

San Francisco Bay Conservation and Development Commission

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June 30, 2017

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 Meeting Summary of June 1, 2017 Financing the Future Working Group

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 10:30 a.m.

2. **Roll Call.** Present were Group Members: Acting Chair Alex Zwissler, Commissioner Jennifer Lucchesi (represented by Sheri Pemberton), ECRB Member Robert “Bob” Battalio, James “Jim” Cervantes, Justin Cooper, Roger Davis, Jeff Holzman, Michael Papanian and Chad Spitler.

Not present were Group Members: Chair Zack Wasserman, Commissioner J.R. De La Rosa, Commissioner Geoffrey Gibbs, Commissioner Aaron Peskin, Commissioner Kathrin Sears, Mark Northcross and Paul Rosenstiel.

BCDC Staff members present were: Executive Director Larry Goldzband, Chief Deputy Director Steve Goldbeck and Adam Fullerton.

The audience included: Uri Eliahu (California Association of GHADs), Patricia Curtin (California Association of GHADs), Kathy Schafer, U.C. Berkeley, Bob Spencer, Urban Economics and Paul Okada, San Mateo County.

3. **Approval of the May 4, 2017 Meeting Summary.** Acting Chair Zwissler asked for a motion and a second to adopt the summary of the May 4, 2017 meeting.

MOTION: Group Member Papanian moved approval of the Meeting Summary, seconded by Group Member Cervantes. The motion passed by a voice vote with no abstentions or opposition.

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FINANCING THE FUTURE WORKING GROUP MEETING SUMMARY
June 1, 2017

4. **Geologic Hazard Abatement Districts (GHAD):** Discussion of Use and Applicability. Mr. Uri Eliahu addressed the Working Group: My understanding is that you would like our presentation to be more of a dialogue as opposed to a monologue. In furtherance of this condition we will keep our presentation informal with questions answered as they arise.

We are here today as board members of the California Association of Geologic Hazard Abatement Districts (GHADs). These districts have been around since 1979 and they remain relatively obscure. There are only 40 or 50 GHADs in the state of California.

They have been extremely effective for the purposes for which they were originally intended but also the purposes to which they have evolved.

GHADs were established by legislation authored by Senator Bob Beverly in Southern California. GHAD allows a community to tax itself for the purpose of addressing certain types of hazards.

The range of hazards is conspicuously broad. It was deliberately defined to include any natural or unnatural movement of earth or soil. Over the years this has evolved into any manner of land sliding, erosion, earthquakes and anything like that but also flood risks and hazardous materials in soil and groundwater.

There has been very little evolution of the GHAD laws. The GHAD law is essentially as it was adopted back in 1979. There have been a couple of minor changes.

GHADs similar to other agencies have taxing authority, the ability to sell bonds, they can sue and be sued, they can own land, they can be funded from any source and they can exercise the power of eminent domain.

There are two available GHAD board structures under the law. This was something that was amended under the law. You can have a board consisting of the legislative body that forms the GHAD can have its board members serve as the board of the GHAD; it's a state-level agency. Or you can have exactly five property owners from within the GHAD can serve as its board.

There are no provisions for hybrids and there is no turning back. Once a board structure is chosen that is the board structure for that GHAD. The GHAD could consist of the entire state of California and it would still be five board members.

If it is the legislative body option, the legislative body that forms the GHAD; if it chooses to serve as its board, then the board members of that legislative body will forever be the board of the GHAD. So when they have elections, it automatically changes. For this option all that is available are city councils and county boards of supervisors.

If the five property owners within the GHAD are chosen then they are subject to reelection efforts after a four year term. The four year terms can be staggered.

They are initially appointed by the legislative body and once that term ends they are subject to reelection. The votes are property owners within the GHAD. Whether the vote is weighted or not is a matter of board policy. But it is property owners and it is not tenants.

