Integrated Climate Adaptation and Resiliency Program
Technical Advisory Council

June 16th, 2017
Meeting Agenda
Elihu M. Harris State Office Building, Room 1
1515 Clay Street, Oakland, CA 94612
10:00am – 4:00pm

1. Welcome – Louise Bedsworth, Chair

2. Roll Call – Louise Bedsworth, Chair

Roll call: Bruce Riordan, Jonathan Parfrey, Jason Greenspan (alternate for Darin Chidsey), Steve Sanders (alternate for Martin Gonzalez), Keali'i Bright, Tina Curry, Kate White, Louise Bedsworth, Sekita Grant, Jana Ganion, Tapan Pathak, Cara Martinson, Andrea Ouse, Brian Strong, Louis Blumberg, Danielle Bergstrom, Laura Muraida (alternate for Gloria Walton), Kit Batten.

Not present: Mike Antos, Michael Carroll, Ashley Conrad-Saydah.

3. Approval of draft minutes (3/27 meeting) –Louise Bedsworth, Chair

Louise Bedsworth noted that there was a small number of edits to be made to the meeting notes from March 27th. A summary of changes are as follows:

- Page 15 – clarify Danielle Bergstrom's comment about encouraging a case study that captures how adaptation can happen in rural farmworker contexts.
- Page 16 – correct "Rockefeller institutions" to "Rockefeller Foundation" and clarify context.
- Page 17 – clarify that SB 375 provides incentives in the form of CEQA streamlining.

No other members had comments or suggested edits to the March 27th meeting notes.

Approval of Minutes
Motion: Kate White
Second: Jana Ganion
Aye: All but 3
Abstain: Jonathan Parfrey, Cara Martinson, and Steve Sanders (due to all not having been present during the March 27th meeting).

4. Adaptation Vision and Principles – Nuin-Tara Key, OPR

Louise Bedsworth provided background on the reason for discussion of vision and principles for the Technical Advisory Council (Council). The Council had decided at its first meeting on March 27th 2017 that a vision and principles workgroup should be formed to further discuss vision and principles and that OPR staff would aid the group in bringing the results from that discussion to the June Council meeting.

Nuin-Tara Key (OPR) gave an overview of the direction from the Council and the resulting proposed approaches developed by OPR staff in response to that direction. She pointed out to the group that the meeting materials contained a schematic that summarized the framework she was presenting, which had been modeled off of the state's mitigation schematic.

The proposed framework had three components. The first was an adaptation **vision**, which was a clear ask from the Council at the first meeting. The second was a set of **principles** to guide how to achieve the vision. The third component was **enabling actions**.

Three draft **vision** statements were presented. They were as follows:
- Version 1: All Californians will survive and thrive under a changing climate. The most innovative and progressive state in the union will meet the challenge of rising temperatures, extreme and prolonged drought, flooding and wildfires, ocean acidification, and rising seas by taking bold pro-active actions to protect all people, our economy, and our quality of life. [BROAD, AFFIRMITIVE STATEMENT]
- Version 2: All governmental activities intentionally work to reduce present and near-future (<20 years) climate change risks for California residents, especially vulnerable populations. [PUBLIC SECTOR FOCUS]
- Version 3: People, communities, built infrastructure, and natural systems can withstand changing conditions and shocks, including climate change, such that impacts are minimized, and people and systems can recover easily, enabling communities and natural systems to thrive in spite of a changing climate. [RISK REDUCTION STATEMENT]

Nuin-Tara followed her presentation of these draft vision statements by asking the Council to keep in mind what audience (broad, targeted, etc.) the vision should be targeted towards, and asked for feedback on these statements at the end of the presentation.

Nuin-Tara then presented a draft set of **principles**, which were developed by blending state priorities from various adaptation-focused state documents as well as comments and resources from Council members made during the March quarterly meeting and the Vision and Principles Workgroup. The presented draft principles were as follows:

1. Prioritize **integrated** climate actions, those that both reduce greenhouse gas emissions and build resilience to climate impacts.
2. Prioritize actions that promote **equity**, foster community resilience and protect the most vulnerable.
3. Prioritize actions that utilize **natural and green infrastructure** solutions.
4. Promote **collaborative partnerships** across scales and between sectors.
5. Base all planning, policy and investment decisions on the **best available science**, including local and traditional knowledge.
6. Employ **adaptive and flexible governance** approaches.
7. Avoid **maladaptation** by avoiding responses that worsen the situation or transfer the challenge from one area to another.

