San Francisco Bay Conservation and Development Commission
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TO: All Commissioners and Alternates

FROM: Lawrence J. Goldzband, Executive Director (415/352-3653; larry.goldzband@bcdc.ca.gov)
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SUBJECT: Draft Minutes of July 20, 2017 Financing the Future Working Group Meeting

1. **Call to Order.** The meeting was called to order by Acting Chair Zwissler at the Bay Area Metro Center, 375 Beale Street, Ohlone Room, First Floor, San Francisco, California, at 10:35 a.m.

2. **Roll Call. Present were Group Members:** Chair Zack Wasserman (arrived at 10:45 a.m.), Acting Chair, Alex Zwissler and Commissioner, Kathrin Sears (arrived at 10:40 a.m.), ECRB Member Robert “Bob” Battalio, James “Jim” Cervantes, Roger Davis, Jeff Holzman, Mark Northcross, Michael Paparian, Paul Rosenstiel (arrived at 11:24 a.m.) and Chad Spitler.

Not present were Group Members: Commissioner J.R. De La Rosa, Commissioner Geoffrey Gibbs, Commissioner Jennifer Lucchesi, Commissioner Aaron Peskin and Justin Cooper.

BCDC Staff members present were: Chief Deputy Director Steve Goldbeck and Adam Fullerton

The audience included: Jeff Rhoads, Resilient Shore, Kathleen Schaefer, U.C. Davis & Resilient Shore, Chris Choo, Marin County, Mary Sackett, Marin County, Maureen Parton, Marin County, John Kim, Marsh Risk & Insurance, John Lane, Marsh Risk & Insurance, Tony Moraes, Marsh Risk & Insurance, Ed Morales, Marsh Risk & Insurance, Leslie Alden, Marin County, Joe Tootle, ENGEO, Heather Green, City and County of San Francisco, Nuin-Tara Key, OPR and Roman Berenshteyn, Bay Planning.

3. **Approval of the June 1, 2017 Meeting-Summary.** The meeting-summary was approved with no opposition or abstentions.

4. **Climate Change, Rising Seas and Insurance – to be led by Marsh risk & Insurance Services.** Mr. John Lane addressed the Working Group: We are here to talk about risk management and insurance. I will be setting the stage for the presentations to follow. We will talk about insurable risks in Marsh and then we will get into the detail of property and environmental risks and some of the risk-management techniques that are being used by companies in the industry and then we have some Q&A to follow.

We will present how industry is thinking about flood risks and insurance. This issue is something that should be concentrated on and we all agree that sea level rise and flood risks are happening.

Insurance is the financing pool of the rebuilding of property and loss of income after a loss. Insurable risks are uncertain and they are homogeneous and measurable.

Insurance companies underwrite the risks, collect the premiums and pay claims.

Marsh is not an insurance company. We are a broker and we advocate for our clients. We have been in San Francisco since 1916 and we are a very large broker in the world.

Mr. Tony Moraes addressed the Working Group: I will speak to you on property risks. People come first especially when speaking about catastrophes.

Insurance companies typically pay for uncertain losses and when things start becoming more certain they are going to start to pull back.

When we talk about the threshold for certainty we have to ask ourselves, is it a 1-in-100-year event, is it a 1-in-500-year event? I can't tell you at this point what that threshold is; what I can say is when insurers are modelling their own portfolios they typically measure risks for between a 1-in-100-year event and a 1-in-500-year event. As you drop below that 1-in-100-year event insurers start to say, I'm now getting into areas of risk that are becoming more and more certain. Certainly, in a 1-in-10 year event your premiums are going up.

Insurance contracts are typically written on an annualized basis. There are some insurers that are dipping their toes into catastrophic risk; earthquake, flood, wind and others on a three-year basis.

Group Member Northcross mentioned that there are insurance carriers on liability on a claims-occurred basis who are picking up multiple-year coverage.

Mr. Moraes stated that from a first-party insurance perspective regarding property risk we are talking about one year at a time.

Chronic flooding is starting to occur more and more as climate change unfolds and sea level rises. Insurance companies are in the business of covering fortuitous flooding (unforeseen events) as opposed to expected or chronic flooding events.

AIG and a number of other large insurers are employing climatologists to help them gauge potential risks.

The larger question is; how are government agencies driving building codes? Along the Louisiana coast you see that shoreline homes are all elevated to deal with the water levels expected during storm events. Insurance companies are attaching very high deductibles for expected flooding if they issue any insurance at all. Highway 37 is an uninsurable risk.

