

# San Francisco Bay Conservation and Development Commission

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February 22, 2018

**TO:** All Financing the Future Working Group Members

**FROM:** Lawrence J. Goldzband, Executive Director (415/352-3653; larry.goldzband@bcdc.ca.gov)  
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**SUBJECT: Draft Minutes of February 1, 2018 Financing the Future Working Group Meeting**

1. **Call to Order.** The meeting was called to order by Chair Wasserman at the Bay Area Metro Center, 375 Beale Street, Ohlone Room, First Floor, San Francisco, California, at 10:38 a.m.

2. **Roll Call.** Present were Group Members: Chair Zack Wasserman, Commissioner Kathrin Sears, Commissioner Alex Zwissler, Member Roger Davis, Jeff Holzman, Michael Papanian and Paul Rosenstiel.

a. **Not present were Group Members:** Commissioner Geoffrey Gibbs, Commissioner Jennifer Lucchesi, Commissioner Aaron Peskin, ECRB Member Robert “Bob” Battalio, James “Jim” Cervantes, Justin Cooper, Mark Northcross and Chad Spitler.

b. **BCDC staff members present were:** Executive Director Larry Goldzband and Adam Fullerton.

c. **The audience included:** Commissioner Pat Showalter, Kathy Schaefer, U.C. Davis, Joe Tootle, ENGEO, Nuin-Tara Key, Governor’s Office of Planning and Research, Paul Okada, San Mateo County, Bob Spencer, Urban Economics, Brian Benn, Environmental Financial Solutions, Jeff Rhoades, Resilient Shore, Chris Choo, Marin County Public Works, Michael Kleeman, U.C.S.D. and Maureen Parton, Staff to Supervisor Sears.

3. **Approval of the January 4, 2018 Meeting Summary.** Chair Wasserman noted: We did receive a summary of the last meeting. Does anybody have any comments on it?

Commissioner Showalter commented: The Summary does not list that I was here and I did attend the meeting. And it should be DWR when we were talking about the Flood Futures Report. In the summary it has it as GWR.

Chair Wasserman continued: Thank you. Does anyone else want to compete? (Laughter – no other comments were voiced) Seeing no objections the minutes are approved.

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**FINANCING THE FUTURE WORKING GROUP MEETING SUMMARY**  
**February 1, 2018**

4. **Discussion of Possible Topics for Future BCDC/Public Workshops.** Chair Wasserman announced: This document is a framework based on our previous discussions of what we want to focus on.

Executive Director Goldzband was recognized: One of the difficulties in helping to staff this group is that we have discussed a number of different topics and we could have picked eight to ten probably.

The key in picking these three is that there is a reason that each of these three are here. We need to discuss if these are the right three things and are they in the right order?

The first one when we talk about uncertainty about what is going to happen; the question then becomes – what assumptions are there and how can we help there be a robust market? Or is that even the proper term for what we are trying to do for actual financing of projects?

How can projects be financed and is there something that the state of California can do to assist in that?

The second is focused somewhat narrowly on the actual Bay itself. That is because the Bay is different than the open coast. Given that even along the Bay what happens with rising sea level will not be uniform; should we then take a look at how infrastructure is actually built?

If you can get financing for something; should you get financing for something that may not be structurally sound? Should the state, should the local government, should the regional government propose some kind of state, local or regional standards for construction that faces rising sea level issues?

Not unlike what the state starting doing after the Sylmar Earthquake of 1971 when it started promulgating earthquake preparedness or earthquake-prevention issues within building standards.

The third part is looking at state government and their role. One of the things that has been pretty clear to BCDC is how state government can be more responsive to sub-regional, local and regional adaptation projects that require funding. This is not meant to be a criticism of the way the state works because BCDC is part of the state. The question is, can the state be more strategic in terms of how it provides grants, information and all sorts of other kinds of resources to projects to local governments and the like.

It is three different legs of a stool. The reason that Michael Kleeman is here today is that he helped me think through how we actually describe this. There is no pride of authorship or editing on the part of either of us and we are more than happy to engage everyone in dialogue in a way that Chair Wasserman proposes.

Chair Wasserman continued: Larry and I did review this material. These are legitimate and in certain respects important topics and worth talking about today.

We need to be very careful that we don't get distracted from the primary function of this working group which will lead to Commission workshops. That primary purpose is the third leg of the campaign. The first leg is, what can we do to adapt to rising sea levels to protect our natural and built environment.

