Integrated Climate Adaptation and Resiliency Program

Technical Advisory Council

June 29, 2018
Meeting Minutes

Tsakopoulos Library Galleria
East and West Meeting Rooms
828 I Street Sacramento, CA 95814
10:00am – 4:00pm

1. Welcome

2. Roll call

Louis Blumberg, Brian Strong, Andrea Ouse, Kit Batten, Kathleen Ave, Jonathan Parfrey, John Blue (alternate for Ashley Conrad-Saydah), David Loya, Tina Curry, John Wentworth, Nuin-Tara Key (chair, alternate for Louise Bedsworth), Jason Greenspan, Sona Monhot, Andrea Ouse, Joseph Wall (alternate for Keali'i Bright)

Absent: Kit Batten, Solange Gould, Louise Bedsworth, Elizabeth Rhoades

3. Approval of draft minutes (April 2, 2018)

DISCUSSION

Nuin-Tara opened the floor to voice any changes that needed to be made to the April 2018 meeting minutes or to motion for their approval

PUBLIC COMMENT
No public comment was received by OPR staff.

ACTION
Adoption of April 2, 2018 meeting minutes

Motion: Brian Strong
Second: Karalee Browne
Aye: All
Abstain: Tina Curry

4. Update on ICARP Adaptation Evaluation Framework and Pilot Application to the State Sustainability Roadmaps

Greta Soos updated the Council on the progress on ICARP's Adaptation Evaluation Framework and Evaluation Questions. The council was asked for feedback on the document outline for "Tracking Progress Overtime: State Sustainability Roadmaps Adaptation Chapters" and if there were other elements of the roadmaps they would like to see evaluated.

DISCUSSION

Brian Strong: Without knowing the different departments, I don't see how they are interacting with local governments. This is coming from a local government perspective. Is there a way we can talk about that in the document?

> Nuin-Tara Key: We have been trying to figure out how to pull that into the evaluation. We are only looking at their operations at facilities, not their full scope. That being said, we are coordinating with Safeguarding California implementation tracking as well, and aim to provide a comprehensive overview together.

John Wentworth: I agree with Brian's comment.

Louis Blumberg: I think this approach is good. Can you also include all of the departments that will be submitting? It doesn't look like this is the full list.

> Nuin-Tara Key: Yes, we will include a comprehensive list. The list provided in the current table of contents only includes who has submitted thus far.
>
> Matt Henigan: Departments that submit Sustainability Roadmaps either lease DGS owned buildings or own their own buildings.
>
> Louis Blumberg: Okay, it would be helpful to make this clear and include a description of any gaps there might be.

Joseph Wall: AB 1482 requires that CNRA provide an implementation report on Safeguarding California. Each sector is reporting on the progress of their sector actions. We want to get tracking update out in the fall and are planning to align our report with this evaluation.

Jonathan Parfrey: It is hard to get the "latest and greatest science" incorporated. Is there a shortcut for departments to use regional reports from California's 4th Climate Change Assessment? Perhaps this could be used in the next report? It would be good if the Tribal and environmental justice assessments from the 4th assessment could be used.

> Nuin-Tara: Regional reports can be a resource and we will continue to provide information to departments from Cal-Adapt.

Kathleen Ave: Regarding the maturity characteristics, it's an impressive framework. A general comment from me is that parts of it weren't quite ambitious enough. Generally, I think the action phase wasn't ambitious enough. In 'developing and standardizing' under funding and investments, standardizing should include active implementation and clarity of length and sufficiency of investment. Under coordination and collaboration, we should call out shared planning and investments. Under equity in the action phase, we should revisit this and look at Seattle and King County's examples, which presents innovative view of what equity/engagement should look like.[1,2]

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[1] https://www.kingcounty.gov/elected/executive/equity-social-justice.aspx
[2] https://www.seattle.gov/rsji/resources

Andrea Ouse: Are these facilities owned or leased?

> Matt Henigan: The focus is on owned facilities, but many departments rely on leased facilities. The data pulled from Cal-Adapt is for state owned property, but there may be critical facilities that are leased.
>
> Greta Soos: There are departments that submit strategies for leased facilities. The Department of General Services Sustainability Roadmap should also cover facilities that are leased by other agencies because they are the entity that owns them.
>
> John Blue: Having looked at how agencies complete GHG inventories, there are many leased facilities that are not DGS owned that are short-term uses. If there is a longer-term perceived need, that is one way to balance leased versus owned.

