

San Francisco Bay Conservation and Development Commission

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March 29, 2024

TO: All Commissioners and Alternates

FROM: Lawrence J. Goldzband, Executive Director (415/352-3653; larry.goldzband@bcdc.ca.gov)
Reylina Ruiz, Director, Administrative & Technology Services (415/352-3638;
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SUBJECT: Draft Minutes of February 15, 2024, Hybrid Commission Meeting

1. **Call to Order.** The hybrid meeting was called to order by Chair Wasserman at 1:04 p.m. The meeting was held with a principal physical location of 375 Beale Street, San Francisco, California, and online via Zoom and teleconference.

Chair Wasserman stated: Good afternoon, all, and welcome to our hybrid BCDC Commission meeting. I am Zack Wasserman, and I am the Chair of BCDC.

Chair Wasserman asked Ms. Ruiz to proceed with Agenda Item 2, Roll Call.

2. **Roll Call.** Present were: Chair Wasserman, Vice Chair Eisen, Commissioners Ahn, Burt, Eckerle, Eklund, El-Tawansy (represented by Alternate Ambuehl), Gioia, Gorin, Gunther, Lee (represented by Alternate Kishimoto), Lucchesi (represented by Alternate Pemberton), Mashburn (represented by Alternate Vasquez-joined after Roll Call), Peskin, Ramos, Ranchod (represented by Alternate Nelson), Randolph, Showalter, Tam (represented by Alternate Gilmore) and Zepeda. Assembly Representative Ting (represented by Alternate John-Baptiste) was also present.

Chair Wasserman announced that a quorum was present.

Not present were Commissioners: Association of Bay Area Governments (Addiego), USACE (Beach), Department of Finance (Benson), U.S. Environmental Protection Agency (Blake), Governor (Hasz), Marin County (Moulton-Peters), San Mateo County (Pine)

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

No members of the public addressed the Commission.

Chair Wasserman moved to Approval of the Minutes.

4. **Approval of Minutes for the February 1, 2024, Meeting.** Chair Wasserman asked for a motion and a second to adopt the minutes of February 1, 2024.

MOTION: Commissioner Gilmore moved approval of the Minutes, seconded by Commissioner Randolph.

The motion carried by voice vote with no abstentions.

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

Form 700 Reminder: Before our Executive Director begins his annual campaign of hectoring, harassing, and otherwise badgering us, those are his words, not mine, I want to take a minute to remind all Commissioners and Alternates that our financial disclosure forms, the infamous Form 700, is due on April 2. Please let Larry and Reggie know if you have not received the notice from the Fair Political Practices Commission or you need some other form of assistance in completing the requirements.

Sediment and Beneficial Reuse Commissioner Working Group Meeting: I would like to recognize Pat Showalter to give us a brief summary of the Sediment Beneficial Reuse Committee Discussion.

Commissioner Showalter reported the following: On Tuesday we had a Sediment Management Stakeholder Workshop. It was actually day two. We had the first one on January 13. I personally was astounded at the turnout. We had 35 or so people the first time and we had 50 this time, which tells you that this is a subject that gets people interested.

This is part of BCDC's Wetland Adaptation Program, which is a joint regulatory planning and staff effort with BCDC and its partners US EPA, the Coastal Conservancy, the Regional Board, SFEI and San Francisco Joint Bay Venture. It was to develop an implementation roadmap of actions to increase beneficial reuse of soil and sediment in the Bay Area.

In the first workshop we did a lot of brainstorming about what were the policy issues and our staff, and the facilitators had done an amazing effort of sifting through over 17 pages of single-line comments to put it together into eight interest areas.

At the event there were 50 attendees from a variety of stakeholders' groups that are actively involved in and impacted by sediment management. This workshop focused on setting the priorities for actions and for developing a governance model to implement the roadmap.

We also had a panel discussion of funding challenges and resources with our partners at the Army Corps, the Conservancy, San Francisco Bay Joint Venture, and EPA. The project team is really grateful to the participants for their invaluable input throughout both days of the workshop.

I wanted to also add that our current work plan, which may get revised, is to initiate the Bay Plan Amendment process sometime this summer; and to do the preliminary staff recommendation and public hearing in the spring of 2025, which is when the draft policies will be ready for Commissioners to review.

As a heads up, we plan to do a briefing for the Commission about the workshop and the findings at the Commission meeting on March 21. I would be delighted to take any questions. Also, I just want to thank again the staff, Brenda, and Maya and Erik for the excellent job that they did.

Chair Wasserman acknowledged: Thank you, Pat. Any questions from Commissioners?

Commissioner Eklund spoke: Thank you very much, Pat, for the summary of that. In the future could the notices of the meeting or the information be posted up on the BCDC website?

Executive Director Goldzband replied: We will make sure.

Commissioner Eklund acknowledged and asked: I appreciate it. When is the next meeting again?

Commissioner Showalter answered: March 21 we are going to have a briefing at the Commission meeting about it.

Commissioner Eklund asked: When is the next meeting of the Sediment Committee?

Commissioner Showalter answered: Maya, do you know that? I do not know it off the top of my head.

Executive Director Goldzband interjected: I do not know but we will find out and get it to everybody.

Commissioner Eklund continued: Are you going to be producing minutes or a summary of the presentations and discussions?

Commissioner Showalter replied: Absolutely. If you look on the website under Meetings, under Sediment, you will see the agenda and information from these meetings.

Commissioner Eklund asked: What about a summary of the meetings? Are they going to be posted as well?

Commissioner Showalter answered: That is my understanding is there are also summaries. But since you are asking this question, one of the things that has been interesting about being on this working group is the first year was sort of devoted to a Sediment 101. We had a series of programs that taught us about different sediment issues around the Bay.

Now we are working on workshops to tackle the policy changes. So there really is a plethora of information under that Sediment heading under Meetings, if you would like to look at it, about these issues.

Commissioner Eklund replied: No, I am very familiar with it because of my experience with the Environmental Protection Agency so I will look forward to attending the next meeting. Thank you.

Chair Wasserman asked: Before I recognize Commissioner Gunther, Jessica, do you have a comment?

Planning Director Fain stated: I just wanted to respond to Commissioner Eklund's question about when the next working group meeting will be. Our Sediment Working Group will be meeting on March 15. All of those are publicly noticed meetings, everyone is welcome to attend.

At that meeting we will be debriefing from the two workshops with the Commissioners, reporting out what we heard, some of the themes.

And then the team is going to be developing a roadmap for the region for sediment and beneficial reuse. That is really the outcome of this phase and that is something we will be discussing before the full Commission as well.

Commissioner Eklund acknowledged: I appreciate that. I think in the future we should also notice, put up on the website where the workshops are or how people can participate.

Chair Wasserman stated: I believe they are always posted, Pat, but we will double check, thank you.

Commissioner Eklund noted: It was not posted. So, anyway, thank you.

Regional MOU Update: Chair Wasserman stated: I do not have very many remarks this afternoon. We continue to participate in the effort to develop a regional MOU on cooperation both of funding and implementation of measures to adapt to sea level rise.

The funding piece is particularly important as we try to rationalize that process and make it more efficient, and even more importantly, more effective. There will be a meeting in March of the agencies involved and hopefully by late spring we can have an MOU to present to the various agencies.

Next Meeting: We will not need to hold a meeting on March 7. Our next meeting will be on March 21 under the Bagley-Keene attendance rules. At that meeting we expect we may take up the following matters:

1. A permit application for PG&E's operations and maintenance work Bay Area-wide;
2. A permit application for the Tiscornia Marsh Restoration Project in San Rafael;
3. A briefing from NASA on the climate change science that underpins the draft State of California Rising Sea Level Guidance that we heard about at our last meeting; and,

Ex-Parte Communications: That brings us to ex-parte communications if any Commissioner has had a communication which has not previously reported in writing concerning a matter of an adjudicatory nature that will come before the Commission. Now is the time you may do that. You need to make it in writing under any circumstances.

I see none.

That brings us to the report of the Executive Director.

6. Report of the Executive Director. Executive Director Goldzband reported: Thank you, Chair Wasserman.

Although you may be tired of hearing about Taylor Swift, I am intrigued that the final cut of her upcoming album will be titled "Clara Bow." Clara Bow was one of the biggest silent movie stars of the 1920s, and one of the few who transitioned successfully into talkies. Her success helped define that decade as the "Roaring 20s," she was a pretty, party girl.

But, like Taylor Swift, there was more to Clara Bow than good looks and talent. She understood herself better than anybody else and she recognized what made her so appealing as an artist.

And on this day in 1927, February 15, Clara Bow became the "It Girl." The sexy, vivacious, and talented star dominated the movie that was simply named "It," which told of a Cinderella-like story of a poor shopgirl who makes it big. As the "It Girl" said of her later success, "I'm a curiosity in Hollywood. I'm a big freak because I'm myself!"

And I think we can all agree that Taylor Swift continues to define herself, she is not letting anybody else do that, just like Clara Bow did. It's just too bad that she roots for the wrong team.

First, I want you to meet Sierra Peterson, who started on Monday as BCDC's new Executive Liaison. Everybody see Sierra waving to you here? Okay. Starting at your next meeting, Sierra will be sitting where Reylina is today. Reylina, go ahead and wave and say goodbye. You already have received at least one email from Sierra introducing herself. Please feel free to communicate with her about any Commission logistical or procedural issues, or with me, and we will make sure that your questions will be answered.

With regard to staffing, I want to let you know that BCDC's small permitting staff has become even smaller. Shruti Singha has left us for Washington, DC and we have lost Dominick McCormick to the federal government. Simply put, our Shoreline Development team led by Katharine Pan will be hard pressed or perhaps unable to keep up with permit applications, absent our robbing Peter to pay Paul internally, and we need to replace Dominick so that we do not lose sight of our work to repair and update our regulatory program.

While we have posted our vacant positions, as I told you two weeks ago, it is clear that the combination of relatively low state salaries and the pressure-filled jobs do not attract many qualified candidates who fit BCDC's needs. I will keep you posted regarding how we will make ourselves whole again. Meanwhile, please let me know if you need another copy of our vacant positions list to distribute to your networks.

As Commissioner Showalter was kind enough to note, BCDC's second act of our two-part Beneficial Reuse of Sediment public workshop appears to have been a success. Our staff will give you a full wrap-up during the next meeting and I know that Jessica Fain will want to talk to some extent about it during our strategic planning update. I do want to say, before Jessica does, that developing and holding the workshop was a true team effort by our regulatory, planning, and admin teams and it was great to see, and we can't say that enough.

I also want to thank our Commissioners and Alternates for their comments on the One Bay Vision presentation Jackie Mandoske presented two weeks ago. Staff are just now finishing what we shall call our "Working" vision, which includes many of your suggestions.

We will send a clean copy for you to read, and we will post it through our regular Bay Adapt and Regional Shoreline Adaptation Plan process.

I am also pleased to let you know that as part of the Natural Resources Agency's Black History Month observation, our Environmental Justice Program Manager Phoenix Armenta will be speaking next week on a statewide panel on career pathways for African Americans in state service.

Secretary Crowfoot has made working with CalHR and other state organizations to attract a more diverse and professionally diverse workforce a major CNRA goal, and we are honored that Phoenix has been asked to be part of the workshop.

I should also remind you that one of BCDC's newest staff members, Rosie Velazquez, has come to us from the California Conservation Corps for a short stint to bolster our communications and EJ program, and that reflects Secretary Crowfoot's advocacy.