Second is, what should we do given restricted resources and unintended consequences? And third, how are we going to pay for it?

I don't want us to lose sight of the fact that when we move to the next step which I hope will be in April which is the Commission workshop level; we're focusing on how we are going to pay for it influenced by things like these issues?

In terms of next steps I would add a fourth which is an annotated listing of existing and potential sources which we have talked about through our previous meetings. I don't want to lose sight of where we are really going.

I will now open the meeting up to discussion.

Commissioner Zwissler commented: Being in the Rising Sea Level Working Group, I understood what we were doing there which was to help bring issues and policy changes to the Commission.

What are we going to be workshopping when we bring this to the Commission other than; here is Mark Northcross' list of things that we can do. I am not sure what it is that is going to happen. If I can understand that a little better then I feel like I could help answer whether this is the right stuff.

Executive Director Goldzband replied: The way BCDC handled workshops the last couple of years has been to have questions come out of working groups and workshops. It has worked well.

These are fundamentally different for a couple of reasons. First of all, they are far more technical than rising sea level in general. Even to a great extent some of the Bay fill issues which are technical but you can get a group of 60 to 80 people in a room and they can discuss it and work through the issues.

I am not sure that you can get 60 to 80 people in a room to talk about the uncertainties associated with either the income assumptions or cost of funds over time. And I get that. What I would want to use the workshops for is to try to figure out how we can get as many people as we can into the room who are interested in this who can then allow us to move forward based upon their input.

I look at the first workshop for this as being a conglomeration of people who have already talked to OPR and who Michael can bring in and who Paul and Roger can bring in from the finance side and say, okay – here are three questions, how do we even go forth and figure out the answers to these question? We don't know how to do that because that is not what BCDC does.

BCDC staff can help figure out the answer to questions about the appropriate level of Bay fill or the sub-tidal habitat issues associated with dumping dirt on something. We don't have the ability to do that with finance because that is not our gig.

Commissioner Zwissler asked: So why are we bringing the workshops to the Commission if we don't have the ability to deal with it?

Executive Director Goldzband answered: Well I think that the first workshop is to have a group of people come in and comment on these questions and say, here is how you figure out the answers to them.

Chair Wasserman interjected: No. (Laughter)

Executive Director Goldzband continued: That is how I looked at this because I don't have the ability to answer these questions and neither does BCDC.

Working Group Member Michael Papanian commented: In terms of output and maybe for a workshop one of the charges we had was that this is a really, really big problem and it is going to cost a zillion dollars; what are the creative possible ways we could pay for this?

We have talked about a lot of things that in today's environment may seem realistic or unrealistic but they are ways you could raise a lot of money to pay for some really big projects.

That would be a very good service that we could provide for people now and for people going forward. This would be a kind of reference point as there is an increasing recognition of how much we are going to have to spend to deal with this.

Some of the things on here point to inter-relationships which is important. There is an inter-relationship between projects and the projects you finance and the projects that others finance and the impacts not just on that community but the impacts on adjacent communities.

More importantly, if you look at seawall solutions one of the things we heard on Friday was that you build a

seawall here the water is still going to go somewhere and you are going to impact the adjacent communities.

If the state is doing wonderful things helping pay for seawalls or somebody else, you've got a BCDC-wide potential problem if it is not well coordinated.

On your number one – one of the questions when you look at financing mechanisms is how do you relate climate certainty and climate uncertainty into the everyday decisions that are being made?

Commissioner Sears agreed: I want to agree with that. Our mission for this group has been to discuss the state of financing, what we need, what needs to be developed and what the impediments are. There is a lot to discuss.

Mike and I were at a seminar on Monday about insurance and risk-management resilience solutions and that went on all afternoon. It was very interesting and there wasn't as if there were answers and solutions but there was a tremendous amount of interesting conversations and interesting ideas.

It is very possible to put together a workshop on this issue where there is a lot of talk about these issues. This may be a bit frustrating because a lot of the messaging is that the market is not quite at a point where it is possible to have resilience bonds or we have insurance challenges.

The one takeaway I had from that seminar was that the insurance industry participants were thinking about these issues much more than some of the other insurance industry folks that we had talked to a couple of years ago with our Sea Level Rise Working Group and there is a lot we can do.