If you are going to form a GHAD that is in two agencies, two cities or two counties; whatever jurisdiction has the most value from their land will be the legislative body. And a JPA cannot form a GHAD.

A legislative body has to have land use authority and police powers and so forth so it is basically a city council or a county board of supervisors.

The GHAD is blind to all political boundaries except the boundaries of the state of California and except that any legal parcel has to be entirely within or entirely outside of a GHAD; other than that, there are no restrictions.

Most of the GHADs in the Bay Area are in Contra Costa County. There are several in Oakland. There are probably eight that are governed by the Contra Costa County Board of Supervisors. There are a total of at least 15 in Contra Costa County.

Alameda County has several GHADs in Oakland, Pleasanton and Hayward.

When we say that GHADs are state-level public entities we mean that in terms of legal authority or legal standing they are not subordinate to the city or county that forms them. They are not instruments of the legislative body that forms them. It is a political subdivision of the state and that is explicit in the law.

There are GHADs with multiple neighborhoods within them. They don't have to be contiguous. The largest GHAD in operation is about 12,000 parcels. The smallest is very small and there is one in the works that is going to be about 25,000.

A GHAD could form a JPA and Contra Costa County operated under that structure at one time but they determined it was not prudent to do so under GHAD law so they then established the GHAD board to be completely separate from the county and the JPA; mainly for liability purposes.

A GHAD could form a JPA and they could JPAs with other agencies too.

There is recent legislation that has been approved that does invoke some professional liability on engineers working for a GHAD. The policies of a GHAD are board-established policies.

Parcels within a GHAD do not have to be in a particular jurisdiction and they don't have to be contiguous. There is no limitation as to the number of parcels. You could have a single GHAD have some parcels in San Diego and some in Eureka and some in Fresno. And you can annex parcels in after the formation of the GHAD. This is done frequently.

GHADs were initially applied to slope stability and coastal erosion types of issues and now they've been expanded to do much more than that including ownership of open space and stewardship of open space. A GHAD can own land including title. This is particularly good for land that nobody else wants.

Once the GHAD owns the land as a property owner it has additional responsibilities outside of the GHAD law. It takes on the responsibilities of a prudent property owner and it does not pay property taxes.

Part of the reason that GHADs have been so effective is that there is a real focus on prevention and anticipation of hazards and in the world of flood management foresight is very important. A dollar spent on prevention can save a 100 or 1,000 dollars in repairs.

When we start thinking about sea level rise the ability to set aside funds, the ability to monitor, the ability to apply active management and adaptive management are all important. That's why these things have succeeded for now almost 40 years.

Generally speaking, GHADs are managed to have very rapid response capabilities. They have on-call contractors that are bound to have two or four hour response times; a very fast mobilization.

The GHAD's revenue stream is split into operations on one side and reserve accumulation or some sort of long-term risk management component. We will call it reserve accumulation.

The operations include everything. They include prevention, monitoring, small-scale repairs and prevention techniques, administration and so on.

The reserve accumulation is setting aside dollars for something, for a rainy day or a large-scale event or maybe something else or adaptive management to sea level rise.

The GHAD is exempt for local ordinances. They are not a local agency. They are not exempt from state and federal resource agency regulations.

CEQA does not apply to a GHAD. Resource agency permitting requirements do apply. Coastal Zone Management requirements have been a negotiated item in certain instances.

Group Member Battalio noted that the idea of whether or not the GHAD's focus on preservation of property is consistent with shore evolution and allowing natural processes and the effects on the adjacent properties and the authority of the Coastal Zone Management agency.

Ms. Curtin mentioned that they never ran into that issue when the Malibu or the Broad Beach GHAD where a beach was replenished. We worked directly with them and so the issues never became something that had to be determined.

Commissioner Pemberton mentioned that she works for the State Lands Commission and they did an analysis on the Broad Beach GHAD on impacts to the public trust in lieu of a CEQA document. It was virtually the same in substance.

