

Integrated Climate Adaptation and Resiliency Program  
Technical Advisory Council Quarterly Meeting  
December 11, 2020  
Meeting Minutes

Zoom Video Conference  
9:30 AM – 3:30 PM

Item 1 | Welcome and Roll Call

Present: Jacob Alvarez, Karalee Browne, Christina Curry, Grant Davis, Laura Engeman, Jana Ganion, Jason Greenspan, Amanda Hansen, Nuin-Tara Key, David Loya, Dan McDonald, Sona Mohnot, Darwin Moosavi, Andrea Ouse, Jonathan Parfrey, Michelle Passero, Heather Rock, Heather Hickerson (Alternate for Lauren Sanchez), Mark Starr, Brian Strong, Gloria Walton, John Wentworth

Absent: Tom Collishaw, Wilma Wooten

Item 2 | Approval of Draft Minutes

DISCUSSION

Nuin-Tara Key opened discussion for review of draft meeting minutes from the [6/26/2020](#) and [10/2/2020](#) meetings.

ACTION

Councilmembers voted to approve draft meeting minutes from the June 26, 2020 meeting and October 2, 2020 meeting.

Brian Strong motioned, Andrea Ouse seconded.

Aye: Nuin-Tara Key, Jacob Alvarez, Karalee Browne, Christina Curry, Grant Davis, Laura Engeman (10/2/2020), Jana Ganion, Jason Greenspan, Amanda Hansen, David Loya, Dan McDonald, Sona Mohnot, Darwin Moosavi (6/26/2020), Andrea Ouse, Jonathan Parfrey, Michelle Passero (10/2/2020), Heather Rock (6/26/2020), Mark Starr, Brian Strong, Gloria Walton

Abstain: Laura Engeman (6/26/2020), Darwin Moosavi (10/2/2020), Michelle Passero (6/26/2020), Heather Rock (10/2/2020), Heather Hickerson

PUBLIC COMMENT

None Received.

### Item 3 | State Agency Report Outs

State Agency Council members provided updates on state adaptation programs and efforts.

Christina Curry (CalOES):

- Opportunities through the Federal Disaster Declaration to invest in wildfire resilience from FEMA Hazard Mitigation funding.
- Lori Nezhura is taking over as Deputy Director of Preparedness.
- Published the [Adaptation Planning Guide](#) (APG) this summer and integrated it into the Adaptation Clearinghouse with ICARP support. Now supporting local uptake.
- Funding LHMP updates, and will use this process to evaluate the use of the APG.

Amanda Hansen (CNRA):

- Based on Executive Order (EO) [N-82-20](#), CNRA is moving forward on biodiversity, carbon sequestration and climate resilience through nature-based solutions. This includes initiating a pathways document and public process for the 30 by 30 lands and coastal waters, due by February 2022. The Natural and Working Lands Climate smart strategy will clarify how we will accelerate action in this sector long term. Both strategy documents will be interlinked.
- Coordinating internally to begin updating the [State Adaptation Strategy](#) early next year.

Darwin Moosavi (CalSTA):

- Implementing the transportation infrastructure and investment portions of EOs [N-19-19](#) and [N-79-20](#) to reduce transportation system greenhouse gas emissions (GHGs), vehicle miles traveled (VMTs), and climate impacts. Releasing a draft implementation action plan in 2021 and will continue public engagement via workshops. The draft actions target opportunities for CalTrans and the CA Transportation Commission to initiate planning and project programming to account for GHGs and physical climate risk related to project investments.
- Exploring a partnership with the Coalition for Climate Resilient Investment ([CCRI](#)) to develop a case study of an asset level risk analysis for a potential California transportation project.

Heather Hickerson (Cal EPA):

- Governor Newsom appointed Leanne Randolph as CARB Chair.
- We are launching an update to the AB 32 [Scoping Plan](#) with the carbon neutrality by 2045 goal.
- Releasing a draft updated [CalEnviroscreen](#) for public comment soon.
- Water Board Division of Water Rights was directed in 2017 to identify data needs and make recommendations on regulatory and policy changes to account for climate change when conducting water availability analyses and has developed a report to assess issues and actions that could support an effective water rights response focusing on incorporating climate change in water rights permitting. Will be released in late December or early January at a public meeting and on their climate change [web page](#).