Finally, I want to thank Supervisors Vasquez, Pine, Gorin, Gioia, Moulton-Peters, and Tam for responding so quickly to our request for each of our county supervisor commissioners to arrange for a short briefing on the development of the Regional Shoreline Adaptation Plan, and the guidelines to be promulgated later this year, with the mayors in each of the counties in BCDC's jurisdiction.

I am hoping I shall hear from the remainder of the county supervisors within a week or so before I begin, to quote Chair Wasserman, to hector, harass, and badger those who have not responded.

So, all this leads me to say, Chair Wasserman, that I am very happy that the universe is back in order because pitchers and catchers are reporting to spring training camps throughout Arizona and Florida this week. I am happy to answer any questions.

Chair Wasserman asked: Are there any questions for the Executive Director?

No questions or comments were voiced.

7. Consideration of Administrative Matters. Chair Wasserman stated Regulatory Director Ross was available to answer questions regarding administrative matters.

No questions or comments were voiced.

8. Commission Strategic Plan Progress Report. Chair Wasserman stated: That brings us to Item 8, which is a briefing on the progress associated with the Commission's 2023-2025 Strategic Plan. Executive Director Goldzband will introduce the briefing.

Executive Director Goldzband addressed attendees: As we promised, we are trying to bring you three times each year a progress report on the Strategic Plan. We could not do it in December as we had planned because of the press of business on the Commission's agenda and then we did not have a meeting in January, so as a result we are doing it in February.

You have seen this before. This is our September 2023-January 2024 update.

You will recognize our vision and our goals and our anticipated outcomes, those have not changed.

I do want to remind you of the core values that you all have put into the Strategic Plan. That is that BCDC is equitable and inclusive. That we are science-based and data-driven. That we certainly attempt to be agile and proactive. We try to be collaborative and service-oriented, and we certainly hope to be trusted and accountable.

We have had some good Strategic Plan progress, as you can see. We have divided the actions that you all have taken a look at into four different categories, those that are on track, those that we have had delays or that are subject to various issues, some that we have actually completed, and some that we have not started. But what I want to do now is get into each of the goals.

We are going to start with Jessica on the planning side.

Planning Director Jessica Fain presented the following: Good afternoon, Commissioners. I will just go over a few updates that are on several different goals that we have shared with you before related to our regional planning work.

One of our strategic objectives is about improving our regional sediment management system. We are really excited, as Commissioner Showalter described earlier, to have really taken some major steps to advance this work. We call it the SWAP project, the Sediment for Wetland Adaptation Project, which was funded and launched this year.

So far, we have hosted six Sediment and Beneficial Reuse Commissioner Working Group meetings as part of this effort, really bringing along the Commission as we start to explore the challenges around beneficial reuse.

We have conducted stakeholder interviews and briefings, collaborated with many partner agencies.

And as was described earlier, just completed hosting two stakeholder workshops on January 23 and February 13.

Up next is to finalize what we are calling the roadmap for beneficial reuse in the region. Really this multi-purpose, multi-agency map of the things we need to do regionally to address improving our sediment and beneficial reuse system.

After that we will be starting a policy process bringing to you ideas for how we can update our Bay Plan to address these issues, as well as developing a funding strategy.

As Larry mentioned, just really want to give a shout out to the collaborative effort of this. This is both a planning effort, but really tapping into the deep expertise and leadership of our sediment team who is really co-leading this project with us.

Our next strategic objective that I will update you on is about regularly updating the Bay Plan. As you all know, in November you adopted a new Seaport Plan for the first time in over 20 years. One of those changes that you saw in Larry's progress slide that went from in-progress to completed was this one, this one is now finished, which is a very exciting milestone for us to reach.

We have also been making progress on amending the San Francisco Waterfront Special Area Plan. We have been working closely with the Port of San Francisco to really reboot this effort and refocus it, including bringing to you a memorandum of understanding and a slightly revised scope for this year.

We provided recommendations in the fall on the Suisun Marsh Protection Plan and how that plan can start to address the challenges facing the Suisun Marsh today.

We have also begun some early research on our public access policies and how they relate to issues related to wildlife and sea level rise, interviewing stakeholders across the region as well as our own staff.

Coming up next, we will be bringing to you a modified version of a San Francisco Waterfront Special Area Plan. You will be hearing a little bit more today from the Port of San Francisco on some big plans they have for resilience across the waterfront. We are taking a more targeted approach right now on a Special Area Plan update to allow for some of those bigger resiliency plans to be developed.

As well as thinking about as we develop our Regional Shoreline Adaptation Plan, how we are really going to codify that and bring it into our formal policies within the Bay Plan. So those are some things that are on our list of to-dos.

Again, I just want to give a shout-out here to our long-range planning team led by Erik Buehmann, who are really leading the charge on all of these efforts. I will pass it to Harriet.

Regulatory Director Harriet Ross spoke: Good afternoon, Commissioners; I am Harriet Ross, the Regulatory Director. I will be reporting on Strategic Objectives 2.2 and 2.3, which really aim to update our operations to implement our laws and policies more consistently, transparently, and efficiently. As well as to increase the capacity of the Regulatory Division to operate more efficiently.

So, we have been pretty busy since we last presented to you all. We have drafted what we are calling a Regulatory Roadmap.

That Roadmap identifies necessary improvements to existing permitting processes, regulations, and policies.

The existing regulations and processes, as you all know, were for the most part established many years ago and they really need to be updated to reflect the work that we have been doing, especially in the regional climate resiliency and equity space.

The Roadmap also includes updating our regulations and plans to increase clarity and efficiency. We also want to update our public access design guidelines and some of that work has already begun, as Jessica mentioned. That document was created back in 2005 and 2007 so some update is definitely needed.

We are also looking to issue permits more quickly for certain types of projects that really present limited potential to adversely affect the Bay.

For example, we are looking to see how we can improve smaller restoration projects. We have heard a lot from our stakeholders on this. And projects that really involve nature-based adaptation techniques.

The Roadmap also includes more upfront discussion with a recommendation of talking to applicants early, establishing a more formal pre-application process so we can get the big issues on the table and perhaps come to a good solution prior to the beginning of the regulatory schedule and mandates for issuing a permit.

Our Regulatory Roadmap includes those initial recommendations determined and developed by the Department of Finance's mission-based review. Really, that document looks at finding permit efficiencies. We are working with the Department of Finance staff right now to finalize that mission-based review.

The next challenge that we have is we have identified a big list of regulatory improvements that we would really like to make and we really need to prioritize what we will be doing first and next after that point.

And we will really need to create a timeline and hold ourselves accountable to keeping track on these tasks.

I also wanted to give a shout-out to Ethan Lavine, he is vacationing now in South America, I believe. But he is really leading the Regulatory Improvements unit and responsible for much of the work that has been done.

Commissioner Gioia chimed in: Mr. Chair?

Chair Wasserman responded: Yes.

Commissioner Gioia added: I know we have had lots of discussion on equity in this plan. I just think, and I failed to mention it I think when this came up in our, what was the meeting we had, the workshop on this? I think we need to incorporate that language throughout. And where it says "Update existing regulatory and planning operations to implement laws and policies more consistently, transparently and efficiently." I think it would be good to say, consistently, transparently, equitably and efficiently. I would like to propose that. I know we have the equity policies throughout, but I think it is well placed here.

Chair Wasserman agreed: Second that non-motion.

Any other comments? Back to you.

Executive Director Goldzband chimed in: If that is all right, Chair Wasserman. I want to bring one thing into focus. I want to step back from what Harriet said. In 2011 this Commission approved the groundbreaking climate change amendments, which essentially changed in many respects how we do permitting in terms of science-based vulnerability studies, you name it, and BCDC was really the first regulatory agency in the United States to do that.

Since then, we have learned a lot about how to do that and how to do that well, and the regulatory team has taken great pains to take great strides to do so and they have been very successful.

However, we have not changed, really, since then the way we actually process permits or think about how we do regulatory actions.

So, the analogy that I use is that adopting the climate change amendments is sort of like buying a Tesla engine for a car. Something very new, something marvelous, something that will be helpful, something that we all want to do in some way, shape, or form. But unfortunately, we have put that Tesla engine into a 1997 Accord and we have not been able to really make the car move as well as it should or be as effective as it should because the tires do not work with the engine, the transmission is still there, and the body simply does not conform to what the engine needs, et cetera.

So, the Regulatory Roadmap that Ethan has started and Dominick really has started working on, will, if we can get it done well, be able to transform that 1997 Accord into something that we can really be proud of driving. And that will really, I think, work well with the way we do our vulnerability analyses and everything else related to permits that we need to do.

So, I wanted to step back and give you that analogy in hopes that it helps you understand why and where we are going.

Climate Equity and Community Engagement Manager Armenta presented the following: Good afternoon, Commissioners. I am Phoenix Armenta, the Senior Manager for Climate Equity and Community Engagement. I am starting out talking about Strategic Objective 3.1, which focuses on prioritizing BCDC's Environmental Justice Program by identifying BCDC's specific policies, programs and practices that have led or currently lead to inequitable outcomes, and work to resolve them.

Since we last talked, we contracted with MIG and Benchmark Consulting to work with the EJ Advisors on an Organizational Development Assessment of the program, with the goal of strengthening that program.

We also applied to and have been selected for a NOAA Coastal Fellow to analyze our permitting practices with an equity lens.

Our next challenges are to complete the Organizational Development Assessment. As of right now they have done some focus groups with staff, and they have completed one workshop with the EJ Advisors. They are planning two more workshops with the EJ Advisors and are also going to be coming to the next Environmental Justice Working Group on March 21.

With the NOAA Coastal Fellow our next steps are developing a methodology to evaluate equity in the permitting process.

For Strategic Objective 3.5, we are looking to develop long-term relationships and partnerships between and among BCDC and the Bay Area's tribal communities to increase authentic and lasting engagement.

To that end, our senior staff engaged with the training called "Beyond Land Acknowledgement" which was hosted from the Redbud Resource Group. They were testing out that training to see if we could bring that to all staff.

Our EJ Manager has been involved in assembling a team to work on developing our tribal engagement policy.

Last month I met with the Confederated Villages of Lisjan to discuss partnerships with the Shoreline Leadership Academy, which is a program that we are planning to start next fall.

Our next challenges are to draft a Tribal Engagement Policy and schedule tribal engagement planning for all staff. Thank you.

Chair Wasserman asked: I have a question. I do not know whether this is really for you, Phoenix, or more for permitting. One of the things that we did in adopting the amendment to the Bay Plan to address equity issues was to require outreach to impacted communities in a way that is different than the CEQA outreach. My question is whether we have had any experiences or feedback from local jurisdictions as to whether that is having any impact, any blowback, or they just have not woken up yet?

Ms. Armenta replied: We have been working to try to expand on our meaningful community engagement so I have actually worked with a couple of permits along the line, most recently the Oakland Harbor Turning Basin, to do outreach into the community. We did get a lot of feedback on that.

The community still did not think it was sufficient, but we did do a lot more than I think is normally done. Part of this NOAA Fellow is that they are going to be working with each permit and networking with CBOs so that we can have a more robust community engagement process.

Chair Wasserman acknowledged: Thank you. Thank you for mentioning the Turning Circle. I think that is a good illustration where we have achieved success.

The measure of success is unfortunately not that the impacted communities are thrilled with what is being done. We do not do very much that thrills a lot of people. But I do think the fact that we got that higher level of interest and input is a measure of success.

Commissioner Nelson was recognized: Just a comment about tribal engagement. In the last couple of years there has been a real explosion of interest in issues, water issues in the Bay Delta Watershed, upstream from the Bay and the Delta and all the rivers upstream to that. I am hopeful that we can achieve that same sort of flowering of tribal engagement on BCDC and Bay adaptation issues, that would be great.