Louis Blumberg: Entering into a lease should be considered an investment especially when thinking of EO B-30-15. Leased agencies should be covered by this.

Jason Greenspan: In Southern California, we initiated an evaluation of transit agencies and providers to look at how they incorporate vulnerability assessments. As we think about taking this to the local level, we should include transit providers.

Brian Strong: I agree. There are other resilience-oriented considerations like seismic concerns. There may be a need for something to track our infrastructure and planning before we get into more advanced considerations.

Matt Henigan: For some context, adaptation is only one of five chapters that are included in each Sustainability Roadmap. Water, energy, green operations, and EV plans are the other four chapters, which respond to EO B-18-12. For some agencies, this is their first time looking at adaptation considerations. Using this year's evaluation and talking with the departments gives us an opportunity to improve the template for departments use.

John Blue: Some departments are not engaged in adaptation and it's a big lift for some to think about this. In considering leased facilities, we should look at the degree of importance of that facility if possible.

Jonathan Parfrey: There are agencies that are not thinking about climate impacts who need help. OPR should help them submit points that are actionable.

Nuin-Tara Key: We have talked about how to help agency partners implement EO B-30-15. As we get further with this evaluation, this could be an opportunity to work with these departments. This is an opportunity for us to connect departments completing Sustainability Roadmaps with Safeguarding agencies.

PUBLIC COMMENT

Grieg Asher: Is there similar work being done with other state entities (HSR, CSU, UC, etc)? Are there state entities that don't fall under the Executive Orders?

Nuin-Tara: Executive Orders only cover agencies under the executive branch. Signing another EO wouldn't cover those entities you mentioned, but this is not to say we couldn't partner with those entities.

5. Resilient by Design, final designs, next steps, and lessons learned

Allison Brooks gave a presentation on the final designs and next steps for the Bay Area Challenge. She reviewed several of the project designs and discussed lessons learned from the process.

DISCUSSION

Craig Adelman: Can you talk more about implementation and planning? Also, there are often sentiments of "improvement is something to fear" with regard to displacement. Were there lessons learned in those conversations?

Allison: We had a finance team to fund projects and each of the teams were charged with developing an implementation plan. During community meetings, we had the housing crisis at the center of most discussions. One of the things we are thinking about as a regional agency was how to give more resources to communities. For example, the City of Vallejo doesn't even have a long range planner right now. How do we support ongoing processes and build trust?

Jonathan: How many of your projects arrived shovel ready?

Allison Brooks: None did, but we are close to being shovel ready with most. We have received SB 1 funds for many projects and are still doing environmental analyses. The key to making the projects happen was getting stakeholders around the table together.

John Wentworth: What was inspiring to me was the integration of the natural environment. Have you looked at integrating urban landscapes in the natural environment? Often times other federal agencies need to be involved. What can the state do to make connections to natural resources.

Allison Brooks: The ART projects work within operational landscape units or ecoregions, not just jurisdictional boundaries.

Sona Mohnot: What drew me in particular was the intentionality in community members. I don't want to see that lost in the implementation. These teams will look for funding outside of RBD. How do you keep the community involved?

Allison Brooks: The teams learned so much and changed a lot after the design phase. Teams are continuing to meet with communities even after RBD funding. It is a good question, how do we continue to resource it? We need to figure out those resources to support those community members.

Jason Greenspan: Rebuild by Design was focused on disaster preparedness. It was always focused on SLR, and the next superstorm. In your process, was there a dialogue about urban heat island or drought or fire risk, and if not, do you find that there was a way to communicate this? In southern California, we are embarking on Adapt framework for the whole region, and are struggling to communicate the wide breadth of impacts that need to be considered.

> Allison Brooks: We focused on sea-level rise and housing crises. That's an interesting point because the fires in Sonoma happened during our outreach. Locations of outreach, however, didn't foster conversations outside of sea-level rise. Groundwater did come up though. In terms of climate change communication, I find the framing of multi-benefits and multi-hazards is useful.