Nuin-Tara next described the developed **characteristics** and **enabling actions**. The goal of the characteristics was to characterize what resilience would look like for different systems (natural systems, people and communities, and infrastructure and built systems).

The following presented preliminary list of enabling actions was an initial brainstorm that came from the Vision and principles Workgroup meeting:

- Financing
- Incentives
- Policy and regulations
- Research
- Governance
- Public-private partnership
- Capacity building
- Awards

The enabling actions were presented as an initial starting point to a conversation, not as a final list for adoption by the Council.

Discussion questions for the group were as follows:
Framework

- Does this framework make sense?

Vision

- Which type of vision statement should we be setting (aspirational and affirmative, risk reduction) and who is the vision for (state in general, public agencies, other)?

Principles

- Are these the right principles, what is missing? Characteristics
- Are these the right 'characteristics of resilience' in each of these categories?

Enabling Actions

- What are the types of actions that should be touched on? (Investments, policy, etc.)

COUNCIL DISCUSSION

Louise Bedsworth: California Air Resources Board (ARB) has a separate vision for mitigation from their specific reduction goals. Here, we have combined the vision and goals. Does this work?

Jason Greenspan: The role of Council is not captured in this vision or name of the document. Was this intentionally created to be more outward facing?

> Louise Bedsworth: Yes, this framework is broader and outward facing. It is aspirational but has an outcome as well, which is a thriving California.

Jason Greenspan: I would like to take out the word "surviving" and add some additional actions.

Jonathan Parfrey: Version 1 seems to be most outward-facing and compelling vision statement. I would like to slightly clarify and align this statement with references to infrastructure, nature, and communities. I like the idea of having the principles. With specific regard to the principle about maladaptation, I would like to suggest the integration of a definition that captures the following: when money is misspent and the opportunity is missed to prepare for adaptation. For example, projects exists that do no harm to current work on climate change, but are lost opportunities that could have further addressed and planned for climate change. I would also like to see a prioritization of efforts that accommodate multiple benefits (ones that reduce GHGs and include adaptation).

Louis Blumberg: I would like to take a step back. All versions of the vision statement are fine. We still have yet to address who the audience is. AB 32 is a mandate. I am interested in creating actionable and achievable goals that have a timeframe. For example, ICARP could create a goal to help every city and region incorporate climate change into all plans by 2025.

Brian Strong: Following up on that point, I think that the principles should have measurable actions. They should also focus on positive things like words 'thriving' communities and 'benefit'. There should also be something included in the principles about the benefit of thinking and planning in the longer term. The framework itself is good, but we need to include things that are implementable over time frames.

Kit Batten: Building off of Louis and Brian's comments, I think it is very helpful to have the AB 32 comparable schematic. This immediately made me think of SB 379. Perhaps the TAC could try to have cities implement SB 379 mandates sooner rather than later?

Louise: Yes, SB 379 also came to my mind when Louis was speaking. Tina, what if every city and county followed the timelines for SB 379 and General Plans? What does that look like?

> Tina Curry: If a city has an adopted Local Hazard Mitigation Plan (LHMP), they must incorporate climate adaptation upon the next update (starting 2017). LHMPs, while not mandatory, are updated every 5 years, which makes the timeline for those jurisdictions 2022. If a city does not have a LHMP, the Safety Element of the General Plan must be updated by 2022 to include climate adaptation.

Andrea Ouse: What happens if a jurisdiction does not meet those requirements? There are no 'teeth', making this not enforceable.

> Kit Batten: Yes, but it is publicly communicated and has a deadline. Grants will also likely become available for this, creating a bigger incentive to participate. With regard to vision statements, I like Version 1 the best, but would also like to add language from version 3 into it. The word 'protect' stuck out to me. I would rather use a less defensive word. Also, Version 2 could become a principle rather than a vision statement.

> Also speaking of SB 379, this is another example of needed coordination. Planning solely at the local level can lead to situations, for example, where one community builds a sea wall while another puts in wetlands (these can be counter-productive). Another regional governance structure is needed to coordinate scales of government and make sure plans are working together.

