed upon by over 200 academics and scientists from around the world is as follows: *EBM is a multi-faceted, integrated approach that strives to maintain healthy, productive and resilient ecosystems that provide the goods and services required by resident and migrant user populations, including human.*

The goal of EBM is to maintain the flows of ecosystem services that result from ecosystem structure, functioning and processes. This is assured through the examination of interactions among the impacts of individual sectors as well as the cumulative impacts of individual and multiple sectors through time.

This approach is widely supported by the scientific and academic communities. A number of national reports, such as the PEW Oceans Commissions and the U.S. Commission on Ocean Policy, and Acts -- such as Oceans 21 of the Coastal Zone Management Act Reauthorization -- recommend or require the use of EBM.

A number of regional efforts are also underway using EBM as a cornerstone for management, such as the West Coast Governors Agreement and the EBM Network. Most recently, President Obama recommended the use of scientific and ecosystem-based approaches to be used for the management of the nation's coastal and ocean environments.

To make EBM more understandable and to help facilitate its implementation, it helps to think of EBM as an umbrella approach under which lay three parts.

First, the ecosystem based principles, which include inherent and underlying components such as long-term planning, collaborative partnerships, and place-based management. These principles in turn support larger ecosystem elements, like integrated watershed management and marine spatial planning, with comprehensive zoning.

Finally, a collection of ecosystem-based tools and technologies are available to support the success of these elements, such as GIS, ecosystem tradeoff analysis tools, and NOAA's legislative atlas.

Four recommendations to BCDC stem from this EBM umbrella. Through this organizational principle, rather than from a vague, conceptual definition often interpreted differently by different agencies, EBM can be seen more as a collection of ecosystem-based approaches which agencies and organizations can then use as they see fit for their particular needs.

The components that I believe would provide the most benefit to BCDC are active, continued participation in: integrated watershed management; cumulative impact assessment and management; ocean observing; and marine spatial planning.

First, improving the health and vitality of watersheds is increasingly seen as one of the best ways to ensure the health and vitality of their drainage areas, such as San Francisco Bay; and concurrently, to ensure adequate wetland transgression along the Bay's edge, sufficient amounts of clean sediment will need to flow into the Bay to keep pace with sea level rise.

Continuing to actively engage in watershed management programs will allow BCDC to move toward land to sea planning, or land-sea planning, which builds hydrological connections between land and sea, increases the synthesis between land uses and water uses, and reduces fragmentation of management between environments. Successful efforts to understand those linkages and processes between environments, however, requires current and accurate data, such as submerged lands habitat-type information, topographic and bathymetric data, and sediment flow models.

Second, increase active partnerships with ocean observing systems and programs. In addition to collecting meteorological data, such as ocean temperatures, currents, and salinity, ocean observing systems also have the potential to be used to gather biological data. These data, such as larval dispersion patterns and native invasive species migrations, could be used to support BCDC's science-based climate change policy decisions and thus ensure that the agency remains at the forefront of this issue.

The Central and Northern California Ocean Observing System, or CeNCOOS, is beginning an SF Bay initiative, which will increase the amount and usefulness of both types of data in the Bay to BCDC and other agencies, governments, and organizations for a variety of applicable science and policy purposes.

For BCDC, ocean observing data on changes to larval dispersal patterns or on fishing migrations could be used to help dredging decisions and inform the location and suitability of subtidal restoration projects.

Third, undertake a comprehensive and quantitative assessment of the cumulative

aspects of the Bay Area's human uses and activities. It is well-known that ecosystems are impacted by a variety of human uses and activities. These stressors combine to impact an ecosystem beyond a single impact.

There exists many calls to address cumulative impacts, but managing for them has been a challenge. Fortunately, a framework has been created for quantifying and mapping the impacts of multiple human activities on ecosystems and habitats around the world. In fact, a study was just completed that looked at several human activities, including fishing, marine debris, land use, and climate change, and their cumulative impacts on the environment within the California current, which lies just offshore, and a number of bays and estuaries on the west coast, including the San Francisco Bay.