Mr. Eliahu stated that if the GHAD is doing something that is not in the Coastal Zone or not in some other state jurisdiction then CEQA would not apply. A GHAD does not trump an authority like the Coastal Commission or some other state agency. State regulations still apply.

GHAD is not subject to local ordinances but the GHAD would not be able to overrule the Coastal Commission. It is just another state agency.

Ms. Curtin said that the reasoning behind this is that GHADs have to be able to react quickly. They don't have time to go through CEQA because their whole purpose is to respond to emergencies.

Mr. Eliahu went through the process by which a GHAD is formed highlighting the most important steps required. He noted as important the defining of boundaries, the establishment of responsibilities and limitations and the assessment of whether to create a new GHAD or annex to an existing GHAD, declaring that agency is subject to GHAD law, preparation of a petition or resolution initiating formation, creating a plan of control, determining the Board of Directors and holding public hearings on the formation of the GHAD.

Formation of a GHAD and getting it funded are two different things. Without the funding a GHAD is moot. The funding is generally more difficult than forming a GHAD.

The most common funding mechanism is through a supplemental property tax assessment; therefore, Prop 218 is triggered and we then need a simple majority affirmative vote of those who choose to vote to pass that supplemental property tax assessment.

The weighting on funding is subject to Prop 218 laws and has nothing to do with GHAD law. The weighting is based on the proposed property tax assessment. If it is a uniform assessment it's equal voting. One of the findings we need to make under 218 in the engineers report is that the benefit is proportional to the assessment. That is fundamental to 218.

Therefore the assessment must be adjusted to reflect benefit. For a large GHAD it is unlikely that the assessment is uniform and therefore it is unlikely that each vote carries the same weight.

Whereas voting for board members is one-person, one-vote. It is the same people but it is a different weighting.

Mr. Bob Spencer mentioned that this is critical to how it touches on 218. If it is a special assessment, yes it is a majority, yes it is weighted by the amount of the assessment to vote; but, you have to separate general from special benefit. And that engineer's report has to be pretty clear on your relative benefit and therefore your relative assessment. To me that is a relatively high hurdle in a large district likely to take on multiple responsibilities over time that may change that allocation of benefits and funding needs. I am curious in your experience with GHADs and how that might apply in a larger application as you are trying to fund regional adaptation to sea level rise.

Ms. Curtin explained: What you said is absolutely correct; and that is, we have to identify the general versus the specific benefits. We do this in the engineer's report.

Mr. Spencer continued: But there is a lot of general benefit to utility owners living up on the hillside with a GHAD that is just protecting the flat lands but maybe a wastewater treatment plant. So does the GHAD have to include and at what point does it all become a general benefit? There is case law around this and it is not easy.

Mr. Eliahu agreed: Right, it definitely is not easy. It is clear that the special benefit has to accrue to those that are in the GHAD and paying the GHAD. That is fundamental to 218.

If others are getting a special benefit, that doesn't matter if they are outside of the GHAD. The problem is the general benefit. We cannot fund general benefit except under rare circumstances and the Malibu thing is the case study for that. We generally cannot fund that, the general benefit, through the 218 assessment.

Either the GHAD has to get other funding or not provide the general benefit. The special benefit can extend beyond the GHAD boundaries but the GHAD doesn't care about that.

It only has to have an assessment is only feeding the special benefit within the GHAD boundaries.

Under certain circumstances we have made findings that have stood up where we did have a general benefit but that is hard to do. You need to make those findings and you need to defensively make those findings.

GHAD pre-dated Proposition 218 by almost two decades. They also pre-dated Mello-Roos.

Mr. Spencer opined: A GHAD could just form a Mello-Roos district if it wanted that type of funding or approval process.

Ms. Curtin added: GHAD law specifically allows that.

Mr. Eliahu explained: Non-property owners do not have a vote in a GHAD for the funding or the formation. A GHAD is exempt for local oversight and local ordinances.

Group Member Battalio commented: That raises questions in my mind about how the public trust is maintained through that.