Sekita Grant: I appreciate including enabling actions, and agree that we should add a timeline for all actions. With regard to the vision statement, I think Version 1 is appealing but would like to include more urgency around vulnerable communities in this statement. We need to focus on people and can't take a general approach to solutions. Also the impacts included in the statement are not the full list. I think we should not include the list because it would be too long. I also echo other statements about using positive words like 'thriving' and 'resilient'. My last comment is that we need to show a lot of deference to what is happening locally and uplift and support local efforts.

Bruce Riordan: The framework is good. I echo what others have said about having specific measurable targets (like using SB 379). I often use the AB 32 schematic/graphic when speaking with other groups but always point out the measurable pieces of it. Measurable actions would make our framework stronger. I also agree with Sekita about urgency. While we want to use positive language, we will do a disservice by not making it clear that there is a huge problem here (future climate impacts). For this reason, we should include the word 'survive' for urgency. With regard to principles, I think having 3-4 might be more useful as it would help frame things. We could take out the characteristics and work those into the vision. With regard to enabling actions, I would like to see something similar to AB 32 by including a measurable target.

Steve Sanders: I agree with Bruce. Urgency is important to embed in the vision. I also second Jonathan's point about including the definition for maladaptation about missed opportunities.

Kit Batten: I think we should start with Version 3 and then integrate Version 1. Version 2 could be a principle. We should also go beyond 'withstand' or 'preserve 'to 'restore' and 'enhance' our natural systems and communities. With regard to enabling actions, we should think more broadly about public/private partnerships. These partnerships can be any type of organization. Collective action is important more generally.

Keali'i Bright: The interactions that people have with this group may be unclear. We should have a clear way for people to engage with the Council. Not sure if this means outreach or tools, but need some sort of transaction for people to work with us.

Louise Bedsworth: That is a good point. That also gets at enabling actions. That may be something we need to scope out. The point of this council is public engagement.

Nuin-Tara Key: The legislation (SB 246) does not specify whether it is the TAC, OPR staff, or the Program (ICARP) doing the engagement, but they are not mutually exclusive either and the legislation is not limiting. If the Council wants to do engagement, that is possible.

Cara Martinson: To me, the most important thing is the enabling actions, where outreach and coordination can happen. We need to communicate that to broader constituencies who we represent by reflecting that in the vision statement (outreach and collaboration) so that moving forward we are sure to be providing tools and resources.

Tapan Pathak: I agree with most of comments especially around Version 1. It's good that it's broad but it doesn't give direction or urgency to outcomes, which would be better to include. Objectives within the vision statement would also be useful.

Jana Ganion: Vision statements are very difficult. For our purposes today, I recommend we take Version 1 and talk about impacts broadly and put the long list somewhere else. Make sure people can see themselves in the vision (do this by incorporating Version 3). Use words like 'bold',' proactive', and 'urgent'. Vision statements should be aspirational and inspirational. Regardless of what people are doing, pairing adaptation and mitigation requires innovation. With regard to enabling actions, consider including design and innovation.

Laura Muraida: Measurable goals and indicators are important. Also incorporate social equity and vulnerability in the vision. Be stronger in principles around advancing social equity and closing the climate gap.

Sekita Grant: I agree with Laura's thoughts about metrics. I would like transparency and accountability for this. As we are thinking about equity and community work, we should be very intentional about uplifting and promoting community engagement.

Jonathan Parfrey: Enabling actions are methods to achieve something. It would be good to use the enabling actions to grade ourselves or track our progress. I agree that we should add design and innovation to the list of enabling actions. With regard to the vision, one individual at a recent Safeguarding California workshop said "We aren't mitigating our way out of this." This is a strong statement, and could be used by the Council in some way.

Bruce Riordan: Using the word "implementation" would be better than "enabling actions"

Sekita Grant: We need to be very upfront about the importance of community work with this Council. The State's work in mitigation (emissions reduction) missed the boat on this.

Keali'i Bright: Consider incorporating local community or local government support in the enabling actions/implementation.

PUBLIC COMMENT
(No Public comment was received by OPR staff).