Mark Starr (CDPH):

- Governor Newsom appointed Tomas Aragon as CDPH Director.
- Office of Health Equity climate team is working on an equity playbook to help counties achieve better COVID-19 test positivity rates in their lowest performing census tracts. We have a [web page](#) with COVID-19, climate and health equity resources.
- Now have a larger standalone climate change unit led by Linda Helland. This includes collaboration with the Local Health Officers Association, and CARB/CalEPA on climate priorities.
- Coordinating a health workgroup of the state Climate Action Team and have been working with CARB to assess and expand the tools, methods and benefits of climate change air quality programs, such as [guidance, research and tools](#) for communities impacted by wildfire smoke.

Nuin-Tara Key (OPR):

- Welcomed Juliette Hart, Sarah Samdin, and Taylor Carnevale to the team.
- Working with CNRA to scope the adaptation strategy update and leverage ICARP, the TAC and our resilience metrics work.
- Rebuilding interagency climate resilience coordination.
- Next year, formally begin building a vulnerable communities platform, thanks to a Hilton Foundation grant for OPR staff capacity, and Sona Mohnot (Greenlining) and Ameer Raval (APEN) others who are helping ground this work in community experience.
- Work on the climate finance priorities announced during Climate Week begins in 2021: CA has joined [CCRI](#) and the Governor has called for an advisory group for disclosure of climate risk in investment decisions, building on the Task Force for Climate-Related Financial Disclosure ([TCFD](#)).

- Place-based conversations and more direct regional topics is a priority for next year.

## DISCUSSION

Jana Ganion: Darwin, in our region we see significant need for greater resilience and GHG reductions for transportation projects to have extra conduits and other infrastructure for other utilities like broadband fiber or undergrounding of powerlines. We need that alignment of needs and projects in the same rights of way to reduce costs and speed implementation. This aligns with EO [N-73-20](#) under deployment section #7 where it requires transportation projects to identify and incorporate installation of conduit into all feasible projects alongside strategic corridors. This is climate smart adaptation. Heather, what work is being done for CalEnviroScreen to incorporate criteria with better application to tribal and rural areas? Currently it includes cardiovascular disease but not diabetes, pesticides (agriculture) but not herbicides (forestry), solid waste site facilities but not illegal dumps, poverty but not Low Income Home Energy Assistance Program or government food subsidy recipients. It does not include unemployment, drug and alcohol addiction or spousal and child abuse. It does not include cancer rates. It does not include substandard roads, rate of vehicular accidents and deaths, lack of access to utilities including telecommunications and distance to healthcare and hospitals. All these are prevalent conditions in many tribal nations in California. Data sets to access are Bureau of Indian Affairs, Housing and Urban Development, the Indian Health Service, and California Indian Manpower Consortium.

Darwin Moosavi: Thank you for highlighting the broadband need. This is very front of mind for our work. Given the scope of the executive orders, much of the action plan points to other efforts. **We're working on the broadband EO.**

Heather Hickerson: Thanks for those points. I would love to share those specifics with my colleagues who are working on the updates.

Heather Rock: Pleased to hear OPR is working with Greenlining and APEN on the disadvantaged communities (DAC) platform. It's important to have metrics for how we access this information and define DACs. The CPUC directed investor-owned utilities (IOUs) to conduct climate vulnerability assessments and engage with DACs in their service territories before, during, and after. CPUC issued its own [definition](#), and IOUs are required to post DAC locations on their website. It would be great to sync this map with the OPR map to avoid confusion.

Nuin-Tara Key: The CPUC rulemaking has informed our thinking and highlighted the need for this work. Just a clarification, this is a vulnerable communities platform, distinct from the CalEPA CalEnviroScreen tool for

identifying DACs that informs investment through cap-and-trade. Our platform will allow users to understand factors driving vulnerability and overlay information from other tools.

Jonathan Parfrey: Mark, does CDPH have a climate strategy/action plan?

Mark Starr: Staff are working with Community Services and Development on the AB 1232 long term weatherization program, and with CARB on a recently published healthy mobility options [tool](#) based on the Integrated Transport and Health Impact Modeling Tool. We support climate coordination and planning across the department relating to other program priorities like vector borne disease, wildfire exposure, and drought. We work with tribes, and local jurisdictions on local resiliency, including funding sources. Thanks to Linda Helland who leads much of this.