Brian Strong: This is a great effort. Set a new standard for how we communicate with community. We tend to not fund community engagement as much as we should. A lot of what we learned in San Francisco is how to integrate pilot programs into existing projects as leverage. What is next step for RBD? Is the committee going to keep moving?

> Allison Brooks: We need to explore what our next steps are. For example, do we reach out to the state? We are writing a book that include all projects, our lessons learned and next steps.

David Loya: Are you putting out best practices for engagement in the book?

> Zoey Siegel: We are putting together an engagement toolkit to communicate risks and get input.

Karalee Browne: I just want to underline the importance of trust-building. This is often left out. This makes it easier for future plans.

Andrea Ouse: With regard to implementation, now that we are past design concept, who will move this forward? What about funding? Who is primary authority?

> Allison Brooks: There is a governance process for the project management over the years. We need to find more champions to continue these efforts. Our transportation systems are built almost entirely on the shoreline and are protection for the community behind them. Working with Caltrans would be beneficial.

Tina Curry: Will the book you mentioned inventory other projects and runner up projects?

> Zoey Siegel: The book will feature all other projects that didn't get selected from the teams.

PUBLIC COMMENT
No public comment was received by OPR staff

6. Finance Guide: "Climate Adaptation Finance and Investment in California"

Jesse Keenan gave a presentation on the finance guide: "Climate Adaptation Finance and Investment in California". The intended audience for this finance guide is accountants and public officials with some business literacy. Within the eight chapters, the book defines different types of resilience, details different adaptation strategies, evaluates different forms of funding for local jurisdictions, speaks upon social equity considerations, the role of the private sector, and advises the reader on climate services.

Nuin-Tara Key: We are making final revisions and will post this on the Adaptation Clearinghouse, ResilientCA.org. We are also looking into options to get print copies on demand. One of the key things that this Council provided direction to complete is provide an understanding of the landscape of current funding and financing options for state and local governments on adaptation projects. In addition to feedback on this guide, we would like to know the Council's opinion on developing a simple excel based tool for people to use.

DISCUSSION

Kathleen Ave: Your statement on the private market discipline over government regulation was provocative. Especially given that your private sector chapter is five pages. Can you describe this importance of the public-private partnership and what that balance should look like?

> Jesse Keenan: Public-private partnerships are not more important but provide more immediate results. It is hard to find a place where climate change doesn't hit our pocket books. There is a huge market opportunity for banks, markets, etc. There is a necessity of citizen participation for a tax base. It's really about mobilization for a willingness-to-pay for something. In my opinion, we need to think about the tax base and normalization of the distribution of income.

Jonathan Parfrey: On the subject of the tax base, there has to be market solutions. Does the book you're creating offer possibilities as to how private markets can become more engaged?

> Jesse Keenan: No, this is not specifically addressed in this book.

Jonathan Parfrey: With regard to your audiences, you might include philanthropy.

> Jesse Keenan: We consciously didn't include philanthropy. Their intentions don't always align with communities they are trying to help. They are just like any sector. We do mention, however, the history of philanthropy in California.

Louis Blumberg: I want to take it back to catastrophe and resilience bonds. Do you advise against them?

> Jesse Keenan: We do not reject or advise, we just explain things in detail. We just give an assessment of what applies and does not apply for local governments, and let them know what may work for them. Catastrophe bonds are geared to larger jurisdictions, not usually for your average or smaller local government.

Joey Wail: Could your figures on pages 10 and 11 be applied to this Council?

> Jesse Keenan: Perhaps more generally rather than the Council itself.

PUBLIC COMMENT

Question: What are your thoughts on value capture?

> Jesse Keenan: Value capture is usually relegated to land use planning. Australia is a model for public accounting.

7. Symposium Session: Investing in Adaptation and Resilience, Emerging Practices

Climate Risk and Municipal Bond Ratings

❖ **Leonard Jones, Managing Director, Public Finance Group, Moody's**

Leonard Jones presentation:
I was asked to talk about how Moody's incorporates risk of climate change into our credit rating services. First, a few takeaways are that we capture risk for both state and local government from a variety of factors; including their willingness to pay and their debt. It also depends on their exposure to a risk, and their resilience to that risk. And we also recognize that environmental risk is local.