For these other issues, two and three, I also think they necessarily come up in the conversation about potential resilience management solutions. There was discussion about all of these issues.

We do want to actually make sure that we cover all of this because you can't do one without the other. I think it is a good list.

Ms. Kathy Schaefer commented: One of the things that has come out of our research at the Center for Catastrophic Risk Management at U.C. Berkeley is that risk is the product of risk and uncertainty. When you have things that are uncertain in both probability and consequences you have a mess and that is really what we have. (Laughter) The way that you work on wicked problems and messes is what you just said. You have conferences and move them around and bring in experts and you may not arrive at any definitive answer but what you strive to work towards a better understanding of the problem so that you can peel off aspects of the problem into a clear, well-founded, problem statement.

Once you have a clear, well-founded, problem statement then you have something that the staff and all of the folks here at BCDC can clearly work on. The research suggests that you may want to do both where you have these workshops where you admit going in that perhaps nothing is going to come out except everyone gains a better understanding of the problem and that you ultimately then work toward a suite of clear, well-founded, problem statements that you then tackle as you go forward.

The Center for Catastrophic Risk Management can offer services if you would like.

Group Member Paul Rosenstiel commented: I completely agree with Zack and the focus on where the money is going to come from or how to pay for it.

At the same time part of that answer is like question number two posed here about building standards. If government wants to ameliorate poverty it can give poor people more money. That's using tax money to solve the problem or it could pass a law increasing the minimum wage. That is not government money then. The private sector is paying for it. In a very simple way we can say either government pays for it or government regulates the problem by obligating the private sector to pay for it.

The concept of saying, building standards need to be made more robust is saying the private sector because it is getting benefit from being able to build along the Bay have an obligation to pay to prevent additional problems from arising because we now have more people living and working where we know we are going to have sea level rise.

At the same time we definitely need to catalogue and be creative about figuring out where the revenues might come from for a public sector solution. To think that it is going to be one and not the other we've got to think of both as requiring a revenue source.

When we go to the capital markets we need two things. We need somebody to provide capital and we need somebody to take on risk. Normally that is one and the same; the investor does both. When we talk about insurance it need not be.

The focus on finding somebody who is going to insure risk is different from finding the investors. If we are going to issue municipal bonds we are not going to get Swiss banks to want to buy the bonds.

Swiss banks are the biggest buyers of Cat Bonds which might be a very appropriate thing to be thinking about to pass on the risks.

Mr. Brian Benn was recognized: I would suggest expanding some of the elements in the questions you had in number one. In addition to external protections what new protections might be available? This falls in line with what some of these comments are.

In terms of workshops there are existing structures for risk financing and other ways of dealing with risk that are tried and proven. The costs of risk are yet to be determined. Those are huge factors as to the willingness of private sector participants to want to play.

There is a lot of work to be done to determine the feasibility of some of these structures and how you would structure them. One could with the information and knowledge would play and at what level, what would costs be and there are opportunities to design a framework that would be voluntary to drive adoption of a better set of risk-transfer programs, better levels of protection, combinations of public and private participation; in conjunction with that laying out to all of the constituents what are the choices we have?

If we are talking about critical infrastructure that you want to protect around the Bay Area for a very long term I think the steps inherent in that are identifying the critical infrastructure, looking at the long-term costs of maintaining, replacing ultimately those assets – there is fortunately now, there are mechanisms to require public entities to start identifying and accounting for these asset returns and obligations. This could be a line item that could be a

revenue source. Laying out an array of options for our constituents showing them where we want to be in the long term and showing them if they participate voluntarily in a certain level of risk transfer you get a credit towards some of the asset retirement obligation liabilities that are otherwise being protected.

There is this balance that is showing the broad spectrum of options. There is a lot of work to be done to identify the costs of those specific components but in terms of the structure of how one would set it up there are very tried-and-true ways to go about doing that combine a lot of these elements.

You can actually start delving into numbers and laying out some concrete examples that could lead to some productive discussions along those lines.

Ms. Nuin-Tara Key commented: Some of the work that we are trying to do at OPR on this topic is figuring out the problem statement but then also trying to lay out what are the roles and linkages between different public and private sector actors along the continuum and thinking about where the private sector can come in and where the public sector can come in and what relationship and combination looks like.