Ms. Curtin explained: A GHAD is exempt from local permitting requirements. We have to abide by the Brown Act and hold public hearings and meetings.

Mr. Battalio added: I don't know what authority non-property owners have to weigh in. They can go to the public meetings but they have no standing.

Mr. Eliahu explained further: They are not able to vote but they certainly have their political clout. There is a process by which they can be heard.

Mr. Battalio spoke: There is a question in public policy as to how public trust balances private property rights. I feel this is an important issue.

Group Member Davis commented: There was a case in San Diego a couple of years ago that undermined the validity of weighing of the votes. Does this have application?

Mr. Eliahu answered: Perhaps, I don't know.

Ms. Curtin added: There is a provision in GHAD law that says the formation proceedings are exclusive in GHAD law. In other words, that we have to abide by these very specific formation requirements and not take into consideration others.

Mr. Eliahu detailed voting requirements: So that the voting requirements that are applicable overwhelmingly are the Prop 218 requirements. The formation of the GHAD is very easy. It is all about funding and how you get the funding. To the extent that this legal precedent affects 218, things that are funded through 218; then it would apply because that is not related to GHAD law. It is the process by which property owners vote to tax themselves.

And to the extent there is some legal finding that tenants can participate in the voting process of taxing property and then it would apply. It is not a GHAD question. It is a 218 question.

The GHAD law allows for any revenue source. We have GHADs that have received funding from FEMA and the Office of Emergency Services. We can also use commercial borrowing as well. A GHAD can issue bonds.

The issuance of bonds is very unusual because typically the dollar amounts that have been involved have been such that bonds are expensive and take too long. Other means of financing are generally applied.

Most GHADs are self-funding. They do not need to go into debt.

In the Malibu the Broad Beach community lost their beach. The beach began encroaching into private property. They set out to form a GHAD with the intent of initially going into debt. The GHAD was formed by the city of Malibu. The board structure that was chosen was the landowner board structure. The Coastal Commission was very involved and an environmental study had to be done. It was not called an EIR but it was the same thing.

One thing that is unusual about this case is that it is a coastal-erosion-adaptive-management type of GHAD. It was set up as a funding vehicle. Then we had this whole question of general versus special benefit.

As a Coastal Commission condition the property owners had to provide public access across the beach front which previously had not existed. There was not a continuous public access across the backs of these properties.

We had to address the general benefit question. Clearly this is a general benefit – the public access. The engineer's report had to be detailed and lengthy and carefully authored because the property owners in this area tend to be well-heeled and know good lawyers.

The general benefit was addressed based on three findings or three arguments. One was, the general benefit was completely incidental to the project. The project would not look any different with or without the general benefit. And it would not cost anymore with or without the general benefit.

Another argument is that, except for the general benefit – the public access, the entire project and its reason for existence would not exist. There would be no reason for this project to occur if not for this beach frontage improvement. The GHAD was created for the express purpose of restoring a beach. If a requirement of restoring the beach is the public access; if we don't provide public access we have no project and therefore the GHAD does not need to exist.

The third legal argument to justify the public access was that there were some property owners on the east side of the beach that actually had to move their emergency revetment wall back in order to have sufficient width for the public access. In so doing they were giving up valuable property. The value of that property could be quantified. Therefore, there was a non-assessment, non-Prop 218 values being brought in.

Not all of the public access was funded through property tax assessment. There was a contribution from a non-property tax source; a value source.

As we think about sea level rise around the Bay we think about adaptive management. We need to be able to tell the story of the general benefit. It seems if there could be and if a GHAD turns out to be a valuable thing that we would need to either supplement it with some other revenue source that isn't subject to 218 that would tell the story of the public benefit being funded through something other than local property taxes or we need in-kind value if it is not cash.

So if land is contributed that is a value that is coming through something other than a supplemental property tax. That is how we dealt with it in Malibu. It is a forever program. About every 10 years we expect to have a major beach re-nourishment out there.