COUNCIL ACTION

Louise Bedsworth provided a summary of the discussion and next steps:
I propose that we have the Vision and Principles Workgroup meet twice between today and the next quarterly meeting in September to rework the vision, for example by adding more language around vulnerable populations and urgency, natural systems, and removing the list of impacts. Also work to create quantitative goals starting with SB 379 implementation and rework the principles from comments made today.

Motion: Kit Batten
Second: Brian Strong
All: Ayes

5. Adaptation Financing Framework and Case Studies – Nuin-Tara Key, OPR

Nuin-Tara Key provided an overview and discussion primer on the topics of adaptation financing and proposed case studies:
Financing rose to the top of the last Council meeting as a critical area that needs attention. The Council brought together a Financing Workgroup to begin discussing ways that the Council could take steps towards addressing issues or gaps in adaptation financing. We have also been using the term "case study plus" starting from the first Council meeting, but we would like feedback on this, with suggestions on alternative ways to describe the Council's efforts in this area.

The Financing Workgroup suggested that they start in on the topic of adaptation financing by developing a framework to understand the landscape of financing mechanisms and from there identify examples of how those mechanisms are used. We have pulled together a proposed approach for this framework and proposed concepts for potential case studies or partnerships for work that could feed into this framework.

The framework organizes different funding/financing categories into a table while filling in examples of ways that each have been used in support of adaptation/resiliency. We put in high level examples of some of these, but can go into more detail. If you are interested in developing more detailed descriptions, we can do that, but this is a roadmap that needs your feedback first.

Proposed framework:
1. Develop an adaptation financing framework starting with the Los Angeles Regional Collaborative (LARC) Financing Paper that was discussed at the Financing Workgroup meeting on May 5th.
2. Implement a "tiered" approach to the adaptation case studies as also brought up at the May 5th Workgroup meeting
   o Tier 1: situations in which funding is available and could be scaled to other sectors, climate impacts, or geographies.
   o Tier 2: situations in which funding is not available, but should be an area of focus.

Proposed application and use for this framework:
1. Adaptation "toolkit" for local governments, with special focus on resources that can support jurisdictions with different capacities (e.g. staffing capacities or revenue options).
2. Daylighting categories where there are significant adaptation funding or financing gaps.
3. Examples that demonstrate or highlight implementation of the TAC's (proposed) Adaptation Principles.

Proposed Case Studies:
- SB1 Adaptation Planning Grants (Tier 1):
  o The TAC would play an ongoing technical assistance role to grantees to identify lessons learned, especially around the role of partnerships (regional, cross-sectoral).
- Tuolumne County National Disaster Resilience Competition (NDRC) (Tier 1):
  o The Council would provide input and feedback on the utility and replicability of the information collected by the NDRC Replicability Working Group, give feedback on presentation of the information to make it most useful for other communities and audiences across the state, and help identify lessons learned.
- Funding and financing for adaptation efforts in low-income communities (Tier 2):
  o The Council would provide guidance on the scope of work for convening the Federal Reserve Bank of SF to identify the investable opportunities that support adaptation and resiliency within low-income communities and identify financing mechanisms that ensure adaptation financing flows into low-income communities

COUNCIL DISCUSSION
Louise Bedsworth: Do we like the approach of using the LARC financing framework as the starting point for this framework? Are there categories that are missing? Is the organization good? The only way to do this is to get the Council's support to actively populate case studies within the table (through the workgroup). This would create a good product.

Brian Strong: I like the framework idea and the tiered approach. LARC's framework is a good start but there isn't enough detail there for local governments. For example, bonds are a widely known financing mechanism, but they don't always work. It would be worthwhile to consider adding evaluation criteria and guidance for each mechanism (ie. What is the revenue generating potential? When is it available? Political feasibility? Cost burden impact? Etc.) Each mechanism would have different guidance/criteria. Another thought is that it may be better to limit the number of case studies and have them be more illustrative. The Federal Reserve Bank of San Francisco idea is great. That is one of the best ways that we have been able to get funds to disadvantaged communities. I am interested in learning more about this.

Danielle Bergstrom: I would like to echo what Brian said. This is a good starting point but this will need more details and nuance. It would be most useful to have real people/experts that could follow up on the framework and connect communities to the right experts to provide guidance. The Federal Reserve Bank is a good idea.