We also need to get into actual specifics. It is really helpful illustrating the problem and potential solutions but I think even just the mapping out of what's the relationship between actors and how do we incorporate climate and uncertainty into the work that is done by different actors whether it is insurance or whether it's developers would be really valuable and helpful for us to better understand the connections between those.

Along these lines the question of, how do we incentivize the upfront, incremental costs of development in a way that supports affordable housing but that also promotes resilience?

How do you get developers who do not have an incentive for the upfront, incremental costs to invest in those but in a way that also supports having affordability.

Thinking about what are the regulatory, policies or local building codes; those types of actions that need to include the financing investment decisions as well need to be discussed.

Mr. Michael Kleeman spoke: You have an interesting problem here. Many, many people will benefit and then the question is - who pays?

Years ago when Sprint used to be in Burlingame there center was right along the shore. Every time they got a super, high tide it flooded out the transformers and they eventually had to build a whole new one in Sacramento.

There is a whole question about what are you avoiding if you protect assets and who pays for it?

The second challenge you have is this problem with inter-generational benefits and discounting. When you deal with these messy problems usually one of the ways to get a handle on it is to look at analogues to get you part-way there.

The 1935 Earthquake stimulated the first building codes in California and the Field Act to protect school children. Death is a powerful motivator. (Laughter) And if you don't have that you have the boiling water problem.

This week USDS released the Third Uniform Earthquake Risk Assessment. It does a wonderful job of identifying hot spots, areas of risk potential and all of the items you have identified in terms of uncertainty, timeframe et cetera to motivate the behaviors you want.

You have what I would call a political/economic problem. You need to build a constituency and on the private side there are hundreds of thousands of organizations and individuals that you will be protecting if you do it right. You need to find out economically who they are.

On the private side if we were in a mature, national government this would be a national investment without a question. But then you need to build a political constituency to build the support. The earthquake analog is an extremely powerful one. It has many of the same dimensions and we have invested billions around it and have gotten a lot of people pissed off but we are all alive and safer because of it.

The University of California system at large is here to serve all of you.

Commissioner Showalter commented: On a simplistic level I see this as a huge, multi-disciplinary, communication problem. We have an awful lot of concern that is just kind of amorphous in our population.

What we need to do is get to that problem statement. That is really a huge deal; figuring out the proper research question is key. If you don't have the proper research question and you don't collect the right data then your process is not complete.

What we really are trying to do here is we are trying to meld the finance dollars which is something that most of us who don't deal with this in the scientific realm are wholly ignorant of. BCDC is quite good at gathering the scientific knowledge.

We have to bring everybody up to speed on what are the existent tools we have and what is the situation? We all need to be speaking with the same terms.

Ms. Chris Choo spoke: I do like this list of items. I wonder especially given the role of BCDC as a regulatory part as well as a technical part could be targeted to actually provide some guidance to projects as they are being developed along our shoreline.

Specifically looking at number two and three maybe not necessarily targeting construction standards but as permits are submitted, as projects move forward on our shoreline scaling somehow or assessing somehow what the benefits of the development are and raising fees or somehow incentivizing better practices along our shoreline so that new development does not make the problem worse or encourage people to feel safer about being someplace they shouldn't be.

On number three in terms of looking at finance maybe thinking about ways of being strategic about how we go after limited pots of funding that we are all chasing after and this comes from the perspective of having staff looking at applications looking at limited pots of money and thinking about ways to look at the bigger issue of finance and utilizing some of our very wealthy, private, local corporations in development and thinking about how to utilize these permits to create money to do more of this kind of planning.

Strategically as a region we need to think about how to finance this.

Chair Wasserman commented: One of the challenges of working on these specific topics, rising sea level, Bay fill, financing and education is there is a relationship between all of them. It is also important in each of those segments to focus on issues.

The quick answer to your first issue is, absolutely. That is largely what ART and Bay ART is doing. We need to do a lot more.

And that really comes out of the very beginning of the first workshops and even preceding them because ART preceded that.

Commissioner Zwissler spoke: On number two I would suggest construction standards would be one way that you could provide that lever for private investment.

There are probably others. What other rules or mechanisms, zoning or other tools thinking about broader consequences beyond just your specific development is something we should discuss.

Another way to re-frame number two is what is the list of those private levers or the governmental levers that could incent or help financing come along?