Most Cat (catastrophic risks) are partially insured anyway. Government subsidized insurance is issued when it is difficult to analyze risks or there is little or no documented loss history as we saw in the 9/11 terrorist's attacks.

If there is certainty of loss however and there is a societal benefit then there is a need to insure until mitigation or elimination of risk can take place. In this case sea level rise would fit into this category. The National Flood Insurance Program was implemented to cover some of this risk. Since 1978 the NFIP has paid out $51 billion in losses and is $24 billion in debt as of January 2014. We have seen a scaling back of coverage in this federal program.

Ms. Schaefer stated that a lot of these losses are along the coast. If you eliminated Alabama, Louisiana, Mississippi and Florida none of this would have happened. California is a net payer into the program. In the Bay Area for every dollar paid in claims; policyholders in the Bay Area have paid in about $10.

Mr. Moraes explained that insurance companies are covering replacement value of properties as opposed to the market value of those properties at any point in time. NFIP indemnifies you for actual cash value. On a commercial basis, the deductible is usually around $1.5 million so it is very high and the property has to be in what is considered a high-hazard zone so a 1-in-100-year area.

Mr. Ed Morales presented the following: I will be talking about moving from first-party issues or landowners/facilities to third-party liabilities associated with potential environmental impacts resulting from sea level rise.

Former landfills, publicly-owned treatment plants and industrial plants containing hazardous materials present potential environmental impacts due to rising sea levels and flooding.

The Water Board has been concerned about this issue particularly with the number of contaminated sites both closed and open. Traditionally when a contaminated site is closed the contaminants remain on site. These compounds can find their way into the Bay when flooding occurs.

Contamination from these types of sites could lead to third-party claims for mitigation or clean-up. Some of these claims could include bodily injury, property damage and natural resource damage.

Pollution insurance covers some of these risks and they are available for now. Traditionally pollution coverage equates into claims made. Claims made means that the claim has to be made within the policy period. There are occurrence policies where the event may have occurred in the policy period but you don't realize it until sometime after that. There are pollution exclusions in property insurance coverage.

Mr. Lane mentioned that certain measures are being taken by clients in addition to the risk transfer and insurance coverage. Insurance companies are doing a number of things to help clients mitigate their risks. For clients with property in flood hazard zones business continuity planning, business interruption and contingent business interruption quantification and property loss control are important.

Emergency response and crises management planning is flood driven and forensic accounting services are needed to determine what was damaged and what is salvageable. Many companies are putting this into effect well in advance of an event.

Ms. Schaefer inquired about a Geological Hazard and Abatement District (GHAD) operationalizing their flood risks by putting everyone who is at risk in a room and finding out how much they are spending on premiums.

They would then pool all those premiums and build whatever protection is needed. She wanted to know how we could make this happen because everyone is on their own and insurance companies do not cooperate in this manner. How do we operationalize our flood risk management at a community level?

Mr. Moraes stated that this is a big question and in the U.S., you have things like FEMA and FIP and that is forcing those at risk to limit where they build if they wish to be protected. Insurance companies are requiring certain customers to design in flood protection measures before they are issued coverage. If those being insured do not abide by the insurance carrier's best practices then their coverage is going to be very high or they won't get insured at all.

Would it be possible for lenders to start requiring flood insurance driven not by FEMA maps as they stand now but by Marin or San Mateo County's flood zone inundation maps for a two or a four-foot rise in sea level? And what if the people who write insurance and underwrite loans in Marin County looked at these maps and said everyone in a two-foot area has to have flood insurance? Are you seeing any sort of movement in the world where coverage is being required even though it might not be in a currently designated flood area?

Mr. Moraes answered that insurers will not insure a risk that they consider chronic even if current maps do not label the risk as such. This is why climatologists are now employed by insurance companies to size up these potential risks. The market reaction is already happening.

Lenders are concerned about these risks and they will put into their contracts requiring FIP coverage if you are in a high hazard flood zone.

The insurance companies for the most part still go by the flood maps. They still go by flood zone determinations. If it is in a 1-in-100-year flood zone there is an automatic $1.5 million deductible. If it's in a 1-in-250 zone the insurance companies have all this leeway that they can apply different deductibles on.

Ms. Schaefer commented that FEMA has been the elephant in the room. Everyone has gone to the FEMA maps and in the last four or five years you have Cat (catastrophic risk) modelling companies that are doing their own modelling and selling their own modelling products. That is becoming a big market. So, these insurance companies recognize the shortfalls with the FEMA maps and are now either their own modelling or they are purchasing these other Cat models for use in determining potential risks.