A bit of background, I started working on a publication that was transparent on how we consider credit ratings about 2 years ago. For the most affected sectors in our portfolio, we were transparent on how we measured risk. In this publication, we talk about climate trends versus climate shocks. Climate trends are gradual changes in the climate, and climate shocks are extreme weather events: like hurricanes, fire, and other natural disasters. The relation between them is that climate trends increase climate shocks.

There is no climate change metric, so we look at several other metrics when looking at a local and state government's risk. Climate change does lead to negative credit implications. For example: increased property damage and supply chain disruption. For local governments, key metrics are the economy and tax base, finances, management, and debt and pensions. For state jurisdictions, we look at costal versus non-coastal exposure factors. Lastly, it is important to have resources in multiple jurisdictions to broaden response capabilities and enhance resilience.

QUESTIONS:

David Loya: I was struck by your mention of Florida. Could insurance programs have a potential for negative consequences?

> Leonard Jones: We don't just look at exposure. We look at resilience. If you are exposed and you aren't doing anything about it, credit quality would be worse. When we look at Florida's insurance funds, they are very healthy, but if they get more storms and have to pay out and their fund levels go down, it could negatively affect credit rating of Florida.

Brian Strong: How do you measure the government equity and governance and environmental justice that might bring instability to jurisdiction?

> Leonard Jones: That public finance issue already exists outside of climate change. Bad management gets lower scores. We would pay attention to the managements of those issues.

Brian Strong: Some see FEMA as the ultimate insurance policy. We don't have a credit rating of the US insurance policy, right?

> Leonard Jones: The United States is rated AAA. There has been talk of that changing. Right now, FEMA has not been changed. If FEMA is altered in the way it works, that would be a credit negative.

Jonathan Parfrey: Are other credit rating companies working on this?

> Leonard Jones: I haven't seen anyone else talk about a holistic view of this topic.

Jonathan Parfrey: You mentioned 86 sectors evaluated. Have only governments been rated to climate risk?

> Leonard Jones: All sectors are rated in similar way. Some of the most exposed entities are businesses (auto companies, utilities), and we started on these entities first.

Kathleen Ave: I am struck by how difficult it is for local governments to understand what steps they should take (types of plan, implementation, engagement, social infrastructure, etc). Can you talk about where you see that going? Are you able to be more prescriptive as to how we can improve our credit ratings?

> Leonard Jones: We cannot give advice because we are regulated. We are agnostic. We get as much data as possible, and then ask for their desired measure. However, we are trying to be very specific to issuers and constituents.

Jason Greenspan: Do you evaluate their long-term plans, or just what governments are doing in the present?

> Leonard Jones: Right now. If you have a plan to build a project, we do not take that into account.

Andrea Ouse: What if you have private property along a water front that a local government has little influence on? Does that weigh into the community's overall evaluation?

Leonard Jones: It depends. If you are talking about privately owned land that produces 60% of the property taxes for that city, yes it will lower credit rating. However, privately held land that is a small share of the city's overall tax base may not.

Kathleen Ave: What is the period of the ratings?

> Leonard Jones: Ratings don't expire but we give an outlook of 18 to 24 months. Ratings incorporate what will happen next year, but also incorporates the next 25 years

Concept: Establishing a sustainable revenue stream to support resiliency
❖ **Glenn Pomeroy, Chief Executive Officer, California Earthquake Authority**

Glenn Pomeroy presentation:
California is home of two-thirds of nation's earthquake risk. When you have homeowner's insurance, it is mandatory that you are offered earthquake insurance. It used to be quite cheap, until the 1994 earthquake. From then, insurance companies stopped writing homeowners insurance. This crisis created the California Earthquake Authority (CEA), a not-for-profit provider of residential earthquake insurance

We have many companies participating in CEA. Each entity pays to be a partner, and in turn, the companies sell our policy. CEA policies are growing; right now, we insure 1 million people. Unfortunately, that means 90% of Californian households do not have earthquake coverage.
CEA has been keeping a paying capacity to handle a 1 in 400 year earthquake, which requires CEA to purchase a tremendous amount of "reinsurance." If we continue the growth CEA currently has, paying

capacity would need to double over the next 10 years What if we surcharge (1-2%) all Californians in case of 400 year earthquake? It would save CEA millions of dollars per year. CEA would like to propose investing these savings into funding adaptation measures across California.