Nuin-Tara Key: Next year we can always leverage these meetings as an opportunity to hear updates on the work your team is doing.

Jason Greenspan: From the Southern California perspective, I am happy to hear about CNRA and CalSTA's EO implementation work. We just adopted a regional transportation plan which has multi-billion dollar investments in transportation infrastructure in our region and the whole point of our sustainable communities strategy is to balance land use decision-making and conservation opportunities in our transportation investments. Darwin, as the state moves forward with a climate action plan for transportation investments, how can regional agencies and counties be involved in that process?

Darwin Moosavi: For coming up with the actions, we've had a process underway including a survey and a workshop aimed at the transportation agencies that deliver these projects, and this will continue when the draft is out with a follow up workshop. Once we've adopted and begun implementing the plan, the plan will call out key areas. We'll need regional working groups and coordination with state, local and regional agencies on GHG reductions, equitable pricing solutions and planning pathways for transportation, roadway pricing, removing legislative barriers and creating pathways forward for implementation of the strategies.

David Loya: Amanda, we struggle locally with capacity to purchase easements and/or lands to support the nexus of local land conservation, infill land use policies, and climate adaptation. Is there any implementation ideas or funding, coming from CNRA?

Amanda Hansen: Conservation easements are a critical tool. There are challenges associated with various kinds on various landscapes. Jennifer Norris, Deputy Secretary for Biodiversity and Habitat is behind developing

our 30 by 30 pathway. We will explore this issue with stakeholders this next year. **We've been discussing** different tools and their roles. If there are specific near term issues, I would point to paragraph five of the EO which is the action agenda of five pillars: Forests, wetlands, agricultural soils, urban greenspaces, and land conservation. CRNA and OPR staff are leading the charge for identifying opportunities to build on what is already being done. We can follow up with information on who is leading each pillar so you can engage. I'm leading the forests and urban greenspaces and would love your comments.

Nuin-Tara Key: We can share these to the group and add to the minutes. There's work through the Sustainable Agricultural Lands Conservation program (SALC) and SGC and DOC that we can learn from, they're also involved in this effort. At the upcoming SGC Council meeting there will be a SALC presentation and proposed awards.

Jana Ganion: Relative to the definition of vulnerable or DAC communities, the SB 350 disadvantaged communities advisory group (DAC AG) created a [DAC definition document](#) that they advocated for use by the CPUC and CEC in their programs and policies.

Gloria Walton: Excited to see our commitment to serving vulnerable, disadvantaged and frontline communities. I want us to leverage our advantage of having interagency engagement and access across the local and state level to invite engagement from other organizations representing Black, Indigenous, Immigrant, and People of Color (BIPOC) communities across the state, in addition to appreciating the partnership from Sona from Greenlining and Amie from APEN and trusting their leadership. I'd also like the TAC to define equity to set precedents for state and local levels; investment and strategies aren't matching with its meaning. We need targeted strategies and overinvestment in communities that have been underinvested in. We need equity metrics and standards for us to hold ourselves accountable, and identify areas for overinvestment so we can level the playing field. This is coming up in many different spaces.

Amanda Hansen: Gloria I appreciate your comments and support this suggestion to help us escape the silos of all these processes. As we've been thinking about implementation of the EO and nature-based solutions, we heard from stakeholders clearly that we need to build in equity early and up front, **and we agree it's important**. We need to consider how to achieve 30 by 30 and use our landscapes to protect communities from climate change impacts equitably.

Sona Mohnot: APEN and Greenlining have been working closely with OPR and other agencies to envision the mapping tool. **We're forming a** community advisory committee to drive the vision and make sure there's diverse representation from Black and Indigenous communities. While data can provide us with a lot of information it **doesn't provide** the whole story, and we need to supplement it with stories from communities hit hardest by impacts and receive their input to inform the mapping tool.

Nuin-Tara Key: Gloria, to your point on defining the metrics, standards and definitions, I agree, and we are trying to move as a state across all these efforts to coordinate in a clear, concerted, transparent way that is reflective of the lived experience on the ground. One opportunity in addition to the development of this platform and the partnership with the advisory committee, is to think about equity in the state's adaptation strategy and our resilience metrics work, and bring in broader engagement on these through the Council and our networks.