So, FEMA mapping is not going to be the be-all/end-all that it once was. And potential sea level rise is being accounted for in the commercial mapping for commercial products.

Group Member Battalio added that the current bathtub type maps under-represent the risk due to erosion and coastal response to sea level rise. California is a really good example of this. The modelers are missing a major component of risk.

Chair Wasserman joined the group and stated that we don't want to talk about retreat.

Ms. Key stated that we are seeing a similar scenario around fire and fire insurance. Homeowners are trying to work with insurers to better account for some of the hardening and recommendations that are not currently captured in the models that are being used now.

We are looking at the potential this might have in changing insurance coverage if these measures are taken into account.

Mr. Moraes noted that insurance companies are incredibly reactive. They do their best to be proactive but then you get a black swan event that pulls the data in one direction and an example of this is 9/11.

Ms. Chris Choo of Marin County observed that we are not very good at modelling things like a flooding of the Napa River in conjunction with sea level rise. The full brunt of these factors taken together is not currently captured by the modelling.

Group Member Battalio stated that we can do this type of modelling but it is not currently being done.

Ms. Schaefer explained that there are two components as to why this is not being done. One component is not knowing what your flood depths and locations will be and knowing what is in that flood space. The properties and characteristics of the existing infrastructure in these flood areas are not adequately catalogued and accounted for in current risk analysis modelling.

Group Member Chad Spitler asked the group to remember that insurance companies can be buyers of green bonds. Insurance companies providing coverage protection for properties that are going to be protected by a seawall, for example, are also potential buyers for these green bonds that will be issued to construct these different measures.

Mr. Moraes noted that some of the larger, more sophisticated insurance companies are going into the bonds based heavily as an alternative to buying traditional re-insurance and purchasing Cat bonds.

Ms. Nuin-Tara Key of the Governor's Office of Planning and Research addressed the Working Group.

5. **The Integrated Climate Adaptation and Resiliency Program (ICARP) of the Governor's Office of Planning and Research (OPR): Discussion of Use and Applicability – to be led by Nuin-Tara key of OPR.** Ms. Key stated that she managed the Integrated Climate Adaptation and Resiliency Program for the Governor's Office of Planning and Research. I will give you a quick overview of the program and where it evolved from and how we are thinking about our adaptation work within the context of the state's climate change portfolio and framework around climate. I will also discuss ICARP's focus around adaptation financing. We are interested in a conversation around potential opportunities for connecting the work that we are doing with the work that is happening here.

We talk about our work as being a three-pronged strategy. We have our mitigation side, reducing emissions and preparing for the impacts of climate change or adaptation work and then our research side.

The state's adaptation programs and efforts are considerably early on relative to the work we have done on the mitigation side. The *Safeguarding California* document is the mechanism that we use to track our state's efforts. We look at the intersection of our local and regional partners and local activities in helping to support the state's adaptation strategies.

We also invest in tool development and research to advance and support research on climate adaptation.

We have a set of adaptation principles that were established through Executive Order B3015 that requires state agencies to now consider climate adaptation in all planning and investment decisions.

These principles were laid out as the principles that should be guiding that process. We have worked to establish guidance documents that provide guidance to state agencies on how to bring climate and adaptation strategies into their work. These are the principles directed to state agencies.

We include things like prioritizing natural green infrastructure, protecting the most vulnerable, integrating mitigation and adaptation, coordinating with local and regional partners recognizing that adaptation efforts need to happen locally. We really need our local partners to be part of this.

DWR has done a pretty extensive amount of modelling work to understand climate impacts and looking at their resources and different structures. Caltrans is doing a series of tests on adaptation measures and each will have a vulnerability study pertaining to the state structures.

Agencies and departments within agencies are at different levels regarding their familiarity with these issues.

Safeguarding California is a strategy that recognizes the importance of state activities, local/regional activities and then also research and decision-making tools and information.

So a big question is, how do we connect these? There is a need to try to better coordinate and align these different efforts around our adaptation work. This needs to be done with an eye towards implementation. So how do we support implementation through better coordination?

At a very general level that is how the Integrated Climate Adaptation and Resiliency Program came to be which was established through Senate Bill 246 out of Senator Wieckowski's office.

It called for the creation of ICARP to be housed out of the Office of Planning and Research with the goal of trying to better align and coordinate state efforts with local and regional efforts; again, with an eye towards implementation.