It has been successful to date. We are getting to the point where it is about to start construction.

Group Member Battalio asked: Can a GHAD force a property donation for the general benefit?

Ms. Curtin replied: As long as they complied with all the eminent domain laws, yes.

Mr. Eliahu explained: The GHAD board under law must appoint a treasurer and a clerk. The treasurer reports directly to the board. This person manages the GHAD funds.

The revenue stream of a GHAD is as secure as a revenue stream can be. Even through a downturn the practice of the county tax collectors has been to disperse 100 percent of the funds to the GHAD regardless of whether property owners are paying their property taxes. The county tax collectors sell the tax liens at face value. We as GHAD managers receive every penny on time twice a year.

The cheapest GHAD out there is about 100 bucks a year. The most expensive GHAD out there is about 3,000 bucks a year per property owner. Malibu is going to be about 50,000 a year for a 40-foot wide parcel.

The Malibu property owners voted to assess themselves. Usually GHADs are formed before there is somebody to object to the assessment.

There is a CPI adjustment to the assessment and then the actual amount collected is a board decision annually up to that amount. There is a cap and the cap increases with CPI. The actual levied amount can be less but can't be more.

Group Member Papanian asked: Is there any restriction on what a GHAD can spend money on?

Ms. Curtin answered: Any improvement. It is very broad.

Mr. Eliahu commented: John Gioia who is on the Commission is very experienced as a GHAD board member and he sits of the board of seven GHADs. These are GHADS that use the board of supervisors as the governing body. He has been very familiar with GHADs for many years. He has been encouraging us to do these presentations for a long time.

He thinks that a Bay-wide GHAD might be something to consider or maybe you start it in a particular area that might be more vulnerable.

Ms. Schafer commented: I have been having these conversations with Uri for a long time and one idea might be that currently SFEI has identified 27 operational land units. What if you had 27 GHADs that were bounded or started to think about bounding them with the landscaping on one side and a major freeway on the other and that's how you divide it. That would solve a lot of the problems that you currently have with certain jurisdictional issues.

Mr. Eliahu chimed in: If you have multiple GHADs you have the advantage of local control and you have the advantage of a focus on whatever the issues are within that area. The advantage of having a single GHAD or fewer GHADs is that the risk pool and the concentration of risk is such that the reserves can be applied where they are needed.

Large insurance carriers do not like geographic concentration of risk. We've been talking for years about having a GHAD that has a community in southern California and a community in northern California because it is very unlikely that a large-scale event would occur at both at once. They have a common reserve. It is just like insurance.

There are many advantages and disadvantages to both. What we have been talking about for years is; where is the lowest hanging fruit? Once a GHAD is started then it's an easy decision to expand it or just add GHADs.

Executive Director Goldzband asked: What is the governance relationship between the GHAD and other public and private entities that support that community?

Mr. Eliahu explained: Generally speaking the GHAD protects the rights of way that contain those utilities. Generally speaking the GHAD will ask the utility owners to make their own repairs if there is damage to their infrastructure.

This is a matter of practice and it is not a matter of law. All GHADs have to have a general plan and that identifies who is responsible when damage occurs. It is really important to be clear on this. This is set at the beginning.

Acting Chair Zwissler moved on to Agenda Item 5.

5. Green Bonds: Discussion of Use and Applicability. Group Member Chad Spitler addressed the Working Group: My background is in institutional investing. For 20 years I have been working with entities like the U.S. federal government, CalPERS, CalSTRS, foreign governments like China et cetera to buy investment products for them to facilitate their financial goals.

My contribution to this Working Group is to think about if we need to attract institutional capital to invest in projects around the Bay. What are investors going to look for and will it be an attractive investment. I will speak to this today as it pertains to green bonds.