Gloria Walton: I want to emphasize that **we're clear on DACs and frontline communities**, but it's equity that we need to define. Glad to hear from Sona about who will be at the table to shape the tool. In thinking about investments and strategies and leveling the playing field, we need to start first in these places that have been underinvested in and overinvest in them. I want to push us further on equitable strategies. We can set a precedent that can translate to other state agencies and localities.

Mark Starr: I **appreciate your comments. We're talking about going** beyond equality and overinvesting in order to achieve equity and address the climate impacts on these communities, which is part of the reason our climate program is in the Office of Health Equity. We coordinate with CalEPA and we've formed a group to examine the various indicators and indices for defining and locating DACs such as CalEnviroScreen and the Healthy Places Index (HPI). Our pandemic response equity playbook and metric is based on the lowest quartile of communities in a given county from the HPI. Counties have funding dedicated towards addressing this across their census tracts. We hope the playbook will be public soon. We have many short-term measures for supporting more testing and social services for isolation. We also have middle and long-term strategies, examples that have worked elsewhere, and a menu of implementation actions to address access to housing, multigenerational housing, crowding, transportation, community engagement, communication, and cultural and linguistic approaches. This is an opportunity to bounce forward and use the pandemic to address long standing inequities that cause health disparities.

Nuin-Tara Key: We appreciate everyone's input and questions in response to state updates, which will be a standing item at these meetings moving forward. We will incorporate many of these comments in our 2021 priority scoping.

#### PUBLIC COMMENT

None received.

#### Item 4 | ICARP Updates

ICARP staff provided programmatic updates on the Adaptation Clearinghouse, a recently awarded FEMA CTP grant, and the ICARP Prop 84 Wildfire Grants.

Nikki Caravelli:

- 2020 APG integration and Adaptation Clearinghouse website update is working as intended
- Will be hosting a series of APG technical assistance workshops in 2021.
- Building a series of how-to and use-case videos to support user access and navigation on the site.

Sarah Samdin:

- FEMA Cooperative Technical Partners (CTP) Community Outreach and Mitigation Strategies (COMS) Grant has two goals: coordination and development of two flood risk mitigation pilot projects that meet FEMA Hazard Mitigation Assistance (HMA) eligibility criteria, and a risk mitigation project database feasibility study for the Adaptation Clearinghouse. It also involves technical assistance to align FEMA funding with state programs.

Juliette Finzi-Hart:

- Proposition 84 grants will provide wildfire resilience and recovery grants to 4 fire-affected communities: City of Moorpark for a climate change vulnerability assessment and general plan update; Sonoma county, for forest resource management efforts and an ordinance update; Town of Paradise for a firesafe plan and infill development; and Ventura County for a general plan update and emergency response plan.

Nuin-Tara Key:

- All of the above demonstrate how we are providing resources to local partners through more direct technical assistance and support across multiple areas.

## DISCUSSION

Karalee Browne: I echo the comment that these are small but mighty grants. The Institute for Local Government was part of the Town of Paradise and Ventura's grants. Both would not have done these planning efforts without these grants.

Michelle Passero: Will the flood risk mitigation projects include co-benefits like carbon sequestration?

Nuin-Tara Key: We will explore this through this process. We're working with CalOES. We are interested in identifying pathways to aligning state and federal dollars to drive on climate goals. There has to be a flood nexus for this effort, but we can think about other benefits to these pilot projects. Given FEMA's priority areas of soil health and urban greening they can help us drive on climate mitigation goals.

## PUBLIC COMMENT

None Received.

### Item 5 | **OPR's Wildfire Hazard Planning Technical Advisory**

OPR staff provided an overview of the recently released OPR [Draft Wildfire Hazard Planning Technical Advisory](#) (TA), including an overview of the public comment process.

Beth Hotchkiss (Assistant Planner): I start with a land acknowledging that in Sacramento we sit on Nisenan tribal land. Today we're grappling with a history of tribal prescribed burning, Federal fire suppression practices, climate change, and development in the Wildland Urban Interface (WUI), a high-risk situation, and increased incidence and severity of wildfires and corresponding costs. We need a better framework for wildfire resilience.