Kit Batten: Similar to that comment and related to capacity building, a good outcome of this would be some course materials that could be accessed by communities. It is important that whatever we put together is distributed to support action and does not sit on a shelf without use.

Louis Blumberg: The matrix is good. There should be an additional column that describes the focus of that opportunity. For example, Proposition 1 is water and resilience focused, GGRF funds are GHG focused, etc. This should be a living document that is housed on the Adaptation Clearinghouse. This also makes me think about EO B-30-15. To what degree can the Council or ICARP be a mechanism to track what the state is doing?

Andrea Ouse: I agree with Danielle. In terms of utilization of a product like this, I would encourage making subject matter experts available. A matrix would not be helpful to communities with little resources. Every specific project is so different in term of funding applications, so it is difficult to find replicable situations. Again, I think we need real human resources rather than just a stand-alone matrix.

Jonathan Parfrey: To clarify, the LARC financing framework was an attempt to create a compendium of various strategies and was not meant to steer anyone towards a particular type of project or financing mechanism. It would be helpful to identify projects or adaptation strategies and then identify the funding mechanism, rather than the other way around. I am also interested in enhanced infrastructure financing and the use of Mello-Roos districts for adaptation financing. Insurance and federal dollars are also worth considering covering. In terms of Case studies, the NDRC effort is interesting, but suggest adding the current round of disaster mitigation funds available through FEMA and CalOES as a focus area or case study.

Steve Sanders: What is the outcome of the case study approach? Also, focusing on new money can be distracting, but what about the money we are already spending? EO B-30-15 raises a good point – how can we spend money more effectively on what we are already doing? Recommend that the framework start with "strategies" or projects and then identify potential resources, funding mechanisms, financing gaps.

Bruce Riordan: In support of Andrea's earlier comment, the framework and case studies would be more helpful if paired with subject matter experts that could provide guidance for communities that don't have an abundance of resources. This has come up in our work on the development of the AB 2516 sea

level rise database. People want assistance, not the database. I hope that this Council can push for that human resource aspect because web based databases and frameworks are only part of the solution.

> Louise Bedsworth: To be clear, we as a body do not have the ability to pay for those resources, but we can make recommendations. This is also helpful the development of the ICARP Adaptation Clearinghouse.

Jana Ganion: Every project is very unique, so it would be helpful to show successful examples of implementation of different funding types and the criteria and situation that make each of those examples successful. We should also consider tapping into databases such as DSIRE. We should capture case studies that demonstrate successful implementation of each type of funding source as well as combinations of sources. We should also consider including details such as costs and matching/leveraging requirements.

Sekita Grant: I also agree that we need human capital resources to help communities navigate funding opportunities and mechanisms. Capturing leveraging opportunities or requirements is also important. Is this just looking at public financing or private opportunities as well?

> Nuin-Tara Key: This captures both.

Sekita Grant: Does the tiered approach represent prioritization or are these separate tracks?

> Nuin-Tara Key: They are separate and do not represent priorities.

Brian Strong: The idea of a real person is great – a consultant could do this work. We should also include financing examples of larger comprehensive plans. Capturing piece-meal approaches to financing is okay and very common but this may cut off opportunities.

Kit Batten: Agree with Jana's suggestion about case studies, to this end maybe it's worthwhile to develop an FAQ type of document that guides jurisdictions as they try to navigate funding/financing options. Also, perhaps OPR could feature (via a low cost film) a city that has done something very innovative.

Danielle Bergstrom: In the context of local planning, specific details are more useful. We should match funding types to project types. I would also be curious to know if something has been done like this for Climate Action Planning (CAP) specifically. It would be interesting to see CAPs with financing plans that link implementation dollars to the CAP process.

Jason Greenspan: We will need a range of examples to make this accessible and relatable/replicable. We should also work to still convey urgency through this, and add that starting with small projects is okay – but include different scales.

Andrea Ouse: I agree with Danielle's point and would add that we should include funding roadmaps for completion of projects. Currently, Climate Adaptation Plans don't have implementation financing or funding chapters, and conversely most Capitol Improvement Plans don't include climate adaptation. This integration/coordination needs to happen within jurisdictions and should include tangible mechanisms for completion and prioritization.