There are two key components to the program. The first component is the creation of an advisory council. We have convened that advisory council. We have 21 members and there are state agencies, local and regional jurisdictions, special districts, tribal governments as well as community-based organizations, non-profits and utilities. PG&E is on the council.

The council is an opportunity to have dialogue on, where are there opportunities to better coordinate and where are there key leverage points where if we focus our attention we could really move local implementation forward?

Adaptation financing and the question of adaptation financing and funding quickly rose to one of the top challenge areas but also potential opportunity areas for us.

The other component of the program is the creation of an adaptation clearing house that will be housed through OPR's website. We have a place-holder page on our site now but we are really looking to build a dynamic site that can help provide resources and support community practices around adaptation and resiliency.

In the legislation, there are two cross-cutting objectives that are called out through the program. One of them is ensuring that we are advancing equity and environmental justice within the context of our adaptation work. The second is supporting an integrated approach to climate change. We are trying to better coordinate our adaptation and mitigation efforts.

Through the clearing house, we are looking to build a more dynamic site that will include resources to science and research. When the general plan guidelines come out, those will also be linked through here.

We are developing a series of case studies that provide some on-the-ground lessons of what adaptation implementation looks like on the ground and also linking this to funding.

The council meets quarterly and we had our second meeting in June. The scope of work that the council brought forward was, one, the need to develop an adaptation and resiliency vision. The council felt it was very important that we establish what is it that we are working towards and by what time period? What do we want a resilient California to look like in 30 or 40 years?

We are also developing a series of principles to guide how we want to achieve that vision.

The second component is that it is very clear that a lack of consistent criteria is a tremendous barrier to local implementation of adaptation planning.

We have also been doing a fair amount of work around sea level rise and connecting the Ocean Protection Council's update to the sea level guidance work that they have been undertaking.

The California Storm Climate Assessment is the fourth assessment done in a series of studies. One of the research projects that are being currently funded is the local government commission and ICF have been working in trying to identify institutional barriers to implementing adaptation strategies and what the financial barriers are.

One of the questions pertained to what local jurisdictions are using to fund their adaptation efforts and the majority of respondents told us that they are using general fund money, state agency grants, foundation money and to some extent federal grants, but they are really using these one-time, potentially limited funding sources to implement adaptation efforts.

Many fewer of the respondents are using other types of financing like taxes, fees and other sources. These respondents do lean more towards coastal committees and jurisdictions.

The projects that have been discussed range from small endeavors to very large infrastructure projects. It was across-the-board in its diversity.

We have some key take-always when it comes to funding challenges. We have some funding but it is insufficient to meet our needs. The second group is getting to the staff capacity and institutional capacity to apply for funding or look for additional funding. Some of the challenges that local institutions are facing are more institutional in capacity building rather than just a lack of funding.

The grants that we are referencing here are primarily federal and state grants.

Mr. Goldbeck added: So, for example, right now the State Coastal Conservancy has done a series of grant rounds for local governments and special districts and the like that do some of this adaptation planning and construction.

Commissioner Sears noted: And some foundations feed money into the goals for the Conservancy.

Mr. Jeff Rhodes asked if the local grants tend to focus on actual brick-and-mortar things or are they used for planning and other support activities?

Ms. Key mentioned that her response to this question was speculative. My understanding is that there is more funding available on the planning side currently than there is for the implementation and infrastructure side.

Group Member Battalio stated that, as a practitioner, his impression was that this study was looking at the institutional framework deficiencies. There really is not an office of adaptation other than what OPR is doing. So a lot of the money is going towards planning and raising awareness and making these maps and stuff like that.

There is probably a need to expand our capacity is where this is coming to.

Ms. Key agreed and noted that this is another component of this study that would not be discussed today. We are also addressing what you just mentioned; that is, how do you build capacity within institutions to bring that vision into the work that you are already doing?

We heard that jurisdictions do not have required matching funds especially from the smaller entities. Providing matching funds can be a very big challenge for them.

Those that responded to this survey include cities and counties and regional organizations. I am not sure that special districts responded.

The variability in climate projections is a factor and what that means to the financial needs and costs of what implementation actions will actually cost. This variability is making people feel unsure about what the actual costs will be in the coming years.

There is limited guidance on the integration of adaptation and limited flexibility in existing funding sources. We are trying to figure out how to bring adaptation considerations into our existing funding sources. There is a need for additional and new funding but within the context of the money that we are already spending; how do we better bring adaptation considerations into how we are deciding to spend our money?