Group Member Michael Paparian spoke: My background is the intersection of environmental finance and environmental policy; more on the policy side. I had a career in environmental policy in various forms. I have been working with the Climate Bonds Initiative which is a London-based organization promoting the issuance of green bonds like the U.S. Green Building Council for bonds. They are trying to develop a scheme to certify and validate the greenness of bonds.

In the international arena what we are seeing now is increasingly in the United States, that we need to start considering climate as we deal with all things financial.

We are starting to see all financial products being influenced and guided by climate considerations. We just saw within the last couple of months two oil company shareholder resolutions related to climate have passed. It is highly unusual for a shareholder resolution to pass to begin with; and for oil company shareholders, wow! We are starting to see some movement that had been unexpected.

Enormous opportunities exist to deploy green bond financing related to infrastructure.

Bonds do not create money. You need a source of revenue to pay for the bonds. They are a tool that hopefully over time will show some of the advantages of issuing a green bond over one that is not.

Bonds are a form of debt as opposed to ownership. They enable many investors to lend money to a project and get repaid. The issuer and borrower agree to pay back at an understood rate over a period of time. Bonds do not represent ownership. They are usually considered safer than ownership and transaction costs can be more than a conventional loan but the flip side of it is that the debt can be cheaper than a conventional loan.

There are taxable and tax-exempt bonds. If you buy a bond you earn interest on it. The interest that you earn can be subject to taxes as income or they can be exempt from taxes. Typically government-issued bonds are tax-exempt. Typically bonds benefitting business are taxable but not always.

Group Member Chad Spitler added: Another point on why you might do a bond versus a loan is flexibility. Loans you have the lender that you are accountable to in the requirements of your loan document and a bond you can structure it in a certain way that provides you with more flexibility with what you are going to do with the funds.

This is what makes green bonds green. The green bond market really started 10 years ago by the World Bank. The primary interest on the institutional investor side for why these were instruments that they wanted to place with their clients were this use-of-proceeds concept.

The ability to have some transparency into where your investment is having an impact is the idea behind this concept. There has been a rise in the level of interest in the institutional investor community in impact investing more broadly.

The challenge with impact investing is that it has a reputation as having to take a financial hit. You don't want to have to pay more for a bond because it has some good benefit if you are a fiduciary investor. This is a financial decision. If you can make that financial decision and have transparency that you are having an effect on these types of projects then that is an appealing investment.

The use of proceeds was really the original driver for why the institutional investor community started to pick up on green bonds as a valuable instrument. It allowed them to align their client's interests in these types of projects with their financial goals and objectives but without having to give up a return. This is critical.

There are key structural components that investors are looking for. The first piece is the most important in that it has to be a good investment. It has to be competitive to non-green bonds.

There are some investors like the socially-responsible investors or others that will accept a lower rate or pay more for the bond because of the positive societal or environmental impacts. If you want to attract the mainstream institutional capital; that is not the way to go.

The benchmark size is really important. Investors make decisions by making comparisons. One of the early problems with building this market was; there were no benchmarks. Boards that make these decisions measure against benchmarks. Now the bond issuances are large enough that they are getting included into benchmarks and this is less of a problem than it used to be.

What this means is that these have to have big dollar amounts to get big capital. So a minimum benchmark is around 250 million dollars.

Ringed-fence proceeds go back to the use of proceeds concepts. The investors that are buying green bonds, because of their interest in the use of proceeds, they are less interested in supporting the general operating expenses of an organization. The ringed-fencing of the proceeds assures the investor that the money is actually going to the benefit that they are hoping to achieve through their investment.

Project transparency has been a big piece of green bond issuance. Generally you have a high-level description of what you are going to do with the money. In order to attract green bond investors you've got to be more specific.

You've really got to go into, here's where the money is going to be spent and these are the types of projects that will be funded. And you have to give some sort of reporting back on the impact; i.e. have you been successful.

The ability to attract capital is really dependent on those governance components of a green bond that do not necessarily exist in a regular bond.