Mr. Bob Spencer commented: For the workshop it seems to me that you are trying to keep this conversation moving and we see that BCDC has been doing this so well for the last couple of years with ART and everything else is keeping this conversation moving while this region tries to figure out how to ultimately tackle it.

If you are going to have a workshop on this let's stick to financing; how can we most easily translate this wicked problem to the minds of public officials and others that are scattered everywhere? This is one of many priorities. How can you plant something in their heads that they can take away and keep the conversation going?

One way of doing that is a bit of a historical set up. I like the idea of the seismic standard analogy and we have tackled problems like this before. I have often used long-range transportation planning as an analogy. It is a network infrastructure system that is planned and funded at local, regional, state and federal levels and that is probably what we are going to be doing here.

You could also talk about analogies related to infrastructure investments in the Bay Area in the past. You could have a very quick presentation on the monies raised to seismically retrofit X number of Bay bridges. We raised X billions to build BART back in the 60s. In other words, give folks a comfort level that we have been there before, we have faced these large infrastructure challenges, we have raised this money before and we can do it again.

I would take a page out of Standard Financing 101 which is; how do we get local land owners to chip in, what is going to be needed to change policy to get local land owners to do the right thing and what do we need from a modelling standpoint to provide the certainty that the finance markets will need?

The risk insurance is going to be more on the edge than at the center. At the center is going to be standard, public-sector, bonding authorities that are going to be secured by standard, credit, market mechanisms to build stuff from green to gray.

You could set up that discussion. In other words you are giving more of a broad-brush, higher-level, we-have-done-this-before, here are the standard mechanisms and here are some innovative things that might particularly apply here.

Starting with more of a, this is an infrastructure challenge and we have faced these before, we have raised this kind of money before and here are the tools we've used; let's figure out what particular policy and standards are required and what are the next steps to get people to start paying for these measures.

Chair Wasserman added: I think Bob's comments are very helpful. I want to be clear that we are not talking about a single workshop we are talking about a series of workshops. We don't know how many and we will figure that out as we go.

A big piece of these workshops needs to help form one of the building blocks for the next wave – the education piece.

A big part of this is to by talking about finance in the context of immense needs we raise the visibility, we get out there more. People are talking more and more about another BART tube.

We actually need to get on the radar as a competitor to that. Protecting our existing transportation as well as some of our utilities from what we know is coming is at least as important as that traffic piece.

Having said that, leading to the emphasis of getting us more visibility on these issues; we know that we've got major problems with transportation. We know we have major problems with housing. Transportation is mostly public funding. Housing is mostly private, some public and a lot of regulatory and we've got to be in there with those.

In terms of big dollars those are the three legs of the stool; transportation, housing and regulation. There are certainly other issues that we care about but in terms of big dollars those are the legs of the stool.

What we start with is framing along the lines that we have just been discussing but leading very quickly to coming back to that list of what methods are there out there? There are some hybrids that we have talked about in this group. When you talk about Mello-Roos, geological hazard abatement districts approaches, enhanced infrastructure financing approaches which are all paid for by the private sector. Most of those have only been successfully applied to bare land.

We are going to have to frame it and educate people that it is going to have to apply to development. A lot of this is around education and it is based a little bit on fear and the huge cost of figuring out how to adapt to it.

We then have to talk about concrete ways we have done it in the past and it can be done. From my perspective that is really where we are going on that.

Mr. Rhoades commented: The key issue here is being able to reach people and motivate them. The analogy of the boiling water and the lobster is a good one.

We need to focus on problems that people face today that stand in for this greater issue. The other issue is flooding.

Flooding is something that folks are going to immediately feel the impact from financially as flood insurance rates go up.

If we are looking at solutions to the flood problem we are creating a stand-in for the ultimate issue of responding to sea level rise.

When we have reached out to various different groups particularly disadvantaged communities their eyes glaze over when you talk about sea level rise. But they are right in there when you talk about flooding. And they are right in there when you talk about seismic risks because those things are things that can affect them immediately.

When we start to solve flooding problems we are creating the institutional structure and we are creating the infrastructure improvements that are part of a grander strategy of addressing adaptation to sea level rise.

The message here ought to be how do we utilize the immediate concerns as a way of getting to long-term goals?

Ms. Choo commented: One thing I would add is that flood risks are going to impact quite a bit of our infrastructure all at the same time and in a way that will paralyze a lot of areas.