Executive Director Goldzband continued: Strategic Objective 4.1 is to listen to, communicate with, and engage stakeholders in ways that are more accessible to all, increase awareness of BCDC and its roles and processes, and foster successful community dialogues. We have actually had some success during the past few months.

First of all, our new website is not only being constructed, it is being contextualized, if you do not mind the term. The infrastructure is pretty much done, and the content is being worked on.

I want to thank Ethan and Cory Mann for really taking the lead on content. We had a very good team that dealt with the construction, and Reyliana has been pushing us all to make sure that it gets done. We hope that we will be able to release it and put it online early this spring.

We were able to hire, as I mentioned earlier, Rosie Velasquez, who is a Conservation Corps Intern. We did so in order that not only could Rosie help our EJ practices, but also to help get us a little bit more up to date on social media.

BCDC is now on Instagram. And I can tell you that I know that we are on Instagram because our son who is an Instagram follower keeps sending me things about how good our reels are, whatever the heck that means. So, we have definitely increased our use of social media.

And we have initiated, Annie has done a tremendous job on this, BCDC's first ever media plan. It has not been certainly put into practice yet, but we are working on it and I think it will end up being very, very successful.

Our next challenges are to finish up the website and put it up.

And as I said in my ED Report, use all of our Commissioners who are county supervisors to enable Regional Shoreline Adaptation Plan Guidelines briefings for their mayors and key staff throughout their jurisdictions in order to make sure that they are more aware of what BCDC is doing.

You cannot walk through BCDC these days without somebody asking - when are we going to get a PIO? Well, we are getting there. We are in the midst of requesting, I should say, CalHR to approve a senior level position called Director of External Affairs.

That duty statement includes a part-time PIO, a part-time legislative liaison, a local government liaison and a person who actually has some experience, knock on wood, with CZMA. The next challenge, of course, will be getting it approved by CalHR, which I think they will do. But then, of course, getting it funded during this time of state fiscal disrepair. Even with that I have some hope.

If there are no questions on that, we will go to Goal 5.

Ms. Ruiz spoke: Good afternoon, Commissioners. My name is Reylyna Ruiz, and I am the Director of Administrative and Technology Services. I will be talking to you today about Goal 5, which is to build and maintain an adequately resourced, responsive and diverse organization that can meet its growing challenges more effectively and sustainably.

One of our objectives for Goal 5 was to have staff reflect the diversity of the Bay Area. We have been able to move towards that goal by recruiting great talent to fill those positions. It has been difficult. But with the perseverance of our hiring managers, we have been able to fill some vacancies in this last quarter.

We also expanded our outreach list that the HR analyst uses to notify contacts of job opportunities. And we have enhanced the job posting process to include sending announcement links to all staff so they can distribute to their networks, posting every vacancy on LinkedIn, and also publicizing the opportunities in BCDC on the Instagram, and X, formerly known as Twitter, accounts.

In this next quarter we are working on conducting an organizational health survey, including a separate survey on racial equity.

We will also be completing a workforce analysis and succession planning to better inform our staffing strategies moving forward.

Another of our objectives for Goal 5 is to implement technological upgrades to improve our processes.

Now that we are onboarded to the Natural Resources Agency's Security Operation Center, our CIO Andrew Chen has implemented systems to monitor security, encrypt our devices and collect security compliance and vulnerability data on all of our devices.

In addition to identifying the issues we have endpoint software being implemented to allow Andrew to remediate those identified threats and manage our software deployment and track compliance information across our entire network. So that is a big accomplishment there.

Additionally, we received the findings from the IT assessment I spoke to you about last time. We received a passing score but there are opportunities for improvement so we will be working on those.

We completed the migration, as Larry said, of the existing content on the website into the hosting service. And we did contract with an editor to ensure that our website content is user friendly on the new website when that goes up.

Now that we have implemented these systems to identify the security issues, this next quarter we will be working on implementing a solution for attack detection, threat visibility, proactive hunting and threat response. We will also prioritize the findings from the IT assessment because we do want to address those concerns.

And we will finalize the content with the editor for the website. Thank you.

Executive Director Goldzband continued: So with that, Chair Wasserman, I think you can see that we have been pretty busy. There is a long way to go. I think that it is fair to say that staff who have day jobs to get the permits out or to do whatever they are doing are also part of this whole process to get the Strategic Plan done. It is to some extent fits and starts, but there is definite progress, and we are looking forward to having a higher histogram bar under completion by the end of the year.

Chair Wasserman asked: Any questions or comments from Commissioners?

Commissioner Kishimoto chimed in: I just had a thought, talking about the public outreach and the PIO, which is badly needed, I agree. I am just reflecting that one of the problems is, of course, there are so few journalists around in the Bay Area these days. They are badly missed.

But when I think back on articles that I used to, places I used to go to, to understand trends or some analysis. Bay Nature is actually a great magazine, which kind of talks about the science. And the League of Women Voters in the Bay Area used to put out a regular newsletter that talked about --

Commissioner Showalter interjected: The Bay Area Monitor.

Commissioner Kishimoto continued: Do they still do that? Yes, there's a few sources. But there's just so few of them. The other one is the Committee to Complete the Refuge. They actually have an excellent newsletter that comes out quarterly that I read religiously.

I do not know what we can do about that except maybe get some more articles out in the Bay Nature would be great. I do not know, except to lament that I wish there were more science and regulatory journalists in the Bay Area. Just wanted to share that, thank you.

Vice Chair Eisen was recognized: Thank you for the Strategic Plan update. My experience with strategic plans is they sometimes collect a lot of dust on shelves, and I am awfully glad to see that is not what is happening to ours.

A quick comment on the Instagram account. I am a regular Instagram user, I know what a reel is, and it is really a fantastic Instagram account that has been set up for the BCDC. For anybody who has not yet gotten on Instagram, my name is one stone two birds if you are looking for me. But there is really fantastic, fantastic stuff on there and the BCDC's account is excellent.

Larry started off by saying that we have accomplished some of our strategic goals. It occurred to me that some of them are hard to know whether we have in fact accomplished them.

The first one we talked about, 1.4, the SWAP Beneficial Reuse Program. I am wondering if we have in mind what it will look like when we have accomplished that particular goal, which is to increase the beneficial reuse of sediment? How are we going to know when we have accomplished that one?

Ms. Fain responded: I think there is probably a more philosophical answer and more of a practical answer and I would probably defer to Brenda Goeden or someone on our Sediment Management Team for the real philosophical answer, which has to do with how much sediment is actually getting put into wetlands and beneficial reuse purposes rather than being dumped off into the ocean.

But we do also accompanying our Strategic Plan have specific strategies that accompany each of the objectives. And so, the practical answer would be we have a grant that is helping us implement this and there's tasks associated with it. The first thing is to develop this Roadmap, which is this regional action plan around sediment and beneficial reuse, which I think will really lay out a lot of those metrics that we want to get to as a region.

Then we hope to amend the Bay Plan, with your approval, to help amend our policies to get there as well as develop a funding strategy that will accompany this that is a sorely necessary piece to actually get the work done.

Executive Director Goldzband chimed in: If I can follow up on that. One of the really great pieces of news that we received the past month or two is that due to the increase in funding on the federal side through the Water Resources Development Act work that we have done, more this year of the sediment has actually gone to beneficial reuse than ever before.

Again, so much of it depends upon funding, but we can continue to make progress on that so long as the stars align. From my perspective, the really interesting bit, as Jessica said, is the Commission's role in helping us figure out how best to amend the Bay Plan to ensure that beneficial reuse actually happens.

Chair Wasserman added: I would note that in this area, as in many areas, we do not act alone, we act in conjunction with other partners. One of the strongest pieces of news we heard on this was when we got the report two meetings ago that the Army Corps was including, really on their initiative, beneficial reuse, as part of the project. That is a huge shift in approach.

Are there other questions or comments?

Seeing none, thank you very much for the effort. Thank you very much for the continued effort on progress on this.

9. 2023 Enforcement Program Annual Progress Report. Chair Wasserman stated: That will bring us to Item 9, a briefing on the 2023 progress of the Commission's Enforcement Program. Our Enforcement Policy Manager, Matthew Trujillo, will provide the briefing.

Enforcement Policy Manager Trujillo presented the following: My name is Matthew Trujillo, Enforcement Policy Manager. Today I am going to talk about basically our 2023 accomplishments in the Enforcement Program. I am going to start by a review of our Enforcement Program goals that have been in place since the reinvigoration that began around 2019/2020. Going to talk about some case management improvements we accomplished in the year. We are going to go over some case management data, give you an update on the

progress of our old and oldest cases in the queues, review some of our available resources, and then finish on a high note with program highlights and go over some of my ideas and desires or goals for this upcoming 2024.

Once again, our program goals are deterrence, transparency, consistency and fairness.

Deterrence, we want to remove the incentive to violate the law.

We want to clearly communicate our expectations and ensure that the processes are known and understood by the regulated community, that's Transparency.

Consistency is we maintain a clear and documented enforcement process.

And then Fairness, we treat all violations similar in nature and impact to the Bay and public access similarly.

During 2023, this was the first full year we have had a Compliance program and we have worked on coordinating closely with them, setting up and defining roles and expectations between the Compliance and Enforcement staff.

What I can report out, having worked with them over this past year, is that they have been instrumental in assuming compliance monitoring of any Orders that we have issued and Settlements Agreements that we have issued.

How it works is that when the Commission issues an Order or a Settlement, that essentially closes the enforcement case. It is then passed on to Compliance to monitor and make sure that the Respondent to that Order or Settlement follows through, pays their fines, meets their deadlines, does what they are ordered to do.

They have also been instrumental in managing reports of impending and possible violations and they have been able to resolve many issues without actual formal enforcement action.

For example, there is a boilerplate clause in our permits in the maintenance provision that says that if, for example, we find that there is a public access issue with regard to maybe a piece of a trail is in disrepair or has been shut down for whatever reason. Oftentimes, we will refer that to Compliance rather than opening a case because the boilerplate language gives that permittee 30 days after being notified to fix that problem before it becomes an actual issue, an actual permit violation. Since that is an actually pretty common issue that we run up against, Compliance has been really great in being able to work with the permittees to get them on the right track before we have to open an enforcement case. That has been very helpful.

Milestone Tracking. We use our technology. And by technology I basically mean Excel, for the most part, to organize data and track deadlines.

Approximately 34 of the 71 total cases in the queue as of the end of last year are subject to milestone tracking. The remainder of those are pre-2020 when we did not have this system in place, and they are treated separately and a little differently. We are working on that; I will get to that later.

And 2023 is also the first full year that we have had the new enforcement regulations in place that went into effect on October 1, 2022, the end of last year. These have been instrumental in facilitating more efficient communication.

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We are now able to communicate exclusively electronically, provided we get written permission. That has been very helpful in getting things out the door quickly and facilitating fast response and efficient conversations.

It has also provided, I think is key, a systematic administrative civil penalty calculation policy, that is Appendix H of the regulations. That has helped to standardize how we calculate civil penalties. To do it more transparently, to do it systematically, and it's been great. It has been a learning process, though.

New and improved tools. A formal enforcement docket. This was started under Brent Plater, our ex-enforcement attorney. He basically created a spreadsheet and projected outward for the year, I believe it was 2022 maybe, of all the cases that we wanted to bring forward for formal enforcement that were in the queue. I have since, having come on in March of 2022, have taken that on and done some revision. I have improved the formulas, made it a bit more user friendly, a bit more automated. We are working through that. I did all that based on lessons learned, staff feedback and collaboration.