Louise Bedsworth provided a summary of the discussion:
It does not seems like we are ready to take a very specific action but our staff can incorporate your feedback. One thing we can do is transpose the matrix so that the rows are examples of projects/case studies and the columns are funding mechanisms. This seems like it would be more helpful than having case studies that are spread over 5 or 6 funding tools.

PUBLIC COMMENT
(No Public comment was received by OPR staff).

COUNCIL ACTION
Action: OPR staff will incorporate feedback and host up to two Financing Workgroup meetings between the June and September TAC meetings. The Financing Workgroup should think through how the TAC and Clearinghouse can support this or other financing tools and products, and more specifically identify roles or work streams for the TAC and Clearinghouse.

Motion: Jonathan Parfrey
Second: Kit Batten
All: Ayes

6. Senate Bill 1: Adaptation Planning Grant – Kate White, CalSTA

Kate White gave a presentation on the SB 1 Adaptation Planning Grants:
Section 16321 (1) allows up to $20,000,000 to local and regional agencies for climate change adaptation planning. Caltrans will be developing a grant guide and administering the program. It will be a 3 Year Grant Program. The timeline is fairly quick – CalTrans is aiming to release guidelines and call for applications in September of 2017. There is time now and in a couple of months for input on the guidelines. CalTrans will be holding workshops in August for comments on the draft guidelines. The bill language is very general, so there is a lot of room for comments.

Questions for the group:
- What agencies should be eligible to apply directly? What agencies should be eligible as a sub recipient? Should there be a requirement for partnering?
- What is the most effective minimum and maximum award amounts?
- What should be included as required criteria in the grant applications? Scoring criteria? Recommended best practices?
- Are there adaptation planning best practices or good examples to include for reference?
- What role should the ICARP Council have in grant recipients reporting on the status of their grant activities and completion of the award?
- Should applicants be required to report on challenges and opportunities after the grant is completed?

COUNCIL DISCUSSION:
Bruce Riordan: Do these projects have to be transportation focused?

Kate White: there must be a transportation connection, but that is a minimum criteria. The project could go beyond that.

Bruce Riordan: It would be good if the transportation-focused projects had to show other benefits within the project area.

Jonathan Parfrey: Another criteria could be the requirement for a match or to ensure that those funds would complete a planning process.

Louis Blumberg: What about other funds coming out of this? Given EO B-30-15, I would hope that there would be a role for climate in rest of the funds.

Kate White: There is language in SB 1 to consider climate change in all infrastructure projects.

Louis Blumberg: Adaptation should be an added bonus or requirement for funding. We should also think about leveraging SB 379 requirements.

Brian Strong: Where a vulnerability assessment (CalTrans District or local) has been done, it should be a requirement to connect to the grant.

Jason Greenspan: It would be great to fund regional approaches.

Andrea Ouse: There shouldn't be a requirement for partnering unless locals can tier off MPOs. Local governments won't have that much interest in it if partnering is a requirement. Requiring matches is also difficult for resource poor communities. If there is a match is should be modest requirement or other funding opportunities should be eligible as matches.

Danielle Bergstrom: I understand the point about partnership, but think it is important (recalling back to the comment that was made during the vision and principles discussion on the critical need to coordinate adaptation efforts across jurisdictions). We should avoid being too prescriptive about which agencies can apply (ie. A local irrigation districts should be able to apply).

Jana Ganion: Agree on the importance of collaboration and partnership. Maybe part of program should allow funding for regional collaboration workshops one or twice a year. MPOs can help with this cross-jurisdictional coordination.

Sekita Grant: The process should be as inclusive as possible, and there should be partnerships with CBOs. The grant should prioritize the most threatened and under-resourced communities in California. This would ideally fund communities that have not already begun climate planning. Technical assistance also becomes important for areas that don't have resources and are unable to navigate funding applications. Leveraging is important, but requiring more than just a matching requirement may be cumbersome. Metrics are also important to measure progress and efficacy of work. California Climate Equity Coalition (CCEC) has good metrics for grant monitoring for climate and equity objectives. Reporting should also be accessible to the public.