There are a large number of different funding pools and the state does not have one way to aggregate or know where all the grant programs currently exist. There isn't one spot for, let's say, federal grants. There is not one repository where you could find that information.

One is just knowing, what are all the funds that are going out in grants? The second is that much of the funding has to go towards emission reductions. That is the legacy of how much of this funding was established which is not to say that there are not opportunities to bring adaptation in.

We (OPR) have not been keeping track of the calculations for adaptation planning funding on a county-by-county basis. It is something that has come up in our advisory council which means it is a question of what will it cost to safeguard all of California by 2050?

Group Member Northcross added that one question should be; what is a reasonable annual planning cost for each county? You then have to look at funding sources to carry out this planning.

The "Funding Wizard" source of funding is live and it is posted and maintained through the Air Resources Board. We have already worked with them to build in adaptation funding.

SB 379 which was passed two years ago requires that jurisdictions include climate change as part of local hazard plans. It requires adaptation considerations be integrated into the safety element of a plan. There is some flexibility in how this is done but it is a requirement. OPR will provide options on how to meet SB 379 requirements.

In our advisory council, we have had a fair amount of discussions on how do we support and provide resources and information to local jurisdictions around financing and funding generally and specifically; how do we help to provide resources that get at some of the institutional and capacity issues that we are hearing?

The gold standard of the requests that have come in is, we want a live person to talk to. We want to be able to pick up the phone and call an expert and say; this is the type of project we are trying to implement, where do I go? What do I do?

OPR does not have that capacity on the staff. We are trying to provide a financing hotline for local jurisdictions. How can we best use the resources that we do have through the adaptation clearing house to try to provide the resources? Our advisory council is interested in developing or having a series of case studies developed. There has been a fair amount of discussion around the limited utility of case studies alone.

We are trying to figure out how we can provide resources to these jurisdictions. So we are looking at developing a series of case studies that can demonstrate innovative planning.

The other piece that we have also been exploring is how do we map out and communicate a general landscape; what the general landscape of funding and financing options are. We are looking at what is the framework of how we talk about the different options and what the mechanisms are.

There is not a member from BCDC or this group on our council. That is something that we would be interested in; that is, trying to figure out how we could coordinate or connect our efforts through ICARP and the council and this group.

I have been talking with the San Francisco Federal Reserve Bank about hosting convening workshops or sessions; we are looking at doing a series of regionally-focused convenings that would bring together local jurisdictions, public agencies, grant funding and existing funding sources to bridge the cooperation between different agencies.

One of the key components of these convenings with the Federal Reserve Bank has been focusing on opportunities to invest in low-income and disadvantaged communities given the increased risks all communities are already facing and dealing with the impacts of climate change. How do we make sure our investments are reaching the most vulnerable?

Senate Bill 1 is the adaptation planning grants program. It is $20 million over three years for adaptation planning specifically. We have been working with them to figure out how we can, through the ICARP program, track and better understand what are the lessons learned from that grant program so we can better inform other state grant programs on how to bring adaptation into our programs.

Ms. Schaefer made suggestions for case studies. One of them is finding a way to monetize the risks and using that to buying down the risks. In the nine-county Bay Area the money that is currently going into the FEMA Flood Insurance Program is on the order of $27 million a year. If you took that money for just two years and set it aside and said, we are going to pay every claim that has ever been paid; you would have more than enough money and then from that point on you could have $27 million a year that we could invest or do something with.

Oftentimes these case studies talk about things that they did but then when you as an engineer want to know, what were the numbers that they used to make this work; what were the components of it – that technical data and detail is often missing and not available. So you can't translate what they may have done in one location to something you might want to do in another location.

Having that technical data that is engineering speak would be very helpful when reviewing these case studies.

Chair Wasserman stated that he would actually broaden the question to include a number of areas where coordination might take place. One suggestion is to set up a meeting with BCDC to talk about what you are doing overall and to talk about what BCDC is doing with moving towards the regional adaptation plan here. A critical element is financing.

Group Member Battalio mentioned that the Ocean Beach Master Plan is one example of a sea level rise adaptation program that is pretty far along.

Group Member Northcross mentioned the 24-year timeframe to implement measures to deal with sea level rise in Marin County. We must admit that 24 years is a really long time and the entitlement process is daunting and that is not a heavy enough term to describe this.

One suggestion for OPR is to look at the entitlement process for implementation called climate change infrastructure because we have been told to prepare for a two-foot sea level rise by 2050.