QUESTIONS:

Joseph Wall: How do you communicate the intersectionality of climate and earthquake risk?

> Glen Pomeroy: If they are willing to pay a small fee, we'll pay for it. We don't think it's necessary to communicate this intersection, however.

Craig Adelman: The statistic: 90% of California is uninsured for earthquake coverage is alarming.

> Glen Pomeroy: We're working on it. It could get better if the State mandates it, but right now, we have to make the voluntary market move.

Louis Blumberg: This question is for Leonard Jones, if California were to implement this [surcharge], would the State's rating go up?

> Leonard Jones: I don't think so because the share of policy holders (and economy) is so small.

> Glen Pomeroy: This concept has been vetted by insurance agencies and it isn't anticipated to affect our rating.

Making an Economic Case for Resilience, Practical Applications in California
❖ **David Batker, President, Co-Founder and Chief Economist, Earth Economics**

David Batker presentation:
Earth Economics looks at the value of natural capital. It is important to account for this because most of our population lives in these natural systems. There are five types of capital: financial, built, social, human, and natural; and it's important to integrate them in your decisions.

Ecosystem services are the benefits people derive from nature. How do you quantify this? One type of ecosystem service is from watersheds. For example, after Super storm Sandy on the East coast: Governor Chris Christie declared the drinking water unsafe, while Governor Cuomo said it was safe to drink the very next day. And there are case studies of funding mechanisms for ecosystem services. They work because there are multiple benefits. Every landscape will have a different suite of funding mechanisms –for federal, state, regional, etc. Partnering both state and local bonds with resiliency bonds is effective.

Kathleen Ave: Is GASBY62 the same rule that allows water districts to support conservation measures?

> David Batker: Yes, that is our report with Water Now.

Craig Adelman: What you are seeing with the intersection with health?

> David Batker: We are looking at finances in hospitals. From there we can get to insurance industry and some other things.

Tina Curry: What is your sense on investment on pre-disaster mitigation?

> David Batker: I am happy to say there is finally progress. We would save millions of dollars if we had pre-mitigation investments.

PANEL Q&A:

Jesse Keenan: Leonard, how do you as an organization keep up with climate data? What do you do to incorporate the best available science?

> Leonard Jones: We've developed a team, created over a year ago with 15 people on these issues. We're constantly being pitched by companies that have data that they think we should use. It becomes an issue on how to validate these data; in some cases, when we find an entity that has reliable data and information, we may elect to purchase them.

Jesse Keenan: Glenn, what is the consumer-cost burden at a 1% surcharge? How would you spend and distribute this?

> Glenn Pomeroy: It's about $1000. It would be helpful to have a sub-committee within TAC to help discuss potential for these funds and educate me about projects that are in need of funding.

Jesse Keenan: David, It's difficult for some people to realize the importance of ecosystem services. Any communication takeaways help people understand the importance of ecosystem services?

> David Batker: Community engagement. Being in-tune with your community and what their concerns are. This takes a lot of outreach! Also, discount rate is crucial. The Office of Management and Budget is divided, thinking about a split discount rate. Natural solutions take a lot of patience towards beginning; gray solutions take patience towards end. (Sediment buildup v. eventual degradation of a levy).

Jonathan Parfrey: There is a lot of potential for avoided costs for LADWP. What are the financial tools for us?

> David Batker: You have to have the accounting right. Thinking about this in a large scale is helpful. There are two possible tracks: natural capital (20 year process); and using existing accounting rules and applying them to natural capital. If we don't take account our assets before disaster, it won't be worth anything.

Kathleen Ave: I would like to propose an action to help develop Glenn's concept. The Council should provide input on this via the financing workgroup.

John Wentworth: I would also like to include David Batker's idea in this effort.

> Nuin-Tara Key: We can convene a working group to help brainstorm needs and work with Glenn to make sure information is useful. The Council cannot take a position on potential future legislation.

ACTION:
Proposed Action – convene the financing workgroup in August to identify projects that would benefit from investments.

PUBLIC COMMENT
No public comment was received by OPR staff

Motion: Kathleen Ave
Second: Jonathan Parfrey
Aye: All
Abstain: None

8. GENERAL PUBLIC COMMENT

No public comment was received by OPR staff.

9. MEETING ADJOURNED