I have also drafted an administrative civil penalty calculator to make efficient use of all the regulations or the new procedures and policies that are in Appendix H so that now it is a matter of data entry, and the spreadsheet will calculate civil penalties based on the inputs and spit out a good number. But that is still testing, there's a lot of bugs in that, but I am hoping to get that perfected this year, we will see.

In 2023 BCDC Enforcement opened 70 new cases total and resolved 50 of those 70 new cases.

Overall, we have closed 88 cases in 2023 and the vast majority, as you can see from this table to the right, were opened in the last two years, 2023 and 2022.

We had an oldest case in the queue from 1990. We were able to resolve that in 2023 so I wanted to call that out.

Then progress on old and oldest cases. Our management procedure defines old cases as those opened in 2016 and before and defines oldest cases as those opened in 2000 and prior.

Currently, we are down to one of our oldest cases and the number of old cases is now 19. We reduced the number of oldest cases by 2 and reduced the number of old cases by about 14 in 2023, which is a pretty good accomplishment.

Old and oldest cases comprise approximately 52% of the total year-end caseload of 71. In 2024 what I am doing is prioritizing the oldest and unresolved cases for resolution.

We use these resources to do our work primarily. ArcGIS system, we call it the database, where we are able to put pin drops at different properties and parcels throughout the Bay Area and keep notes. That is kind of our case tracking method.

We also have many of our permit files and other files on 1DocStop, which is basically a database that holds PDFs of scanned paper files from basically throughout our history, which has been pretty helpful to have that.

We have transitioned to fully electronic enforcement recordkeeping. We used to do paper files only and then we moved around 2019 or so, 2020 especially we moved into really trying to bring everything online, but we were maintaining both of those for a while. Now we are fully electronic, which has made things much more efficient.

We have template letters and forms that we have developed to support our program.

We rely heavily on our Bay Development and Design Analysts and our Engineer to consult on things, matters of public access design and engineering questions.

And then we have, of course, our standby communication tools, our phones, emails, Teams and Zoom.

Program highlights. We ended 2023 with the lowest case count in the queue beginning since the program's reinvigoration effort in 2019. You may recall that it was used to number in the hundreds, now it was down to about 71. Right now, it is probably at around 74 because we have gotten a few new ones, we are still working through that. But pretty good.

I wanted to make sure I recognized the Compliance staff for stepping up and helping to share that burden.

Certainly, the Enforcement Committee has provided a lot of support and guidance over the year.

And our individual analysts, Adrienne Klein and Rachel Cohen, have been very dedicated and hard working. Rachel Cohen is our newest analyst; she has come along very well.

Of course, Greg and Larry. Our senior staff have provided great support and guidance.

And we couldn't do this without Margie Malan, our administrative staffer, keeping us all on track. She has really taken ownership on the team in terms of trying to coordinate mailings, coordinate our meetings, really very important.

We collected \$425,000 in penalties in 2023, deposited into the Bay Fill Cleanup and Abatement Fund.

Just recently we were selected as an honoree for a 2023 Geo for Good Award that is awarded by Google every year for our use of Google's mapping tools, particularly Google Earth, Google Maps, to assist in our investigations, our research and monitoring of sites around the Bay. It is particularly helpful in the most remote locations like up in the Marsh where we cannot access through any roads, because we do not have any access to boats or water.

We are able to, for example, view historic imagery. When we get an allegation sometimes, depending on how updated their database is, we are able to actually see what actual conditions are, current conditions are, without having to go out there ourselves. Being a small staff, we really rely on these technology tools to help do our job.

In 2024 I aim to put on much more hearings before the Enforcement Committee and the Commission than we did last year. Already, our docket has about six cases. We are stretched out to about May right now and more will be coming on top of that, hopefully.

The work continues to coordinate enforcement, our processes, with permits and compliance. More collaboration there, more process improvement there would be ideal.

And then we are also refining existing and developing new procedures and best practices based on lessons learned in 2023. I mentioned a couple of them such as our enforcement docket.

One thing I am also developing right now is basically a workbook to manage a case. Where it should make it much more efficient to be able to enter the information of a given case or given respondent and their issues into the workbook and then have it populate other tabs that will help us to generate letters and so forth. I haven't gotten it working yet but I am working on it, I am close.

I will be happy to take any questions at this time.

Chair Wasserman asked: Any questions for Mr. Trujillo?

Commissioner Gilmore spoke: This is not a question but it is a comment. I really wanted to thank Matthew and the enforcement team for the dedication and the hard work that they always put in, but in particular the last year they have kept a steady stream of enforcement cases coming to us. And we have had some really productive discussions about just how the enforcement program is done and improvements that could be made so it is really great.

The one thing that I wanted to add was about old and oldest cases. I am not sure how much the Commission realizes that those cases are really time and resource intensive. One, because of the amount of time that has elapsed, and sometimes because the property has changed hands not once but multiple times. So, it does take a lot of time, a lot of detective work, and this is on top of or in addition to the new cases that are coming in.

So, it is the ability to work both ends of the spectrum towards the middle, working the oldest and old cases, versus the new cases that are coming in on essentially a daily basis, and trying to balance the resources needed for both to keep the process flowing along in a reasonable manner.

That balance is not always easy to strike, but I think the team does a really good job. I look forward, and the rest of the Committee, looks forward to working with you and the team as we make even more progress over this year. So, thank you.

Mr. Trujillo acknowledged: Thank you.

Chair Wasserman continued: Other comments or questions from Commissioners?

I assume we have no public comment.

Ms. Ruiz: No public comment.

Commissioner Nelson commented: Just an encouraging comment that this is really impressive and encouraging. If we step back and look back five years to how our enforcement program looked, we have made enormous strides, we are making a lot of progress, both in terms of protecting public resources and in terms of presenting a coherent compliance and enforcement program to the public.

And over time I am confident that is going to mean we have less enforcement problems in the future. That is really encouraging, especially the discussion of compliance today. Thank you.

Mr. Trujillo acknowledged: Thank you.

Executive Director Goldzband chimed in: Thank you, Chair Gilmore, for those remarks. I know the enforcement team takes heart in that because they have a job that is very different, candidly, than anybody else at BCDC. They have to be the bad guys. It is not easy to do that with a smile on your face through the day, but they somehow do.

I will say that thinking of strategic plans and the like, there was no consideration, really, of putting enforcement in really a strategic plan when we started because there really was not anything to really talk about except that we need to do it better. Now, I think we are demonstrating to the public, I know we are demonstrating to the Resources agency that we are doing it well.

I think it is really, really important to keep on hearing from Matthew through the year to give updates because I want us to see that 71 number getting down to 50. You are never probably going to get below 50. But if you can get it down to 50, that would just be remarkable.

The problem with that, or the difficulty with that, and I am looking at Matthew who I think agrees with this, is that the harder cases, those older cases and that oldest case, just take so long to do. That you have to have a portfolio of doing those with other things at the same time. So, I do not know when we are going to get down to 50 but I think it is a great goal to do, especially considering, Matthew, that we were at 230-something when we started this, is that right?

Mr. Trujillo stated: Yes, just about.

Executive Director Goldzband continued: I think that says a lot about staff and staff's work so thank you very much for all of your support.

Chair Wasserman added: And I certainly want to echo thanks to the staff for all that work and this very favorable report; and also thank Commissioner Gilmore and the other members of the Enforcement Committee for their efforts in this as well.

10. Briefing on the San Francisco Waterfront Coastal Flood Study Draft Plan. Chair Wasserman stated: That brings us to Item 10, a briefing on the San Francisco Waterfront Coastal Flood Study Draft Plan. BCDC Planning Director Jessica Fain will introduce the matter.

Ms. Fain spoke: Thank you and good afternoon, Commissioners. I will keep this brief and let the Port and the Army Corps do most of the talking. Our next item is on this draft San Francisco Waterfront Coastal Flood Study Plan, a collaboration between the Port of San Francisco and the US Army Corps of Engineers to address coastal flood risk and the effect of sea level rise across 7.5 miles of the San Francisco Waterfront, from Aquatic Park to Heron's Head Park. We will start by turning it over to Executive Director Elaine Forbes from the Port of San Francisco.

Ms. Forbes addressed attendees: I am really proud of this moment because it reflects many, many years of analysis and work to be at this point. We are happy to be at this point and be able to talk with you today about the Draft Plan.

You know, protecting the San Francisco Waterfront from sea level rise and the imminent threat of earthquake has been a serious matter and something we must address, but something that is also really, really challenging to figure out exactly how to address.

I want to say, we really appreciate and need the guidance of BCDC staff and this Commission as we endeavor for a safe and flood-resilient San Francisco Waterfront.

We have hit this milestone. We started in 2018 asking the San Francisco voters to help us figure out this big problem with a \$425 million bond. We have now worked very carefully with the Army Corps of Engineers, who has guided us in producing a plan of solutions. We started with a lot of problems and now we have a Draft Plan of solutions.

What does this Plan do? You are going to see from my team it really analyzes flood risk and the effect of that sea level rise on the Waterfront and the City and the infrastructure that the seawall and other parts of our Waterfront protect.

The Plan is showing how the federal government and the potential federal interests would respond to this problem, and how they would build flood defenses that really talk about how high we need to go, how wide we need to make that adaptation, and where we should build the line of defense.

You will see today that doing so is an expensive endeavor. Multi-billion dollars at this point, estimated at \$13 billion, but that is a very, very not-defined estimate with design, et cetera, but it is going to be an expensive endeavor.

The one amazing thing is as we move forward, we will have the Army Corps potentially investing 65 cents to every dollar of this project. And so that would represent for San Francisco one of our biggest federal investments in infrastructure. So, it is a tremendous opportunity for partnership.

I want to say that the Army Corps has been terrific in figuring out how to develop a plan that is responding to unknown conditions or future conditions that will be changing. This is the first major plan where they have designed to unknown conditions so you will see monitoring and phased actions, et cetera.

The Army Corps has also considered things beyond just cost benefits and you will see other values related to equity, related to ecology, related to a number of things that matter for us in terms of how we would prepare for and deliver the Waterfront of the future.

We do have a milestone here, but we have a lot of work ahead. We are going to the public with this Plan. And of course, we will be working very carefully with your staff and with Commissioners on how this Plan evolves. While we have a sense of the foundation and the work we need to do to prepare for the sea level rise, we do not have designs for what is on top yet. So, we want our future Waterfront to be at least as wonderful and publicly accessible as it is today so we must leverage other public infrastructure investments, other upgrades, public/private partnerships and an understanding of what the city and state want to accomplish for this Waterfront.

I also want to let you know construction will inevitably happen over decades. There will be sequencing, and we will be leveraging opportunities to do this so the public maintains maximum experience of the San Francisco Waterfront as we figure out how to adapt. The implementation plan is critical as a next step and will take decades to implement. So, we have ample time to consider the regulatory and policy changes that inevitably will need to happen in order to build a resilient Waterfront, and we are looking forward to doing that work.

I think I will end there and turn it over to my staff by saying thank you. Thank you for your leadership to date. Thank you for the work that is to come as we march forward and figure out how to tackle a very big challenge on an old city's hard urban edge and southern Waterfront with industrial uses but also major opportunities for community engagement.

We appreciate your support, and we appreciate your guidance as we move through this project. And so, with that I will turn it over to my team.

Mr. Benson continued: Brad Benson, I am the Port's Waterfront Resilience Director. We really appreciate the opportunity to present to you today and to engage with staff. I am here with Adam Varat who is our Planning Lead for the Waterfront Resilience Program. And online is Melinda Fisher, who is the Environmental Lead for the Army Corps team. Melinda is available to answer questions on the presentation.