One aspect of this might be to think about some of the existing projects that are underway including BCDC's Regional Transportation Vulnerability Assessment is starting to think about some of the infrastructure that needs to be protected but also will serve as a de facto protection for communities behind it.

We have been looking in Marin at Highway 101 and how that might serve as protection for everything behind or west of 101. As we start to look at some of the things that we've already built on our landscape that need to function for all of us in the community we have a way of framing that in terms of public infrastructure and in terms of thinking about how start combining finance and risk and the need to re-evaluate and frame this on a grand scale.

Group Member Paparian spoke: Several of the comments have focused on communications; how we communicate to a reluctant population that there something that needs to be done that is going to cost them money but they are not going to necessarily see the results until the next generation.

I really like the suggestion of bringing some of the expertise of the U.C. system to talk about how do you communicate in a way that resonates?

On the political side of things the arguments that are absolutely the way to win the publics' support are absolutely wrong and there are different ways to communicate things that will resonate with people.

There is expertise that may be brought to bear on this. How do you convince today's population that they should pay for something that is going to benefit the next generation?

If you framed it right I think you would get an amazing workshop with a lot of interest in this.

Chair Wasserman added: But that is actually a whole series of workshops and that is the next wave. We have talked about the education and that really is communication.

Group Member Paparian continued: How are we going to communicate about the financing? What words should we use?

Chair Wasserman agreed: I absolutely agree but I don't think it is part of the finance. I'm not even sure it is the primary focus of any of the finance workshops because right behind this working group is the education working group which we might re-label education communication that is going to do the same thing and we will bring in academics, political consultants and we will bring in non-profits that are doing it.

Group Member Rosenstiel commented: It's one thing to get people to agree that a problem needs to be addressed. But then when you tell them that they have to pay for it they stop agreeing that it is a problem. (Laughter)

We are here thinking about how to convince people that they are facing a problem. Transportation people don't have that problem. We still can't figure out how to finance transportation.

Look at what happened to the governor trying to get an increase in the gasoline tax which had not been raised in over two decades; he had the support of the business community and the Democrats and it took him three years to do it and he got it through the Legislature by one vote and now we might have a referendum on it.

The problem is the public says don't make me pay for it somebody else should pay for it. That is real in that people understand that the money is going to come out of their pocket and they don't want it to come out of their pocket.

A very important part of thinking about identifying revenue sources is in some ways it should be the last thing because you've got to build the case that we have to build this. So then when you surprise people and tell them that they have to pay for it they have already bought into the importance of the project.

In some ways the communication or the education piece has to come before our piece.

Chair Wasserman commented: That is a very legitimate issue. The fundamental reason that we didn't do that is that how you finance needs to be part of the communication package. So if you did communication before getting some handle on that it will be a problem.

Group Member Rosenstiel continued: That is why that when you think about financing mechanisms you've got to tie them to people really understanding the benefit that they are going to get from the project.

Chair Wasserman added: What it does and why it is necessary and why they should be scared. Yes.

Group Member Holzman commented: Coming here you always hear the magnitude of the problems and the challenges of talking on ways to handle it. I wonder if I am thinking about this too narrowly and coming back to what this group was asked to do. I feel we were asked to provide the service of cataloguing what is out there, identifying the gaps and identifying the problems and then figuring out how to communicate what some of the next steps might be that we have to do from a tactical, short-term, we-can-do-this-level or from oh-my-gosh-we-need-to-start-thinking-a-little-bigger on some of these other things.

I do feel that we need to get into how do we convince people that this is the right thing to do but this is about getting people up to speed on what we've learned over a year and a half.

Is that the idea of the first workshop? Is it that education piece and communicating what has been done in the past and where we are today and some of the things that are necessary to go forward or is it getting into convincing folks and educating folks that this is a big lift that has to start coming?

Chair Wasserman responded: I think the first workshop is for financing the future keeping in mind education is following behind. It should be on magnitude, types, history; how you package that for the first one I am not sure.

I do think that probably at our next meeting ought to focus on how we see framing that for the first three workshops. We are almost there.

Executive Director Goldzband added: This has been great for staff because we are getting to the point where we can hear what you want to do and that is perfect.

What Zack just said I must admit reminds me of one of my favorite movies; the Sting. You will remember that what the director did is he separated the movie into three or four different parts. The second part was the set-up.