The results of the California study indicated that coastal ecosystems near high human population densities were the most heavily impacted; that impacts from multiple threats are ubiquitous; and that climate change was the top threat to ecosystem health.

An assessment of the Bay Area's human activities would provide many benefits. These include informing land to sea planning by using land-based pollution intensity and distribution data for water quality management; mapping and quantifying climate change stressors; illustrating where conservation action may be most critical -- for example, the last remaining low impact areas where mitigation of key stressors is most needed; and where various activities are compatible for future planning.

Fourth, undertake further study of marine spatial planning (MSP) by initiating a research, data acquisition, and mapping effort for the entirety of San Francisco Bay. By definition, MSP is a public process of analyzing and allocating the spatial and temporal distribution of human activities in marine areas to achieve ecological, economic, and social objectives through a political process.

To test possible implementation of MSP here in the Bay Area, I created the San Pablo Bay Marine Spatial Planning Pilot Project, with a 12 person advisory stakeholder committee from San Francisco Bay Area agencies and experts. I chose San Pablo Bay for its variety of human uses, management entities, its mix of developed and un-developed shoreline; and its regional importance as a conduit between the Delta and Pacific Ocean.

A variety of data were collected, such as current and future human uses, management jurisdictions, ownership, and submerged and shoreline habitat. This resulted in the de facto zoning scenario -- in other words, in what already exists; and in three alternative zoning scenarios that illustrated a high use, a mixed use, and a low use of alternatives.

Human use guidelines were also created which illustrate the allowed, prohibited and permitted uses for each zone type. The report also explained ways to modify the zones based upon the use of a cumulative impact assessment; and by implementing measurable, ecological goals for each zone.

One final zoning scenario, mixed use, illustrates a more organized structure and, among other things, a new preservation zone for potential eelgrass beds and a number of explicit fishing zones.

A description of the human use zone provides the benefits and allowed and permitted human uses.

The benefits of MSP in general and to BCDC specifically are numerous. MSP can provide better synthesis between the uses on land and those happening in the Bay, reduce human use conflicts, bring organization to a heavily managed environment and potentially help plan for sea level rise.

The San Pablo Bay MSP Project succeeded in showcasing the spatial and human use conflicts which occur there and the benefits that various zoning scenarios may achieve in the Bay to incorporate cumulative impact management and ecosystem service protection. Expanding the pilot, by researching, acquiring, and mapping data Bay-wide would provide the information necessary for any future Bay spatial planning effort.

Taking the lead on the collection and management of the data would ensure BCDC is a lead agency in any Bay zoning effort which follows, thus ensuring that the aims and requirements of any such effort are coordinated with BCDC's mission and objectives.

In addition to the four recommendations based on specific EBM components, I also developed recommendations on governance. Governance in the Bay Area, as you know, is complicated, intricate, and complex. Changing biophysical environments and the advent of the latest ecosystem-based approaches requires an upgrade of our governance to fully ensure the provision of ecosystem services.

Two potential ways that governance may be modified in the Bay Area include: first, a collaborative effort to develop a standardized and overarching set of scientifically sound, ecosystem-based guidelines; and second, changes that move BCDC toward managing based on eco-regions, which link habitats from the subtidal, through the intertidal, to the upland regions of our jurisdiction and beyond.

Ensuring the provision of ecosystem services is critical to the health and well-being of San Francisco Bay, its natural resources, surrounding watersheds, the region's economy, and thus our quality of life. Guidelines based upon the best scientific data available and created from an interagency and inter-academic effort would create agreement, shared responsibilities, and ecosystem-based policy direction beyond each institution's mandates and specific responsibilities.