We just really want to emphasize the partnership element of this work. This really is collaboration between the Port and the Army Corps to produce both the report and the draft plan that I am going to go through. I will try and move through quickly so that we can get to the policy discussion with the Commission.

As I think many of you know, the way the federal government decides to invest money in water resources projects is through the Army Corps through a variety of general investigations. We were lucky to get this general investigation of coastal flood risk in 2018. A lot of help from our congressional delegation in that.

The study is looking at an unusually long period of time, instead of 50 years, 100 years from 2040 through 2140. It is really an empirical analysis to guide the Army Corps' recommendation to Congress about whether to invest federal funding.

As Elaine mentioned, it is a very high-level draft plan at this stage. Very little engineering, just enough to get to this high-level cost estimate of \$13.5 billion. We expect that number to change; and we will keep on saying that because we do not want folks to be surprised by changes in the numbers over time.

Excited that there is such a potentially large federal cost share of 65%. Even the 35% that we are talking about here is a huge amount of funding for the city of San Francisco to come up in the context of the City's 10 Year Capital Plan. We will need other sources, including state sources, to accomplish a match on this scale.

I mentioned the collaboration. The Port is the City's lead agency, but we are very keen to involve other city agencies. The way San Francisco is built-out we have major infrastructure systems right up at the shoreline, so we need SFMTA, SFPUC, Public Works, at the table helping us think about this Plan, how to refine it going forward.

We would like to acknowledge that we are on the unceded ancestral homeland of the Ramaytush Ohlone, who are the original inhabitants of the San Francisco Peninsula.

As the indigenous stewards of this land, and in accordance with their traditions, the Ramaytush Ohlone have never ceded, lost nor forgotten their responsibilities as the caretakers of this place, as well as for all peoples who reside in their traditional territory.

As guests, we recognize that we benefit from living and working on their traditional homeland.

We wish to pay our respects by acknowledging the Ancestors, Elders and Relatives of the Ramaytush Community and by affirming their sovereign rights as First Peoples.

We have just published a lot of information about this study and the Draft Plan. We have tried to make it accessible on the Port's website. Folks can see a StoryMap that walks through the Plan at the highest level. We have also got the full report available for download, including all of the technical engineering, environmental analysis, including the impact analysis.

We are in this very critical public comment period. We have got a Draft Plan. The way to think about this Plan is it is the work of the project delivery team, the Army Corps staff and the Port staff and consultant team, and it is a draft.

We need public engagement and public comment during this period and going forward to make this a better Plan. We have got four Army Corps-hosted NEPA workshops coming up in the latter part of the month, and we have got multiple other ways for members of the public to engage.

I am going to go over briefly Waterfront Risks and Hazards, which I think you are very familiar with. I will talk about where we are in the study and next steps, go over the Draft Plan at the highest level, and then talk a little bit about how we are going to be further engaging with the public.

As we are thinking about Waterfront Risks and Hazards, we are thinking about it through the lens of how people use the Waterfront today.

As Director Forbes mentioned, we have got an amazing waterfront that is host to a lot of visitor-serving uses, maritime functions, industrial uses across the waterfront, natural areas, like the Heron's Head Park area and Pier 94 wetlands. When we are talking about risks, we are looking at it through this lens and we are also looking at the investment opportunity that we are talking about today as an opportunity to leave the place even better than it is today.

We know that we have current flood risk in the creeks, both Mission Creek and Islais Creek. This southern waterfront photo on the top right is where the City's recycling facility is located. It gets regularly flooded in King Tide events. And on the left-hand side of this slide is the bomb cyclone that occurred in March of 2023.

Had this occurred at an extreme tide elevation, we would have experienced much more in the way of flood damages. We are mostly concerned in this area right now with the Embarcadero Muni portal, which is right near this location. That connects down to the subway and to BART and so we are being very mindful about potential first actions that could deal with the current flood risks so that we do not have a Sandy type of experience with our subway.

We have learned through this study that San Francisco is very vulnerable to sea level rise. Essentially, without action, federal action, much of the area that was filled over the last century and more for maritime and related purposes would be reclaimed by the Bay on the high sea level rise projections.

Without a federal project, the modeling in the study shows by 2050, when we expect up to a foot of sea level rise, up to 500 structures and assets would be vulnerable to flooding, including BART and Muni.

By 2140, on the Army Corps' high curve, damages could amount to up to \$23 billion. That is one of the factors, not the only factor, that will lead the Army Corps to a potential Federal Interest finding for this effort.

Commissioner Gioia interjected: Can I make one point on the slide? I appreciate this. One of the things we have done in presentations about sea level rise, the Bay Area generally, is compare the cost of doing nothing to the cost of attempting to mitigate or fix it. This would be a good slide for you to maybe put down the numbers of what the estimated costs would be to the infrastructure in the City if nothing is done.

I know you probably talk about that generally; I know you have. It just seems to me it is always stark whenever we say how much. When we talk about this, we always repeat this if we are going to try to get support in the Bay Area for any funding.

Mr. Benson acknowledged: Thank you very much, Commissioner.

Previously, the Port published a Multi-Hazard Risk Assessment of earthquake and flood risk along the Embarcadero seawall area of the Waterfront, so the 3.5 miles of the Northern Waterfront.

We know that the fill areas behind the seawall and under the seawall are very weak soils that will not perform well in an earthquake, and you see the potential damage. The bottom right photo here is lateral spreading along the Embarcadero post-1906, right near the Pier 27 Cruise Terminal today, and those soil conditions persist.

The Army Corps' study quotes the Port's Multi-Hazard Risk Assessment. The reason I am sharing it today is the Army Corps Draft Plan does not deal with all of the earthquake risk along the Waterfront. But this information is helping us think about how to design coastal flood defenses so that they will not fail in a major earthquake, and that is a big improvement to the Waterfront that we have today.

This study is really looking at the 7.5 miles of the Port jurisdiction from Heron's Head Park up to Aquatic Park. There are other efforts ongoing in the City led by other city departments that are looking at the other areas of the City's Peninsula. And the City's Sea Level Rise Action Plan points to a unified plan for coastal flood defense on both the Bay and ocean side. This is a big step towards that, but it is not the whole effort.

So, getting into the Flood Study.

We have been at it since 2018. We are at this great milestone where we have a Draft Plan, we actually have something to show to the public to get feedback on. We are going to be getting technical feedback through agencies, including technical feedback from other elements of the Army Corps.

That will help us build a better Plan that can be a recommended Plan that the Chief of Engineers would recommend to Congress in 2026. It is only if Congress authorizes the project that that would open the door to funding for design and later construction. And we do not expect construction to start until after 2030. Again, likely it would occur over decades.

We have assessed multiple scenarios for sea level rise. The Army Corps has one set of projections that they typically use in their planning. We have also used the OPC projections to look at different scenarios.

Essentially, the way to think about the Plan is that we are not picking one scenario to inform the planning process. We are looking at how plans respond to a range of sea level rise scenarios, and coming up with an adaptive management strategy that can respond to all of those scenarios.

Essentially, the path to the Draft Plan has been that risk analysis. Looking at the flood risk and impacts to communities that we have been out publicly trying to engage and understand public values for the Waterfront over the last six years.

In late 2023 we issued seven draft strategies that looked at things from retreating, to defending at the current shoreline, to living with water in some locations. We got feedback on those different strategies. And then went into a process with city agencies and the Army Corps' cost and benefit analysis process to select the best elements of those strategies to come up with the Draft Plan.

These are the public values that we have heard most repeated in the public process. I will not go through each of these, but it has been the job of the Port's Planning Team to bring these values forward in the planning process. Now, we are going to go through a public engagement process to see how the public thinks that we have incorporated these values in the Plan.

The Army Corps historically has looked at the most economically efficient project to address the flood problem, it is something called the National Economic Development Plan. That has governed Corps planning for much of the past 30 years.

They are an organization in change. They have got new guidance from the ASA, Assistant Secretary of the Army, to look at comprehensive benefits. This is what Director Forbes was talking about earlier.

So, we are looking at regional effects of the Plan, environmental issues like habitat and environmental impacts, and then other social effects, particularly impacts on vulnerable populations. So, the Study has metrics in each of these categories that helped inform Plan selection and we think this is a better way to get to a multi-benefit plan.

This is a bit of a first for the Army Corps. Typically, when they come into a local jurisdiction, they are identifying a flooding problem, they come up with a Plan, implement it and hand it off for local maintenance. Sort of the one-and-done kind of scenario.

Here we are looking at managing risk over time, so the Plan includes first actions that represent that \$13.5 billion that we talked about earlier.

And then monitoring, looking at greenhouse gas emissions, rates of ice sheet melt, other factors influencing sea level rise to determine the timing of subsequent adaptations to address higher rates of sea level rise.

The early projects that you see here are related to the Prop A funding that we got from San Francisco voters, so we are doing some risk reduction before the Army Corps will come into play.

Director Forbes really went over this. The Plan is trying to answer these very high-level questions about where to build flood defenses. How high. And you will see that that varies in different areas of the Waterfront. How much space to use. We are trying to gain elevation over space to maintain the connection with the Bay. That also helps us address those weak soil conditions that I showed you earlier. And then how flood defenses can be adapted through subsequent action.

We are very early in the process. So, we do not have any detailed design of these flood defenses. We have not designed the public realm yet. We do not have that construction sequencing or funding plan for the local match. We intend to develop those in later stages of work with robust public engagement.

And we need to think about other investments that are happening along the Waterfront, whether it is in piers along the Port, whether it is other infrastructure. And then how do we knit together this Army Corps investment with other investments that is happening along the Waterfront in a rational way?

The Draft Report that is out on the street right now includes an Environmental Impact Statement in compliance with the National Environmental Policy Act.

There are other federal laws that the Army Corps will have to comply with in order to get this study and this project off the ground, including compliance under the Clean Water Act, the National Historic Preservation Act, and the Endangered Species Act.

BCDC is participating in our Resource Agency Working Group and we really appreciate all the staff time that has gone into that, along with many other agencies who are providing feedback on the Plan.

This is a lot of information on this slide, but we wanted to summarize just a very high-level environmental impact analysis. It is informed by the level of design that we have right now. So, we have a low level of design, the impact analysis follows what we know today.

It has looked at approximately 50 resources. Looking at Bay fill, et cetera, across the top. We are seeing in the Plan very limited Bay fill. Actually, the eight acres that you are seeing here relates to some potential additions to the Plan that are options for the Ferry Building and an area just south of the Ferry Building that is very constrained. You have got the Muni Tunnel right near the shoreline and so we are trying to provide some flexibility in the environmental analysis for future design.

Just going through the Draft Plan.

This presents the Draft Plan at the highest level. What you are seeing here in yellow is the general area along the existing shoreline that would be elevated to deal with either 1.5 feet of sea level rise, or 3.5 feet of sea level rise. That 3.5 feet is really between the Bay Bridge and Telegraph Hill; and I will get into why the shoreline would be stabilized in that area. We are looking to add nature-based features wherever we can, adapting the historic resources that straddle the shoreline.

As we raise the shoreline, I think you are aware of this, we have got a stormwater issue that we have to address. We will be creating a little bit of a bathtub effect. The City operates now relying on the combined sewer system, but extreme rain events travel along the streets and find low points in the shoreline.

We are going to have to come up with a new system for managing that stormwater through storage and pumping, green infrastructure and other strategies, and the Plan includes funding for that.

I will point out in the Fisherman's Wharf area, it is a bit higher there. We are seeing less flood damages in the near-term. The initial strategy in the wharf area is floodproofing of individual buildings and piers. Let me go into some of those details and then I will wrap up.