The last piece is evolving. The Climate Bonds Initiative has played a big piece in this. We are talking about third-party verification. Some of this verification is involved in understanding the science.

Investors are not necessarily scientists. Sometimes an investment may seem like a great environmental benefit in the short term but in the long run it is actually extending the life of a polluting technology and you might end up with greater environmental pollution. These kinds of scientific-based components are not within the strength of investors to understand. So having a third-party to come in and say, this is actually environmentally sound and it makes a lot of sense is a critical component.

These are the best practices around if you want to get the institutional capital for a green bond.

Somebody has to pay to have this review done so who is going to pay for all of this if it's going to be sold and the coupon rate is going to be the same as somebody who doesn't. So this is a point of contention in the market with regards to all those lists of things that investors want but yet do not want to pay for.

The distinction between asset owners and asset managers is important. Asset owners are the ones that have the capital; it's their money. They hire asset managers to decide what to invest in based on the parameters of their objectives.

Asset owners and asset managers are both buying. Normally you would see mainly the asset managers buying for their clients but now you see the asset managers buying green bonds directly for their own accounts and managing the money internally as well.

Group Member Papanian stated: It turns out that CalPERS and CalSTRS who are the big buyers in California have no advantage of buying a tax-exempt bond because they don't pay any income tax.

CalSTRS is actually supporting government green bond issuances for municipal governments in Sweden because there isn't a taxable, tax-exempt issue. They have actually bought a lot of Swedish green bonds that benefit local governments.

Group Member Justin Cooper added: The Treasurer's Office did a listening tour on green bonds and the conclusion was that a major impediment to the green bond market in the United States is the fact that the people who would be buying green bonds are largely not tax payers. And the entities that would be issuing green bonds are usually tax-exempt so they are kind of missing each other. So a competitive advantage does not exist.

These are some of the reasons why we are seeing issuers move to green bonds so they have a specific project objective. It is usually not for their general operations.

They are seeing different kinds of investors. As an issuer in need of capital you want a diverse investor base. You don't want everybody buying your debt or equity for the same reasons. You can increase your investor diversification.

Green bonds have become really popular. It is actually a form of marketing. If you can say you've issued green bonds; that is a positive thing and has a reputational benefit. There is a demand here and that makes them more valuable on the secondary market.

What is driving the demand is the asset manager to asset owner connection. You have a growing body of public pension funds and other large institutional investors who are asking their asset managers to look for these kinds of opportunities. It's a cultural shift.

If you can do this and still make us money then, do it.

Group Member Paparian opined: The European financial community is a bit ahead of the financial community in the United States. Some of the investors in Europe are thinking that by having a certified green bond there might be some more reliability over time of the bond itself as compared to a non-certified bond.

European green bonds do have a pricing advantage. This is not so much in the United States except for the secondary market a little bit.

Group Member Spitler commented: Alignment of their social or environmental values with their investment portfolio without taking a financial hit is the ultimate goal. As an investment manager you think about how you structure this. Based on your client's narrative you decide what the investment vehicle is going to look like. People are looking to having their cake and eating it too when it comes to green bonds.

People have green bonds in their portfolios today but they don't even know it. They are just buying bonds. It's really that use-of-proceeds concept that makes it green and can you say hand-on-heart that this is a good, long-term environmental or social benefit?

We are finding that green bonds are selling well. There was concern in the pre-benchmark days in the smaller issuances; was it a buy-and-hold strategy? If you needed your capital out could you sell it on the secondary market? This ends up not being a problem. These are some of the main reasons investors are buying them.

The green bonds market was just emerging in 2011/2012 and people did not understand what it was. The World Bank was actively promoting the green bonds market. It has really grown rapidly. The growth has also led to diversification in issuers. Not only is it now the large development banks but you are seeing municipal issuances and even corporate issuers.

The green bond market started in Europe and has expanded globally. China has been doing a lot of work in this market. Most of the Chinese efforts have been in alternative energy and green buildings.