Brian Strong: The grant should include extra points for partnering but not make partnerships required. That is the only way to get governments to do that work across jurisdictions or across community organizations. We should also support newer efforts and not penalize people for not having done work before. Also consider allowing flexibility for matches.

Laura: TCC program as example of a grant with specific requirements for building partnerships, community engagement, specific indicators and multibenefits. I second the point that was made around using thresholds to target areas that either haven't received planning dollars or are vulnerable or under resourced.

Steve Sanders: It is important to target funds to efforts that create awareness and build capacity around climate adaptation. Peer learning and knowledge exchange is also important and could be incorporated into the guidelines somehow.

Jana Ganion: We should have people talk about mitigation paired with adaptation. We could refer to EO B-30-15 and request that applicants do a small LCCA and show solutions to reduce GHGs.

Jonathan Parfrey: We should also think about standalone dollars for education purposes. One example of good transportation funding is a [Living Streets](#) project that is funded by the California Coastal Conservancy in [South El Monte](#) in Los Angeles.

Bruce Riordan: Building off of Steve's comment, $20 million is not a lot of money. We should consider making replicability the #1 requirement.

Danielle Bergstrom: We should think about including a criteria that focuses on economic and social impacts of adaptation.

Louise Bedsworth: A lot of ideas here have reflected principles from the vision and principles discussion this morning. I would like to bring back the question: what is the best use for this body as it relates to funding adaptation? Can we add value by being a venue for sharing information? We should create an action coming out of today's discussion of SB 1.

Kate White: One idea is to hold regional public forums to exchange best practices.

PUBLIC COMMENT:

Elizabeth Grassi: I would like to emphasize that looking at project type is important, and we should always make sure there is buy in from communities. To do this, require them to tell you about the plan and why it is important.

No Council Action taken.

7. Sea Level Rise Science Update and Guidance Document – Jenn Ekerle, OPC

Jenn Ekerle provided an overview of the recently released "Rising Seas in California: An Update on Sea-Level Rise Science":
An OPC-SAT Working Group was pulled together for this report. The document reports that sea levels are rising and the rate is accelerating. Sea levels are rising from ocean thermal expansion, land ice melting and loss of ice from polar ice sheets. Loss of ice from the Greenland and Antarctic ice sheets will soon become the dominant source of sea-level rise. SLR varies across the world given gravitational effects. Northern hemisphere will be more impacted than others (e.g. California SLR will be 1.25 inches

greater than the global average). This report separates projections from probabilities, which will be emphasized in the upcoming SLR policy guidance document.

In Summary:
- Scientific understanding of sea-level rise is advancing at a rapid pace. Periodic updates of Sea-level Rise Guidance will be necessary.
- The direction of sea level change is clear; sea-level is rising.
- The rate of ice loss from the Greenland and Antarctic Ice Sheets is increasing.
- New scientific evidence has highlighted the potential for extreme sea-level rise.
- Probabilities of specific sea-level increases can inform decisions.
- Current policy decisions are shaping our coastal future.
- Waiting for scientific certainty is neither a safe nor prudent option.

Questions for Council Discussion:
- How is the current sea-level rise guidance being used?
- What information should be included in the updated guidance to help users incorporate sea-level rise in their decision-making?

Bruce Riordan: What is OPC going to be communicating to the public about the next three or four years? There is clearly great uncertainty in the future.

Jenn Ekerle: The scientists chose to use probabilistic approach to make it easier to plan for the future and to update this document.

Kit Batten: OPC should provide guidance on which mapping tools to use. What models are better for what scales? Which downscaled data is best used for what? Many models are missing tidal surge, storm runoff, etc. If you can't point to just one tool, can you create a guide to all of the different ones?

> Louise Bedsworth: The Lifting the Fog matrix does that.
> http://coastaladaptation.org/liftingthefog/
>
> Jenn Ekerle: We are creating a standalone policy guidance document with a component that will discuss resources. We hope to answer specific sector based questions.

Jana Ganion: Many people are working on downscaled data all over the state that don't know about each other's work. Regional workshops to pull these people together would be helpful.

Jenn Ekerle: The current guidance is targeted for use by state agencies. It will integrate Coastal Commission work, BCDC work, and apply projections used by local communities.