The wharf area really is a foot or more higher than other areas of the shoreline. You see here on the slide it is also protected in some areas by breakwaters, which knock down wave action. The proposal is for a smaller initial investment in the wharf that would floodproof individual buildings and put short flood walls around piers.

As a result, we are really not seeing a big investment in the shoreline that would deal with that shoreline stability problem and we are really going to have to rely on City investment like our Prop A projects to improve the shoreline. We have got a Wharf J9 project that is going through design now that would stabilize part of that shoreline.

Through monitoring the Army Corps Plan includes later, more robust actions for the wharf that would elevate the shoreline.

In this Embarcadero area of the Waterfront, we are seeing a very robust first move that would elevate the shoreline to deal with 3.5 feet of sea level rise, stabilize the soils, raise the Ferry Building, build new wharves, and put bulkhead buildings back at higher elevation with a transition down to existing piers.

The Plan does not elevate the piers, but it proposes to put short flood walls around the piers. This is partly because it is such a highly developed area of the Waterfront. The thinking was going once to major disruption and have it last for a much longer period of time rather than having to come back into this area and disrupt multiple times.

This shows you a bit how we would improve the soil under the Embarcadero. Gain elevation towards a higher shoreline to new higher wharves, with the bulkhead buildings back on top and flood walls around the piers.

As a result of this robust investment, the Plan does not include a proposed second action in this area. But we are looking at spending Proposition A funding for things like downtown coastal resilience projects that would protect the Muni portal.

Mission Bay is very vulnerable to flooding. The Plan here would raise the shoreline to address 1.5 feet of sea level rise with ground improvements and stabilizing the shoreline. There is a lot more opportunity for nature-based adaptation. There would be short flood walls around the piers in this area.

We have the unique feature of the bridges across the creeks, which are a potential entry point for water during extreme events, to get into surrounding neighborhoods. As we raise the banks of the creeks, we have to have deployables for the bridges that can be temporarily deployed during extreme events.

The actions here get up to 1.5 feet of sea level rise with later actions to raise the shoreline to address 3.5 feet of sea level rise based on that monitoring effort.

I will finish up with the Port's Southern Waterfront, which is where our maritime industrial facilities are. We have got light industry and Muni bus facilities around the creek in this area. Here we would be raising the shoreline to deal with 1.5 feet of sea level rise with ground improvements, nature-based features in the creeks, the gate closure structures only on the Illinois Street Bridge because the City is in the process of replacing the Third Street Light Rail Bridge at a higher elevation, so that is a separate adaptation outside of the project.

I think I am going to try and wrap up now and get to back and forth with the Commission.

The subsequent actions here go to 1.5 feet of sea level rise with adaptation subject to monitoring, to a later move at 3.5 feet of sea level rise.

We are really thinking about Next Steps here with you and your staff. We have got the Resource Agency Working Group. We are going to be going back to the Working Group in this period of time to make sure that we get technical comment from each agency. That would include the Regional Water Quality Control Board, all the natural resource agencies at the federal and state level, to inform both the impact analysis and mitigation as well as potential changes to the Plan.

We are going to be going up to the California State Lands Commission and presenting to them on Monday.

We are participating in your Regional Shoreline Adaptation effort. Adam and Luis are both members of the Working Group. We were really eager to learn how the regional effort can inform what we are doing and how we can also educate people about the Army Corps process.

We are super excited about this. Even though it is going to unfold over a long period of time, it is a level of investment in this Waterfront that cannot only deal with the resilience issues that we are talking about today, but it could lead to exciting investments in new public realm improvements, adaptation of historic resources, improved transportation along the Waterfront, so it really is a generational opportunity. It is a big challenge in terms of the funding, but also a great opportunity for the City.

I think I will close there and welcome questions from the Commission.

Chair Wasserman continued: Thank you.

Do we have any public comment?

(No members of the public addressed the Commission.)

Chair Wasserman sought Commissioner feedback: Questions from Commissioners?

Commissioner Peskin commented: Thank you, Chair Wasserman. I do not know if this is a question, it is really kind of a high-level comment. Which is, the magnitude of the challenge and the magnitude of the response is almost impossible to get your head around.

As Mr. Benson said, subject to plenty of change. This is a very preliminary Plan. Maybe in 2030 there may be federal money. I guess my question is, Mr. Benson, how do you envision the public engagement and public comment in the 60 days? Like, what in the heck? Even an organization like BCDC, like how do you even make comment on this?

You can say, yes, I think this is great that you're floodproofing in the Fisherman's Wharf area and doing adaptation in the Islais Creek area. How do you even comment on this; and are there opportunities for more comment as things become more refined and fine grained?

Mr. Benson replied: That is actually an issue that we have been really worried about. It is such an overwhelming set of issues. And the Plan, it affects so much of the Waterfront over such a large timescale, it is hard for folks to hear the information and then have an immediate reaction to it.

It is also a bit more challenging given the low level of detail in the Plan. We are offering when we are meeting with either Port tenants or neighborhood-based organizations, to brainstorm with folks about the Plan if they do not really know how to respond to the Plan.

But let's say, as an example, their interests might be historic preservation. We are offering to meet with folks, talk in a little bit more detail about how the Plan affects historic resources, what the impacts are that we are seeing, how it is investing in those historic resources, and just being available for a brainstorming about how they might comment on the Plan in a way that might actually affect the Plan. So that is one strategy that we are using.

I think going to maybe the other point embedded in your question is, this is not the only opportunity for public comment. This is the NEPA public comment period.

We really see a process where we get into the design phase of the work. Director Forbes talked about like we have not designed what goes back on top yet, the public realm.

I think in terms of our San Francisco planning efforts, when we can get into a specific discussion about what is happening in a specific location along the Waterfront, how it is going to affect how people use that area of the Waterfront, I think we will get much more engagement and feedback as to how to further shape the Plan.

We are not looking at this as the only public comment period, we are looking at it as the first of many.

Commissioner Peskin continued: Maybe this is a question to ourselves, but what is the role of BCDC and McAteer-Petris? Special Area Plan, Bay fill questions, 50% rules? 2030 is actually not very far away and this thing is undergoing federal environmental review. What is the role that BCDC, I realized we are involved, but what is our role?

Ms. Forbes fielded this question: I would like to make some comments and also go back to your prior question, Commissioner Peskin. The role of BCDC is enormous here because we have to make these improvements consistent with the vision of BCDC and the public waterfront we are seeking to retain.

There are certainly legislative and policy changes that need to be made to deliver a cost-effective project here and to maximize public benefits, so we will need this Commission and staff will need to rethink things like the fill removal requirements, and what public access looks like in a Waterfront that requires a higher and broken fabric from the historic shoreline heights.

So, there's just many, many considerations here. I think that is the dialogue that we will need to have the collaboration and direction we will need to have, along with the State Lands Commission, to get this right. It is an enormous challenge moving forward and one of the key challenges, I think, to have a successful project completed.

Back to the public comment. I think Mr. Benson said it right, it is a concern we are having. I do want to recognize that in prior public comment we heard very, very strongly the connection and attachment to the Ferry Building. The Army Corps of Engineers found preliminary federal interest in the importance of this historic resource nationally, to contribute to raising that building.

Commissioner Peskin added some levity: That is raising with an S, not a Z, right? (Group laughter)

Ms. Forbes: Yes, thank you. But I wanted to provide an example where public comment, while we are in the conceptual stages, has made an impact.

Commissioner Peskin added: I can see for BCDC and for the Port a lot of inherent conflicts in both of our arguably shared missions. On the one hand when you talk about connection to the Waterfront, and on the other hand you talk about historic preservation which at least in the case of the iconic, cherished Ferry Building, means raising it up several feet, you are also cutting off the connection to the Waterfront. There is a lot of complex stuff here. How high are you talking about, 6 feet?

Mr. Benson answered: I do not want to get into exact numbers because it varies depending on the area that you are at, but there is a low point just south of the Ferry Building that is about 8 or nine 9 feet. Our current design elevation that we are looking at for that area is to get up to about 15.5 feet.

From an urban design perspective, you can imagine how difficult it is to get up to that higher level, which is part of why we are looking at how much space we are talking about. Gaining elevation over space helps with that. So that is an example of one location.

Commissioner Peskin acknowledged: Yes, that is tough. And then before I relinquish the microphone, how much of this is being driven by the Port and how much is being driven by the Corps and how does that dynamic work, given that it is 65 cents of their pennies to the dollar?

Ms. Forbes replied: I can attempt to answer that question. Much of it is driven by the City and the Port. The initiative really started as a city initiative, and you will remember this very well from your President of the Board Chair, that we wanted to initiate this process to figure out a plan. It is the City and the Port driving the process. The Army Corps of Engineers through the New Start is our partner, and it is now their interest to figure out how to solve this problem and reduce the cost of no action. They are a partner in this, it will become their Plan with us.

They have made clear that when we move forward with the federal appropriation, we are hand in hand together in terms of implementation. I hope that describes well the relationship and who is behind it and how the partnership works.

Mr. Benson asked: Melinda, is there anything you would like to add to that answer?

Ms. Fisher commented: I think the main thing here is the Army Corps policies and the various laws that the federal government must follow are in play here. At times there is federal policy and state policy that must both be followed. Sometimes they are in conflict.

For example, sea level rise curves can be a challenge between the two. Ultimately, it will be up to Congress to decide, so this goes really high, much, much higher than all of us here. As Director Forbes says, it has been a great partnership so far and there's a lot of different players going on and decision-makers involved.

Mr. Benson continued: Thank you, Melinda. I want to go back to the question about BCDC plans and policies, because I do not know that we really answered that at all. Jessica, do you want to talk about the Special Area Plan, et cetera?

Ms. Fain commented: Yes. If you recall, during the Strategic Plan briefing I was mentioning how we changed our approach to the effort for the Port and BCDC to update the San Francisco Special Area Plan. And we did that with this in mind. We decided for now to try to take a more nuanced and targeted approach to some near-term actions that we can do together. But to pause a little bit because we know there are some larger, as you pointed out, larger policy issues that we are going to have to work through.

Right now, we have a staff team that is putting together comments. So, we will be really digging into our laws and policies so that we are providing those to the Port and the Corps during this comment period. And we have also, as mentioned, had the chance to share a lot of those already as we have been going through this process and participating in the ROC.

Ms. Fisher noted: I just wanted to add to that. This is an ongoing process. We will continue working with BCDC and all agencies in the Bay Area including National Marine Fishery Service, US Fish and Wildlife, the Water Board, other agencies, throughout this whole process.

And then when we get into our preconstruction, engineering design phase, where we are going to have more of that detailed level design available, that is when we are really going to be coming to BCDC and requesting the consistency determinations or needing to update the Special Plans and different things like that. At this phase in the study, or in the study phase, everything is being taken into consideration.

We are trying to modify our Plan as much as we can to be completely compliant now, however, we do not expect to achieve full compliance prior to the Chief's report-signing or prior to Congress authorizing the project, because we just do not have the detail and we will not at this phase.

So, we will continue that in the future. As everyone has said, this is a long process. It is not done. But we have been working closely together and we will get there for sure prior to construction. We cannot proceed before. So we have to have compliance with everything.

Commissioner Gioia was recognized: I had one question. Unfortunately, I have to leave so no disrespect to the Port, but thanks for the presentation.

I know financing is really the subject of other discussions, but the Port is the largest real estate developer along the Waterfront, right? Are you already anticipating financing plans as part of developments that are approved along the Waterfront to pay any local share for this?