Group Member Paparian stated: I have been tracking government-issued, green bonds in California. They are being used for a lot of purposes: wastewater, open-space acquisition, habitat, recycling facilities, green buildings and other things.

In 2014 we had issuances totally 300 million, 2015, 395 million, last year, 1.3 billion and the amount through mid- year of this month will be exceeding and up to a total of 4.0 billion in government-issued green bonds.

Ms. Schafer asked: Is Dave Jones encouraging the issuance of green bonds for the insurance entities that have to maintain an insurance reserve?

Group Member Spitler answered: I don't know specifically about Insurance Commissioner David Jones. For insurance companies, in general, green bonds are investments that they really like. Insurance companies are huge fixed-income investors. That is the bulk of their portfolio that they buy bonds.

As investors insurance companies are looking for bonds that can have this other positive impact. The insurance industry is one of the biggest buyers of green bonds and was some of the original capital providers to build the market and get it going.

Group Member Papanian added: They have some community reinvestment requirements. Dave Jones has an office that is encouraging them to push that into environmental areas.

There are a lot of standards that have been developed or are in the process of being developed. Some of these are to ensure that infrastructure in 2050 and beyond is as green as it can be.

We need a lot of money to deal with climate in a lot of ways. A number of 35 billion here in the Bay Area has been mentioned and we know that is a made-up number and probably wrong.

There is demand for green bonds in the market place and there are opportunities to engage more in specific arenas. There are people wanting to buy green bonds to assist local projects. For a lot of investors having a sense of community is important.

Group Member Spitler added: Place-based investing is becoming a big topic within impacted investing. The idea is that you want to invest in your local community.

One of the biggest critiques of place-based investing is how do you make sure that you have proper diversification?

Group Member Papanian stated: This is starting to happen more and more. There are at least one or two firms that are specializing in helping a local government chop up their bond in a small enough chunk that it's desirable for even smaller investors.

Group Member Spitler commented: One of the biggest problems in green financing is this question of scale. To date most projects have been very small, small dollar amounts. Bringing the large institutional investors who have billions of dollars in capital to these kinds of smaller, local projects is a challenge.

What's happening is that the issuances are getting to be so popular now with the very large investors; the small guys are getting left out. I've had individual investors ask me how they can get green bonds. I tell them, sorry, they are going to the U.S. federal government; those are the entities that are gobbling these up. This is another market issue.

Ms. Schafer commented: I think that this is one of the roles that BCDC can do to help bring that size component down. One of the issues that I find is that in order to get the interest you have to have a big enough pool to make this useful.

Acting Chair Zwissler thanked the presenters and Executive Director Goldzband commented.

6. **A Discussion of Future meeting Topics and Schedules.** Executive Director Goldzband stated: Our next meeting should normally happen on Thursday, July 6th. It turns out that actually two weeks later, July 20th works a whole lot better for most of you. Assume we will meet on July 20th here in this building.

7. **Public Comment.** No public comments were voiced.

8. **Next Steps.** The GHAD presentation highlighted the fact that we need to become more familiar with 218. We are going to ask Mitch Avalon to come in. He is the roaming ambassador for stormwater and wastewater management. BAFA is the Bay Area Flood Protection Agencies Association or Authority. Mitch is a marvelous speaker and can talk to us a lot about stormwater and wastewater which we have to understand because of the 218 connection. This is really important given what the GHAD folks were talking about.

I would like to give you all a challenge. The challenge is by noon on July 20th you will now know more about what's going on in terms of projects and the way things are financed than 99.9 percent of the Bay Area public.

What Chair Wasserman is going to want to hear from you all are thoughts about what the next steps should be and can be which includes how do we grow ideas from here and put them into public workshop form?

How do we move this from a discussion of, okay, now we know what is going on to – how do we actually figure out what it is we can do to make whatever it is happen.

9. **Adjournment.** There being no further business, Acting Chair Zwissler adjourned the meeting at 12:13 p.m.