To get to a set of agreed-upon guidelines, a public-private partnership could be established, like the Puget Sound Partnership in Washington, or as an outgrowth of an existing entity such as the San Francisco Estuary Partnership.

Investigating a structural reorganization of the Bay Plan to include findings and policies on designated eco-regions, based upon watershed boundaries, bathymetry, salinity and habitat types could result in better linkages between subtidal and upland watershed habitats, and between human uses and activities on land and those in the water.

By realigning the divisions in the Bay Plan -- which are largely based upon individual human uses and activities, such as transportation -- to these eco-regions, human impacts would also be better managed across sectors and between habitats.

Finally, Special Area Plans, which are place-based approaches to management-specific areas, could be used to manage a particular environment more comprehensively.

Last but not least, as an overarching recommendation, the use of the latest EBM tools would allow BCDC to incorporate connectivity information into the decision-making process and aid in evaluating management alternatives as a means to satisfy the need to maintain a strong foundation in science to support the agency's policies and findings.

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Tools which are available include sea level rise visualization tools, governance and jurisdictional tools, marine protected area optimization tools, and ecosystem tradeoff analysis. These tools can aid the implementation and success of the previous recommendations as well as assist other staff projects. A technical staff member available to teach these tools to staff and facilitate their usage across the agency's departments should be a priority.

Today the San Francisco Bay ecosystem struggles under a variety of human uses and ecological pressures. As the climate invariably changes, so do the threats and dangers that challenge its health. BCDC must utilize emerging elements, underlying principles, and fresh, innovative tools and technologies to apply to damaged ecosystems, adapting their approach to respond to a vital realization – that solutions to current problems must be place-based, partnership-driven, comprehensive, and flexible to changing conditions. By using ecosystem-based approaches to management and incorporating a few governance changes, BCDC can continue to transition to an approach that can provide real-world solutions to these challenging issues.

Chair Randolph asked if anyone from the public would like to comment on the presentation.

Ms. Barbara Salzman remarked that this approach is interesting and offers some exciting potential and should be pursued. She recommended that there needs to be a component of the planning and zoning that recognizes and provides current, up-to-date information on the use of the Bay by wildlife, other than just fish. Fish are mentioned, birds are mentioned a few times, but not really included in the recommendations.

There are efforts by various agencies that can provide some up-to-date information but you might want to include, if you can find funding somewhere, further studies and surveys of where the diving ducks use the Bay. It may move from year to year depending on circumstances and it is important to include that information and to keep it current.

Commissioner McGrath remarked that the presentation was exciting but daunting, especially given the only grounds for denial of a permit on the shoreline band is insufficient public access. In thinking about this approach it would be good to set priorities, and the subtidal goals effort would be a good start, both to illustrate that this approach can be used and, equally important, in identifying areas of habitat that depend on upland linkage.

I can then take that information and those results back and try to encourage integrated watershed management. It seems that those two ought to be the highest priorities, in that order, because BCDC does have broad authority in the Bay and looking beneath its surface will enable the Commission to begin doing that integration. It is a very impressive and comprehensive approach.

14. Consideration of Strategic Plan Status Report. Executive Director Travis remarked that staff went back and looked at the objectives that had been deleted from the strategic plan for a variety of reasons and concluded that none of them should be added back in, either because the Commission doesn't have the resources or for other reasons.

In addition, there are a couple of plan objectives that need changes to the deadline and

some that we think should be dropped. We can't take action on this today, as we have lost a quorum; so, unless there is general direction to the contrary, we will make these changes and move forward.

15. **New Business.** There was no new business

16. **Old Business.** There was no old business

17. **Adjournment.** Upon motion by Vice Chair Halsted, seconded by Commissioner Moy, the meeting adjourned at 4:10 p.m.

Respectfully submitted,

WILL TRAVIS
Executive Director

Approved, with no corrections, at the
San Francisco Bay Conservation and
Development Commission Meeting
of October 15, 2009

ANNE HALSTED, Vice Chair