Under current implementation processes we will have in the best-scenario situation our two-foot sea level rise in place by 2042. We are cutting it really close right now.

OPR or somebody should look at how the entitlement process could be improved for climate change infrastructure because we could finance this; we could do this. The question is there are no entitled shovel-ready projects available for a generation. This is a challenge.

Chair Wasserman mentioned that Bay Area Council and the Southern Valley Joint Venture have obtained funds to start studying this multi-agency approval problem that is a cause of delays.

Commissioner Sears noted that there are a number of pilot projects that could be implemented quickly if funding could be scaled at different levels, so that we could get some pilot projects on the ground as demonstration projects while we are moving forward on the larger planning efforts.

Ms. Key announced that the Board assessment will be wrapped up and finished next July or August. That is when all the final reports will be publicly available as a package. Some of the reports may be coming out before then but it wouldn't be before the end of this calendar year.

6. **A Discussion of Future Meeting Topics and Schedules.** Chair Wasserman moved on to Item 6 and mentioned that a meeting was scheduled for August 3rd.

Mr. Goldbeck stated that he knew a meeting was scheduled for August 21st and this probably meant that an August 3rd meeting would not be held.

Chair Wasserman stated that Executive Director Goldzband had talked about the September presentation being on Prop 218 and stormwater districts, flood control districts. Flood control districts are a potential financing source and currently it is very difficult for them to do that. They have been working on a way to put them more in the category of utilities for approval of assessments which would make it easier.

Group Member Battalio mentioned that he was curious about would it be possible to reevaluate the market value of private property and public infrastructure assets based on future risks? Coastal property values are not incorporating the future risks that we are talking about and the cost of protection or other adaptation measures.

This could be helpful in facilitating land use changes and landward realignment. Private property rights together with unrealistic expectations create a potential for a market crash.

Group Member Northcross stated that with the folks at GASB and FASB there is a call for asset retirement obligations which means that if you own the landfill and you have to retire it and close, it you are supposed to show that liability on your balance sheet. If you are relicensing a dam through FERC you need to show something for the cost of relicensing it. What if GASB came in and said, EBMUD you've got this beautiful wastewater treatment plant in West Oakland; it is going to be underwater by 2050 and not functional – you have to show that as a liability on your balance sheet.

That goes back to the cram down idea; if there is a cram down because of FEMA, bond issuers or insurers and lenders or GASB, FASB generally set the county principles – we have to start showing your sea level rise as a liability on your balance sheet. You have a gut-level impact that is quantifiable and you have people paying attention.

Group Member Battalio added that his understanding was that the SEC requires asset retirement obligation to be considered for private corporations. I don't know if it is really required for other entities.

Chair Wasserman mentioned that even though it is an SEC requirement how it applies to rising sea levels is unclear. One of the reasons that many corporations are actively studying the risks in what they can do will not say word one about it, is because they don't want to be put in the position of having this go on their balance sheet.

Group Member Battalio added that we know things are coming but people have not taken that to heart in terms of their expectations via market valuations or other activities. It is bad news but if we want to avoid a bigger problem later it might be worth looking at.

Chair Wasserman agreed and stated that he thought it was a topic worth exploring but it could not be put together for the August meeting.

Group Member Rosenstiel stated that if we are talking about accounting and disclosure then one of the groups that we might want to invite in would be the Sustainability Accounting Standards Board which is located right here in San Francisco, and they do some very interesting work in terms of identifying the material environmental risks as well as social and governance risks.

The ones that are material to the long-term performance of the company and they are trying to get disclosure into the financial statements. They are doing it through the backing of big institutional investors who are saying, this is information that we want to know about.

We also have the task force on climate risks disclosures would be another topic of interest. The TCFD is the broader disclosure mechanism and SASB is incorporated into their recommendations. It is becoming the premier framework by which companies are being asked to disclose climate-rated risks.

Ms. Schaefer stated that she could give a presentation after September 30th to the changes to the FEMA Flood Insurance Program.

Chair Wasserman suggested that a more in-depth presentation of how other countries have done flood control and have paid for it would be of value. A lot of them are going to be public funds but even that could be interesting. There are a number of measures that other countries have taken that would be worth being familiar with and discussing.

Chair Wasserman stated that an August 3rd meeting would be feasible after seeing a show of hands of who could attend on that date. He preferred to have the meeting at 375 Beale for consistency's sake.

7. **Adjournment.** There being no further business, Chair Wasserman adjourned the meeting at 12:26 p.m.