What I am hearing from you all is that the first workshop is the set-up meaning how you actually frame the issue and that is the communication piece – the framing of the issue with regard to what the finance piece is and how you can then create a discussion among the people about whether we accept as a group and make sure that we understand that context and then move forward from there.

Is that sort of what you are suggesting?

Chair Wasserman answered: Yes.

Executive Director Goldzband continued: Paul's two comments sort of bracket that. I wanted to make sure that this was okay.

Group Member Davis share an observation: There has been a recent development in this whole area. I am referring to the lawsuits that have been brought against the oil companies by various cities claiming that there have been immense environmental impacts perpetuated by the oil companies and they should pay for it just like the tobacco companies did a decade and a half ago.

I am not naïve enough to think that this is going to solve the finance side of the problem but an interesting development out of that is that at least one of the oil companies, Exxon, has taken the offense and has counter-sued that these are frivolous suits because if they were really meaningful suits, if there was really, imminent, significant damage to these jurisdictions then they would have bothered to mention it in their official statements for the bond and they did not.

What is going to happen is that they are going to have to come up with climate change policies that they can describe to the market and maybe that kind of policy and disclosure needs to be developed. This will make this a current problem instead of a problem ten years from now. And maybe a part of the discussion around which a workshop could be organized would be appropriate.

Mr. Kleeman commented: A number of other communities are facing similar questions. At the American Geophysical Union we teamed scientists together with communities to try to help find solutions.

There are multiple, different ways to finance this. Each of the potential constituencies that would help put the financial part will have different motivations and triggers.

Your communications plan has to take into account those conditions. In traditional funding it is an economic return. If it's looking for tax money it's an emotional issue. Looking back at the Field Act is really instructive because they ran through something that had never existed before because all of these kids got killed.

You have to really think about what are the buttons for the different constituencies and you are going to have to ask for money and tailor multiple communications around that.

Mr. Spencer opined: We are going to have to find ways to reach people based on their needs now. Flooding is the entry point.

What I would see as coming out of this series of workshops is you have gone through traditional and esoteric mechanisms and first you frame the problem.

After this you move into a discussion of the kinds of ways to meet these challenges maybe using some analogies like transportation planning or seismic safety. The product of this set of workshops is the steps that would be required for these financing tools to actually be used.

We would have to do something about flood maps and maps that are prospective based on future sea level rise. There would have to be building standards in order to force the private sector to make the investments we want.

The product will be the policy steps that need to occur. And then we need communication to get the votes. We need an effective communications plan.

That is how we frame the outcome; what are the next steps so that we can realize these tools?

Mr. Paul Okada commented: Exxon hasn't actually counter sued. They have filed a petition that precedes discovery.

The point that you made is a good one and that is that going forward in terms of any sort of useful financing this issue of risk is going to need to be described in a way that accurately reflects where we are.

It is a bigger and bigger issue. We just came out with some guidance in November listing issues that are going to be on every municipality's mind as they go out for money. This is something that we will have to think about as we think about around these issues.

Chair Wasserman commented: One piece that I have talked about in the education piece is that one of the critical pieces of the education is aiming at the kids. That is a long-term piece but Measure AA took ten years. All of this needs to be looking at long-term strategies.

If not this year then certainly next we are going to see a very significant shift in corporate accountability. The corporations have been studying this issue. The corporations have very carefully avoided talking about it at all in anything remotely public.

The reason for that is once they start doing it this has to come out of the corporate reports and corporate accountability. That is going to shift and they are going to have to do that.

That will have a significant effect in how they think and we all think about financing.

We have talked that many of our most vulnerable resources are transportation resources. And that is a source of money for adaptation. It is starting to be used. Caltrans and MTC have been funding some of our efforts.

There is a broader effort there. The Bay Area group of congestion management agency executives is important for what we are doing in a couple of different ways.

If you think about the Regional Adaptation Plan modelled on the Regional Transportation Plan their critical element of the RTP and they may be a very critical element of the Regional Adaptation Plan. More and more they are starting to think about sustainability.

They are also a part of the source of funding. We are going to start weaving them into what we are doing a little bit more.

I want to ask an open-ended question and I would like people to think about it. The three issues on here are new issues to our financing discussion. Does anybody have in mind other issues which we really haven't talked about at all?