Louis Blumberg: There has been funding for Local Coastal Plans (LCPs). We should integrate SB 379 into future funding. Also, how has State Parks been involved in this update? They are responsible for 30% of our coast.

> Jenn Ekerle: OPC has assembled a team that includes State Parks that meets quarterly. They are going to incorporate updated guidance into their work. We also had a meeting with CalOES to ensure that this guidance is being used in the State Hazard Mitigation Plan (SHMP).

Cara Martinson: From the local level, guidance is being used in LCPs and in permitting processes.

Louis Blumberg: What will the mortgage lending industry think about this? What is their comfort level with these different probabilities provided in the update?

> Jenn Ekerle: That is a good question also for insurance.

> Louis Blumberg: That would serve as a good measure of what is acceptable.

Keali'i Bright: My question for the group is how often should OPC be updating this guidance as the use of the guidance changes?

Jonathan Parfrey: At the last meeting, the notes indicate that Jenn said the state's previous guidance recommended using the top 2/3 of projections. Will that ever be codified into statute? There are pros and cons to providing one number. Is OPC moving in that direction?

> Jenn: We have been thinking about this for a while. We could potentially use a decision tree or a single number, but haven't decided. We welcome feedback on what works best for planning. With regard to legal requirements, this has more teeth now from SB 379. It will be required in LCPs.

Kit Batten: Is a range or number better to use? What about extreme events?

Jana Ganion: I think the ranges presented in this science update provide a good framework for locals to decide how to use the ranges in their local context. They can decide how and when to plan for the worst.

Tina Curry: We can compare this to earthquakes, which are addressed through code and have a forecast of a 90% chance in next 30 years that worst case might happen. That is helpful for decision-making. Is there potential to make this type of forecast?

> Bruce Riordan: Earthquakes are not comparable because it could be twice as bad with SLR. The problem arises in planning because the uncertainty is greater. It is such an emerging science – couldn't make that type of statement.

Jason Greenspan: How could this be used by locals also looking at FEMA flood maps?

Louis Blumberg: How should developers integrate this science into their local projects? It is important that coastal agencies bring in new guidance into decision-making process. CCC and San Francisco Bay Conservation and Development Commission (BCDC) should be incorporating this guidance into their permitting processes.

> Adam Fullerton (BCDC): For clarification, BCDC currently does incorporate these SLR numbers into our permitting processes and will be bringing the new guidance into our permitting process as it is released.

Louise Bedsworth: Let's say that in 5 years, the science hasn't changed but is there an opportunity to link the next guidance update process to the user side, rather than just waiting for science updates? We should be considering user-driven experiences as well when updating this guidance, not just science-driven.

Kit Batten: Without an additional level of regional governance, collaborative planning will not happen.

Jenn Ekerle: San Diego Climate Collaborative is gathering all jurisdictions around the bay, which is a good example of a regional approach. They have a smaller number of jurisdictions, though. BCDC is also moving in that direction.

Kit Batten: Yes, those are forward leaning parts of the state that have resources.

Andrea: Things like Regional Housing Need Allocation (RHNA) should incorporate this guidance.

(No Public comment was received by OPR staff).

8. 2017 Safeguarding Update – Keali'i Bright, CRNA

Keali'i Bright gave an overview of the Safeguarding California Update. Keali'i reviewed the State's efforts on adaptation, the three pillars of Safeguarding (local and regional action, state policies and programs, and research and resources) and the organization and development of the document. Keali'i encouraged individuals to look at the plan through the lens of someone trying to understand what the policy world is doing to address climate change.

On the horizon: CRNA will be working to release this guidance with the Fourth Climate Assessment. California is farther ahead on research side than on the policy side, but we need to help communities use the 4th assessment data in a meaningful way. We are also moving forward with the Climate Safe Infrastructure Working group which will look at integrating climate data into infrastructure design processes.

COUNCIL DISCUSION
Louis Blumberg: It is going to be a challenge for local and regional governments to apply Safeguarding to themselves. The EO B-30-15 TAG document will help. It will be helpful for locals to see the implementation of both of these documents at the state level.

PUBLIC COMMENT
(No Public comment was received by OPR staff).

9. General Public Comment – Louise Bedsworth, Chair

(No Public comment was received by OPR staff).

10. Meeting Adjourned