Ms. Forbes responded: We do some public-private partnerships, and we also have a lot of facilities that we manage directly that do not have public-private partnership relationships.

We are thinking of our development proposals that have come through. Most recently we have had a lot of discussions around Piers 30-32. That is an example of where that project will lift and prepare for sea level rise and provide seismic improvements. We are looking into whether that contribution, that investment can count for our 35 cents, as a way to make our match so we can move forward with other projects.

We try to leverage public-private partnerships wherever we can, also to pay sea level rise tax when we have repaid the infrastructure investment we have needed so we have another source for other improvements in other areas.

We are very much underfunded, very, very underfunded, so we are going to look for public-private partnerships that we can leverage that private investment to enable us to pay for more public improvements.

But there are many, many areas where we are going to rely on state grants, city general obligation bonds, and other ways to find funding, because this is overwhelmingly a public cost, as we see it.

Commissioner Gioia acknowledged: Thanks.

Commissioner Nelson chimed in: I think like Commissioner Peskin my first response is, holy cow. There is a lot, there is a lot in here for us to chew on so thank you for this briefing. A couple of questions and a couple of comments. A detailed question then a broader one.

When you were talking about the piers you were talking about building floodwalls around the piers, so I want to make sure I just understand what that means. That means not raising the deck of the piers up, that means building floodwalls so that we would have piers that would be below water level, which I have a really hard time wrapping my brain around. Do I have that right?

Mr. Benson agreed: Largely, right, yes. Think of it as asset level protection. The flood walls around the piers are not protecting the City, they are protecting the piers.

The reason that they are short flood walls is because we, like you, only see that working to knock down extreme events and waves that cannot manage water that is routinely higher than the pier deck. We have got another issue with maintenance of the pier underneath. That becomes problematic with sea level rise.

Commissioner Nelson continued his inquiry: That was my next question, will the piers take that?

Mr. Benson explained: We are looking at all of these issues. It is a federally recognized district. We have constituents who helped us nominate it to the National Register. We really take seriously our role as steward of the district and there are some real challenges that we are looking at here in terms of how sea level rise is going to affect the piers.

Commissioner Nelson had additional questions: Next question is about costs. The \$13 billion price tag both is an enormous price tag, and it is not a surprising price tag. When you presented one of the maps that showed the San Francisco Waterfront, this is one of four different reaches around the Waterfront that it would take to have a complete plan for the whole City's shoreline, so that is important context.

Can you help us at all understand what the big cost drivers are of that \$13 billion price tag? Is most of it one thing? Is it spread out over two dozen categories? Just so we have a sense of what is driving the cost of plans like this.

Mr. Benson replied: The weak soil conditions along the shoreline are a big driver of those costs. Dealing with a city infrastructure and trying to navigate around city infrastructure. Thinking about the actions that are being taken related to the Ferry Building and the historic pier connection to the shoreline area. Those are some of the things that are driving costs in the Plan.

Commissioner Nelson acknowledged and continued: Okay. And just a couple of comments. We have spent a lot of time, an enormous amount of time, over the last several years in a discussion about sea level rise. A lot of what we have done is planning to plan. This is actual planning for a very complex urban waterfront, and it is sobering. And this is just a fraction of San Francisco, which is a fraction of the Bay shoreline, which is a fraction of what California will have to do as just one state. It just gives a really important sense of the collective challenge we face if we do not get climate change under control and if we do indeed face a worst-case scenario.

San Francisco is a wealthy city, in an area that is wealthy, in a state that is wealthy compared to the rest of the country. And yet, looking at those costs is sobering without wrestling with how as a government we deal with enormous costs on the southern Atlantic

Coast, on the Gulf Coast. It is just a really important context when we realize that as big as this Plan looks, it is tiny. It is tiny compared to California's and the national challenge we are facing. Thank you.

Commissioner Randolph took the floor: Thanks very much, Brad, and thanks, Elaine. My questions have been partially answered but I want to go a little bit farther on a couple of them.

One is on the pier. It sounds like the Plan is not just about the seawall but includes the structures and the piers. Can you say a little bit more about the walls around the piers. Because I work on the Waterfront every day and in the last month, I have seen sometimes the water lapping right at the bottom of the pier. So even with the wall, how do you deal with the challenge of water coming up directly underneath the base of the pier over time?

And the other question related to the piers is, I thought I heard you say that you would move the bulkhead structures higher. But how do you move a bulkhead structure higher this connected to a pier?

Mr. Benson explained: That is a good question. I will tackle the last one first. We have not done all of the engineering work that we would need to do to really answer this question. But essentially what you would do is likely disconnect the bulkhead building from the pier shed, that is something that you do anyway, to install a seismic joint for these piers, then you would brace the bulkhead building, move it offsite to another location, rebuild the wharf at a higher elevation, and put the bulkhead building back with transitions down to the existing pier level.

And we have done some conceptual studies looking at that. As Director Forbes mentioned, that creates an impact in the district because you are changing elevations within the district, but it also replaces a very vulnerable part of the district. The wharves are the oldest part and aging fast.

Commissioner Randolph continued: The other question I had relates to, I think, what Commissioner Peskin mentioned, our jurisdiction with BCDC. We are going to be permitting projects that will have a lifespan, presumably, that go way beyond 2030.

It is not just Pier 30-32 but thinking of that specifically, have you thought in detail yet how you would factor in the kind of investment that might be made by private sector partners to reinforce the water, in particular rather reinforce the seawall in segments of the Waterfront? Of course, integrated into the entire Plan, but where there is an opportunity to bring private finance in to contribute to part of the challenge.

How are you thinking about that? Because I think it will come up as we go through various projects. And I think it may take a fair amount of rethinking just the strategy of the Waterfront and State lands and how do we adapt our policies and other policies to meet this new set of issues?

Ms. Forbes chimed in: I want to talk a little bit about the finger piers and then try to answer your very good question. The finger piers, while the Plan is recommending moving, establishing that line of defense at that wharf area, at that bulkhead area, returning those

historic bulkheads, and simply leveling down to the piers at their historic levels, that is very unlikely to be what the City and the Port will propose ultimately about what goes on top when the project gets implemented.

We will be exploring which historic piers have capability and we would want as a city to see elevated, and which will need to be demolished, essentially, or will not move beyond a certain point. And the challenge of how to do investments over time.

We will want our public-private partnerships to come in and make investments in these historic piers during this long tail of time we still have left with the district. We did a study to see, how do we move the historic piers out further, and these floodwalls help substantially. There's still episodic flooding and challenges, but this can save a pier for 30 years for public enjoyment.

There's optionality, in which we have to advance and analyze so we keep the district in a good state of repair as long as we can for the public's enjoyment and make key decisions about what of the historic district we save for future generations and what we let fall to sea level rise. This is a very complicated set of questions that we have not yet answered, so I wanted to make sure the Commission understood that.

As to the question, and Brad will help more, as to the question of the public-private partnerships. One of the biggest challenges is how do we phase the project's implementation? So, if we have a public-private partnership that can advance, say, a Pier 70 project, raise the level of the shoreline, prepare for sea level rise. How do we make that project work with the future line of defense that the Army Corps plans to implement with the City? So that is a complex set of questions. We will need to resolve that in Piers 30-32. So essentially, our investments fit together but in different sequencing over time. So that's one of the challenges we are facing and we will have to solve.

Commissioner Randolph continued: Could I add just one thing to that. Thank you. For a long time, there has been an issue with the Port of not having the capital to protect and restore the piers. So that is an old one and now the cost has just gone way, way up.

There has been an historical debate about, well, could you put housing or other facilities on the piers, and there does appear to be a big challenge of adequacy of capital and funding. So even with a private developer coming in on a property, it looks like it is going to be more expensive over time.

But it is a source of finance and so it strikes me that that's one of those issues, a complex amount of issues, that is somehow going to have to be figured out. Does our current framework for not having housing or other office space on piers actually fit with the capital requirements for this set of challenges, if we have the opportunity to address it with private partners?

Mr. Benson stated: I think I just wanted to add one, one thought, thinking about Piers 30-32. Obviously, a lot of effort has gone into that with the state legislation and collaboration with you and your staff. We are lucky to have a Coastal Conservancy grant to look at that sort of larger segment of the Southern Embarcadero so that we can do more refined planning to

think about how this Plan fits with that investment, knowing that the 30-32 investment could well precede the Army Corps investment by quite a while. So, we have got some funding to advance that planning effort.

Commissioner Randolph acknowledged: Thank you.

Commissioner Gunther spoke: Thank you, I really appreciate this presentation. The scale of the problem is indeed enormous. And the only way we are going to get our heads around it is if people like you are going to have the ambition and the wherewithal to start leading us along what is going to be a very, very long path that we cannot even understand yet.

The question I have has to do, I wanted to understand the presentation about the cost-benefit analysis that will be underlying the Corps' participation. And I believe what I thought I heard you say is that there is new guidance at the Corps that is going to allow for the incorporation of non-monetary or difficult to monetize benefits and costs into this analysis. Did I understand that correctly?

That was the frame of over the years with understanding costs and benefits of dredging, that there is a very, very particular structure that the Corps uses, and it seemed to be a little more restrictive than the structure that you were describing. And that will allow us to really get our arms around all of the economic impacts that the project or the No Action alternative will include.

Mr. Benson chimed in: Melinda, would you like to answer that or would you like me to answer?

Ms. Fisher replied: No, I can definitely take a shot. Yes, you heard exactly right. The Assistant Secretary of the Army has issued new guidance that includes a comprehensive look at all of our, what we call, four accounts.

In each of the four accounts, two of them are monetary. So, the National Economic Development, which is what you are more typically used to seeing, for example, like with the dredging, of cost-benefit ratio, something very defined.

But then we get into these other social effects category and environmental quality. So, this is where we are going to start looking at things like life safety, or benefits to environmental justice communities, transportation benefits that are not related to costs of the transportation being down or something. Can people get to work, can they not? Housing. Lots and lots and lots of features. The engineering with nature features that are incorporated through some of this. We can benefit from the value of that or the potential for reducing stormwater overflows from the combined sewer system. Things like that can all now be incorporated and looked at and cumulatively used to justify beyond a positive cost benefit ratio.

Commissioner Gunther continued: And so we can also use the loss of, if we do not approve something, the loss of that. I am recalling the cost benefit analysis for the impact of the cost of the sand spill, and the largest cost was the loss of people's ability to go to the beach. When we added that up you come up with some value that if you added it up, it was actually an enormous amount.

That is very exciting to hear and I look forward to seeing. I know it is a struggle for you guys to figure out how to do it, but I think that is a much more realistic basis on which we will then be able to think about the cost benefit for implementing these projects over the coming decades. Thank you.

Ms. Fisher acknowledged: Yes, definitely. The main report and the economic appendix, engineering appendix, they all have a lot of detail in how we identified the cost, the benefits, and all the tradeoffs of the different other social effects, environmental quality, things like that.

But to your point specifically about looking at what would have happened, absolutely, we compare all of our costs to what we call the Future Without Project Conditions. So that would be if we did nothing; and that is our baseline. So, everything above that is what we consider a benefit or a positive impact. For monetary stuff, that is what contributes to the benefit cost ratio. But for things that are nonmonetized, that is how we can demonstrate, look, this is a really positive thing. If we were able to save 20,000 jobs, and I am making up numbers, I do not know exactly what it was in the report. But if we were able to save that because that is what would have been lost. We can say, this is really valuable to get to this next plan, which has all these other great benefits to it.

Commissioner Eklund commented: I think Commissioner Peskin hit it right on the nose. This project is huge. And the complexity of the project in and of itself, let alone looking at the regulatory and all the competing interests, is just overwhelming.