Commissioner Showalter commented: I wanted to bring up the category that I see we need to finance. One of the things that we need to finance is we need to finance planning that is region-wide and then from that planning we need to finance some sort of regulations that look at the inter-connectedness of these projects. Right now we don't have that.

When a municipality goes for a permit they don't have to show that it doesn't hurt anybody else. We know that this is a new thing that has to be financed.

Regulation development is something that we have to finance. When we start talking about these things and the workshops we should be matching the big categories we need to finance with the mechanisms that we have that already worked.

Chair Wasserman agreed: I think that is very important and we need to weave that into what needs to be financed.

Group Member Rosenstiel spoke: That is really an important point. I also think that any financing plan can't be just a wish list. It has to be that we state what we want and then we try to find the financing. To some degree we see what financing is available out there and then we live within that budget.

There are two sides to it and we have to address it in this way.

Mr. Benn was recognized: Those are great points and I would ask the question in terms of the inter-relationship of risks what about wind storms and wildfires? They are probably the biggest financial loss in the state has been the wildfires.

Commissioner Showalter added: From a water-supply point of view that is really where the connection is so perfect technically between wildfires and forest management. We haven't really made the connection between sea level rise.

BCDC has typically looked at rising sea level. But you are right. In the context of sustainability completely that is the water supply side.

Commissioner Sears commented: For me that enters in a completely different way recognizing that BCDC is not fire oriented. But as an elected official if I am thinking about how am I going to raise money for my constituents; what I think about is not just a watershed approach but linking the people who are very concerned about fire danger with the people who are already flooding as way for people to recognize that people who live in the mountains are not concerned about sea level rise because they think that their feet won't get wet.

I think about how do I create an area that picks up the fire threatened and the water threatened and that becomes my new special district for fees or a ballot measure. It comes into the conversation about communication and potential public funding.

Chair Wasserman added: We absolutely have to be conscious of that. I have been resistant to trying to be too broad. That comes up a lot in the governance context because we are the stepchild of all the sustainability issues.

Executive Director Goldzband shared an assurance: I can assure you that when BCDC goes to the Department of Finance to ask for more funds to do all this stuff one of the great rationales will be for a whole lot less money you can do prevention than what you face in Northern and Southern California where you decided not to do the prevention.

Mr. Kleeman stated: In Florida they identified a number of measures on sea level rise that would have cost avoidance to the private sector. They have already mapped all of this pretty well.

Commissioner Zwissler commented: I attended a conference in Houston where one of the things we talked about is how even massive-sprawl, ugly Houston is recognizing that they have to focus on quality of life. To address the floods they are taking out the culverts and reopening the meandering bayous which create parks which then makes people like to live there more.

In the financing piece we don't want to lose the quality of life piece as another angle on all of this.

Mr. Spencer added: I would add the wastewater utilities into that because that's another major source of potential funding.

Chair Wasserman stated: My gut says that this is one of the elements of an action plan coming out of this is supporting the shift in the way that the flood control agencies can raise funds.

Executive Director Goldzband summarized some points: The first workshop is the set-up. What we will do is take a look at BCDC's schedule. What we will now try to do starting in March is to do what we did all of last year which is to have votes and permit issues and briefings that first meeting in the Board Room.

Then we reserve this room the third Thursday of the month for a workshop to be held at the same time as the regular BCDC meeting.

This way we can get Commissioners and Alternates there along with the general public. What we will put together based upon this is an agenda for that first set-up workshop that will occur in April or May of this year.

We will also be having workshops this year on the social equity, Bay Plan Amendment as well as the Bay Fill Bay Plan Amendment.

Chair Wasserman added: I think that is a good summary. I would suggest that we flesh that out and have that as the topic for the next and maybe the last section of this group.

Executive Director Goldzband informed the group: Next month on March 1 we will have Janine Guillott who is the Policy Director of the Sustainability Accounting Standards Board which goes directly toward what other organizations are in the midst of suing Exxon/Mobile about.

We also want to probably schedule Kathy to talk about her research on risks, uncertainty and time et cetera. We can't do them all at one time but that will be the next round.

We will be able to by March 1 have a rough draft of an agenda on a workshop that we can pass around and have people to.

5. **Public Comments.** (There was no public comment offered)
6. **Next Steps.** (This subject was covered in the conversations discussed)
7. **Adjournment.** There being no further business, Chair Wasserman adjourned the meeting at 11:55 a.m.