Erik de Kok (Program Manager of Planning and Community Development): OPR staff initiated the Technical Advisory (TA) update in alignment with statute from SB 901 and AB 2911 to update it with land use strategies to reduce wildfire risk for buildings, infrastructure and communities every 8 years. The goal is to provide more meaningful and technical guidance on specific issues. We built on ICARP work and the Adaptation Planning Guide to update the first 2015 TA to incorporate resilience, climate equity, and vulnerable communities' needs. We consulted Cal Fire, CNRA, the Attorney general, many agencies, special fire districts, and others. The TA outlines the research, scope and scale of the state

wildfire problem; includes regulations and policy that shape land use development, planning tools and incentives, and other background.

Beth Hotchkiss: It outlines planning processes, technical tools, and outreach and engagement methods for wildfire planning.

Erik de Kok: It also covers reducing risk to existing communities and existing development via home hardening and land use strategies, from landscape to community to project level, address adequate ingress and egress, alignment between efforts, and evacuation and emergency response. Included are examples and resources such as planning tools, capacity building and support programs, funding programs, and local hazard mitigation plan linkages.

## DISCUSSION

John Wentworth: Mammoth Lakes has lived through this process and a general plan update, using the Community Protection Against Wildfire ([CPAW](#)) program by Headwaters Economics. Any jurisdiction can apply for a TA grant for Wildland Urban Interface (WUI) issues, and general plan/code update conformity. We have the ongoing Creek Fire this year. Our WUI is federal lands so the shared stewardship agreement between the USDA Forest Service and California is critical. We have some important opportunities with the Biden administration coming in.

Michelle Passero: Are you considering additional co-benefits of changes in land use, such as infill development, less building in the WUI, and vehicle miles traveled (VMT) reductions, in addition to fire risk?

Erik de Kok: Yes, we recognize and highlight these co-benefits in the guidance and think about how hazard mitigation to reduce risk and increase resilience helps us meet our overall state planning priorities for compact development and VMT reductions.

Jason Greenspan: The focus on defensible space and existing communities is valuable. In the guidance do you address the potential for friction between increasing urban forest and tree canopy within the WUI and defensible space? We wrestle with this type of guidance and want to avoid a maladaptive space. Many properties are clearing trees, which runs contrary to the cities' goals to increase urban tree canopy.

Erik de Kok: We do acknowledge places where there may be tradeoffs to reduce wildfire risk in different contexts. Understanding where to prioritize tree planning or not, especially edges of the WUI, might require special modeling or understanding of wind patterns. There may be other areas

that are less vulnerable, where the benefits of trees outweigh the risks. This is a local issue to recognize these tradeoffs but we'd love to hear how folks navigate them.

David Loya: Regarding the nexus between land use planning, infill and avoiding the WUI: perhaps we could recommend including WUI as a required planning component of Regional Housing Needs Assessment (RHNA) and Council of Government (COG) and local government housing considerations, to drive infill planning and resolve multiple adaptation requirements. For example, since Humboldt County has a large portion of jobs, it has the lion's share of the housing allocation even though most of the county is in the WUI. Are there ways to develop building practices that have multiple adaptive results and make structures more resilient, i.e. incorporate reflectivity, fire hardening, etc. into building codes? In Arcata, we have a lot of WUI but not high fire risk currently. How do we build now to be resilient to future fire risk as our building stock increases?

Erik de Kok: We've been engaging with HCD and the building standards commission on these issues, and CalFIRE is very actively engaged. The **guidance isn't for building codes**. The policy principle here is the precautionary principle: local governments can adopt more protective codes and standards, and that can be a policy commitment in an adaptation strategy, a general element, etc. We made sure that the message was clear and pointed to examples where agencies have taken initiative. The Orange County fire Authority goes above and beyond the defensible space standards; there are other communities that have decided to adopt their own supplements to the WUI code to make them more protective in elevated areas of risk. We appreciate this comment and are looking for guidance on how to approach this topic in planning guidance.