Having worked for the Army Corps of Engineers for 8 years and the US Environmental Protection Agency for 35, I can really understand, and I can see BCDC having to, and other regulatory agencies, to really rethink some of our requirements.

Ms. Forbes, I totally agree that at some point I think all of us are going to sit down and figure out how we can implement as many non-structural improvements and retain the historical structure but still maintain the jobs and the quality of life and everything for San Francisco because it is what draws people. What you are doing in San Francisco is drawing more people to San Francisco.

But the question I have, Ms. Forbes, for your colleague there is that San Francisco cannot be the only port or the only city that is dealing with this, sea level rise. Have you reached out to other small and large cities throughout California or even the United States on what they are doing in order to try to balance all the competing interests while maintaining environmental protections and all the regulatory requirements that you can meet.

Ms. Forbes replied: We have reached out. We have reached out and there are lessons learned all over nationally. And the Army Corps of Engineers, Melinda, has been especially attuned to helping us understand the way other jurisdictions have responded.

We have, and Brad Benson will help me with this, but we do have some very key examples that are helping us figure out the path. This is a hard edge, historic, old waterfront. It has all the utilities coming to its edge so ecology gets a little bit harder, retreat is harder because of the infrastructure, and these are things that we are learning and will share with other jurisdictions, actually old cities on water's edge.

So, we are ahead but we also have examples, specific projects, especially those who have responded to disasters, Katrina, Sandy, lessons learned Norfolk. Great, great collaboration and work ahead. And the Corps has given us these tools to learn from other experiences.

Commissioner Eklund continued: That's great. Melinda, thank you very much for taking that. When I worked for the Corps, it was a different organization.

I have a ton of other questions, but a lot of these questions are more detail oriented and not appropriate for this. But I really look forward to continuing to be engaged in this and trying to think outside the box and how we can do a win-win for not only the environment but also for the future of the city and county of San Francisco and the Port as well.

Ms. Fisher chimed in: This is Melinda. I wanted to add to what Director Forbes said that we have reached out to a number of groups.

But as Mr. Benson also mentioned, we are leading the pack at the national level with this project. A lot of other projects, there were a few projects slightly ahead of us, but they did not incorporate the adaptation over time, the monitoring protocols. We really are paving the way at this scale but there's a number of projects right on our heels, we are all working very, very closely.

For example, Boston, Charleston, Miami, all of us have been collaborating at the Corps level, the federal level, trying to figure out how do we even deal with such a situation.

As you know, all of those different communities have drastically different ecologies, historic value, floodplains, everything about it. It has been a learning curve, but I know our leadership and everyone else seems to be very pleased so far. San Francisco definitely will probably be on the map if this thing fully goes through.

Commissioner Eklund acknowledged: Melinda, thank you so much, very much for really advocating for that. I know it is difficult sometimes in the federal government, but really appreciate it, thank you.

Commissioner John-Baptiste was recognized: Thank you to the Port and to the Army Corps for the presentation. I got a little bit lost in some of the complexity of this, so I am going to ask just a couple of foundational questions.

My first question is, when you talk about the engagement between the Port and the Corps and the project, is the project essentially the uber project responding to sea level rise? Let's call that the capital P, Project. And then underneath that there are a series of smaller projects which could include things like lifting the Ferry Building up to adapt? Or is there a defined set of interventions that the partnership pertains to? And is there a timeline on this body of work, either by when it needs to be completed or some other milestone or deadline?

So that is one question, just the nature of the partnership and how it applies to the really complex set of interventions that will be required.

And then another question relates to funding. I believe that there was a period of time where you were looking to secure commitment, a federal commitment to support this work. Is that a one-time ask that essentially gets banked for the life of implementation? Or is it

intended to be more of a rolling basis of, there will be projects coming through over the course of decades that we will need to seek funding authority at the time at which match is available, et cetera.

Ms. Forbes responded: I will start that one. I think the fundamental answer is we do not know answers to your questions yet because we are at the phase where we need to define what the actions are in this overall project.

I would describe it as an overall big scale project to provide flood protection to San Francisco based on the sea level rise curve. So that's The Project. But how we implement The Project is the next big piece of work for the City and the Army Corps to uncover.

It is very unlikely we will do the whole 7.5 miles of Waterfront at one time. We will look for first actions that we can take that fit into the City's interest, where we understand how the utility situation will work, where we have a good plan of implementation.

I believe we will have sequential appropriations for stages of the project. And Melinda will help here. But in terms of how to phase for the Army Corps, it is going to be where there is the most flood risk and where we need to take actions early. It will be of analysis of dealing with risk earliest in the areas it needs most urgent action.

We will also be looking for phasing and implementation that allows us enough space and room for design to take big actions that come down the road, like you will see in the historic Embarcadero.

The actions proposed in the Plan are to High levels, are to 3.5 feet instead of a lower level, because the analysis says you do that at one time, you do not take sequential phases to adapt because it is too expensive and too disruptive. But there we will need a lot of design so we will be looking at phasing. I almost call it a program, phasing the program so we do enough design, so projects are ready to implement.

But these are all the big work of moving from this conceptual concept of how to provide flood protection into specific, discrete projects where we know what is on top and how to coordinate the infrastructure moves that have to occur.

And that can include upland flooding concerns from the PUC, as one example. So, these are all the pieces to work through. The Army Corps has shared with us that implementation and the strategy around implementation is really key work to get right in something of this scale.

Ms. Fisher added: Yes, absolutely. To add to that, whatever is recommended to Congress, that first action, if it is authorized by Congress, it is approved I guess you could say. Now, we all know Congress, and we are then dependent on the funding stream.

If we get a huge supplemental bill, we may get all the funding right up front and then the 35% cost share would need to come as it is available and maybe that money, the federal money is put in a bank or something like that.

Otherwise, if we do not, it may come in work plans and so we would just have to request the money as time comes on. Hopefully, ideally, that would match what the cost share availability is at the time and whatnot, so that first action is guaranteed dependent on federal funding, of course, and Congress appropriations.

The second action, we have been advocating for trying to make it more streamlined, so the second action would be the adaptation features or the actions we have been roughly assuming to happen into 2090. But it could be sooner, it could be later, it is just entirely dependent on the monitoring results.

We are trying to advocate that the authorization to Congress would streamline it, so we do not have to wait as long, that we are kind of set up in the queue. But because this is the first of the nation, first of the Corps, of course, as you can imagine, there's challenges to that. We are going to keep fighting for that, but we do not know what is going to happen 100% with that second action.

But the first action, if Congress approves it and is subject to funding stream, would be available for funding from federal funding.

Commissioner Showalter was recognized: I was going to ask the question that Alicia just asked so thank you very much. I would just like to offer my compliments for the Corps for taking such a comprehensive view. I think that is very valuable because if these projects do not fit together on a hydrologic, hydraulic basis, they will fail; and we do not want that to happen. So right from the beginning, looking at them together is extremely valuable so thanks for doing that.

Commissioner Kishimoto chimed in: I will just add my one quick comment. I also agree, it is very, very impressive to see this very thoughtful, comprehensive, multi-benefit approach. Really, hats off to all of you for working on that.

The one question I will ask has to do with there was a comment that they thought the benefit was going to be all public benefit. I guess my question is, who owns the Waterfront? Is it actually the Port that actually has ownership of the wharves and ports and such or are we looking at like 1,000 owners?

Ms. Forbes explained: It is the City that owns the Port of San Francisco, but under trust to the state of California. We are statutorily a trustee of the state of California, but we are an enterprise department of the city and county of San Francisco. But the Port Commission and the Port organization is charged with the maintenance and development and repair and operations of the harbor.

Commissioner Kishimoto continued: But the wharves can be individually owned, obviously, and the buildings?

Ms. Forbes replied: We do long-term leases, so very little. It is all public ownership with long-term leases. If there is not a trust benefit for some seawall lots or other purposes, we sometimes have a property sale, but it is very, very rare. It is all under public trust and public ownership.

Commissioner Kishimoto acknowledged: I see, okay, great. That is one thing I did not see in your reports and you might want to consider adding that. Thank you very much.

Commissioner Eckerle commented: I just want to thank the Port and the Corps for the fantastic presentation and responses to all of our questions. It is really encouraging to see this Plan that is innovative, it is science-based, it has that phased resilience planning component and embedded monitoring, so that we can understand what is happening and adapt over time.

I just wanted to better understand, this might be getting weedy, the Army Corps projections in that one slide that compared it with the other projections. They looked like they were lower than the national report scenarios. Maybe we do not need to get into that right now because the Plan contemplates resilience up to seven feet. My main question is, is it possible that if those projections are shown lower, that funding from the federal government would not support planning up to that seven-foot level?

Mr. Benson replied: We did look at both the Army Corps' projection and the OPC's projection, Commissioner Eckerle. The Army Corps' High curve is bounded by the state of California Most Likely curve on the low end and the 1-in-200 curve from the prior guidance.

Again, we are not choosing a specific curve, right. It took us a long time to get to this because as planners we wanted to know what we are planning for. And it is an uncertain future and so we are looking at adaptive management to manage risk over time.

I think the Army Corps' regulations require looking at the three Army Corps curves and also do not allow choosing a specific curve, or at least our study guidance did not allow that. I have heard nothing about a constraint on federal funding related to specific sea level rise curves, but Melinda, maybe you could handle that part of the question.

Ms. Fisher stated: Again, the first action, depending on where you are along the Waterfront, is tied to an elevation, so that might be 1.5, or 3.5., which then correlates to various curves, as you saw all those curves in there and there was a gray line across that had 1.5 and showed you where you are at in those.

Those would be committed to if Congress did approve the project. So even if the curves were lower, or our actual existing condition were somehow lower, we would not take that back or take the structure off the land.

Where the funding might be tied to is more related to the monitoring. If the monitoring is indicating that sea level rise is more aggressive, maybe it is on the higher curve sooner than we thought it would be, that is where federal funding, we would need to go back to Congress, ask them for more, and then we would do the adaptation.

The adaptations for the Draft Plan does include up to that USACE High curve. As Brad said, it is kind of in between the two California curves. So that is how the funding is tied to two curves.

I would be getting way outside of my lane if I even tried to explain how the USACE curves were come up with versus other ones, other than I do know these ones are tied to the tide gauges locally, to where a lot of other curves are based on some tide gauge somewhere else in the nation or along that particular coastline or something like that.

And then the other piece that I wanted to mention is our elevations that we have come up with are actually based on what I like to call a perfect storm, where we have high tide, a 1% Storm, plus sea level rise. The likelihood of every single one of those happening, it could happen, but is lower probability. In a sense we could be over. We are overestimating if only one of those happens, so there is a little bit of wiggle room there if the curves are off or something like that.

Mr. Benson added: And I just wanted to offer one quick clarification, which is that we are not raising the shoreline either 1.5 or 3.5 feet. We are coming up with an elevation that will deal with 1.5 feet of sea level rise or 3.5 feet of sea level rise, and that translates to like 13.5 feet and NAVD 88 for 1.5 feet of sea level rise, and 15.5 feet NAVD 88, North American Vertical Datum. So just wanted to clarify that.

Commissioner Eckerle acknowledged: Thank you both so much. I was clear on that second piece and really appreciate your answers to my questions.

Chair Wasserman noted: I do not see any other hands from Commissioners, so with that I join in thanking you for the work and the report. Yes, very comprehensive, but it needed to be, so thank you. Thank you very much.

11. Adjournment. Upon motion by Commissioner Gilmore, seconded by Commissioner Nelson, the Commission meeting was adjourned at 3:38 p.m.