Andrea Ouse: I concur with David in terms of RHNA allocations. In the Bay Area **we're going through** the methodology for assigning our 400,000 units. The methodology has resulted in more units given the factors the committee used, the methodology also considered allocating more units considering equity issues. Many units in the next planned period will be in areas of the WUI or unincorporated County areas that have transportation and infrastructure challenges. Some are, by voter approval, in areas where there is an urban growth boundary. We have some significant tension points moving forward. If there could be some factors that are baked into the next round of methodology that remove discretion from the equation this may help, since we have to balance planning for specific sites that can accommodate exponential amounts of units to address the overall housing emergency we have in the state. We should

remove discretion from local authority. Whether it's RHNA, climate adaptation, or general planning updates, there's always going to be a political tapestry that influences those individual decisions; removing this may achieve more balance, effectiveness and consistency in addressing these issues. I am also interested in seeing the building codes remove local discretion; there is tremendous amount of variation in local amendments to uniform codes.

Erik de Kok: We've heard this issue throughout our process about the tension between the need to build housing and wildfire resilience. We should consider what tweaks do we make to the regulatory environment, what guidance do we give to the general plan, how do we guide people through these local decisions? While a good idea, taking local discretion away is difficult to do right now.

Jana Ganion: Here is a [map resource](#) for viewing California fires.

Nuin-Tara Key: All materials are on the site, comments are due by Friday December 18<sup>th</sup>.

#### PUBLIC COMMENT

None Received.

[Lunch Break]

#### Item 6 | ICARP TAC Workgroup Updates

##### A. Insurance and Natural Hazards: California Climate Insurance Working Group (CCIWG) and ICARP TAC Partnership

Nuin-Tara Key: This afternoon is focused on next steps on council work group meetings. To recap, we will be updating the state adaptation strategy in 2021; and we've talked about the need to develop resilience metrics to track our progress over time, and feed into this draft update. We are joined today by CDI partners for an update on the insurance work.

Juliette Finzi-Hart: The Insurance subgroup is focusing on the challenges at the nexus of insurance, climate change and natural hazards. The first workgroup meeting was on June third and the group decided on a three-step process, which Michael Peterson will explain, along with the proposed products and next steps. Deborah Halberstadt, Senior Climate Policy Advisor, is also online.

Michael Peterson: We used TAC documents and identified goals for the subgroup: communication, building the scaffold for working together long term, including a short [insurance primer](#) for how insurers operate, approach climate risk, level and scale, and change over time. The primer builds a common language for us to identify opportunities. The subgroup identified a number of questions that have to do with how insurance works in the state and how it might be applied to landscape scale risk mitigation. These seem the most critical questions for a short, condensed primer that is understandable and usable to a wide audience. Step two is a Planning Primer. Once these are both built, we can create a crosswalk for opportunities, data, research needs and new projects. The working group will meet in the winter and the spring, and present at the TAC spring and summer meetings.

## DISCUSSION

David Loya: To what extent do insurers consider equity and social justice? I **assume they don't; insurance looks at meta level considerations and don't dig** into the implications of that analysis. Perhaps there should be a follow up question about what policy can shift to consider impacts on vulnerable communities and communities of color that are disproportionately impacted by climate change. If insurers are making decisions based on local jurisdiction actions, jurisdictions **that don't** take action will have communities impacted by that. So I would suggest a follow up question to address those issues.

Michael Peterson: Pricing is based on cold hard facts. The products that are made available to the public is discretionary. International companies have commitments to meet the sustainable development goals of UN to alleviate poverty, etc. A few questions are how well is that going to work? How broad are they? Is there a regulatory piece needed? What types of products and how are they priced? Both pricing and product availability have equity considerations.

Brian Strong: I like the primer, I'm looking for more details and information. **How insurance is priced needs to be understood: why aren't insurance companies recognizing the benefits of equity since it could impact the bottom line of properties they're insuring or other priorities?** Could we get a little more detail? **The industry has access to data that others don't, but if communities had access to that information and transparency we would better understand how decisions are made and how inequities are perpetuated.** We talked with your office, the Nature Conservancy and others about capturing the future value of resilience and equity work. There are nature-based solutions where you can capture that value and bond against it. Insurance has much to gain from these investments, so we need real products to help us get to these priorities.

Michael Peterson: **You'd like** more detail on how insurance is priced, and why some things are included and some things are not?

Brian Strong: Yes, and have examples of where the Insurance Commissioner has had to step in where there would not be insurance.

Michael Peterson: **We could tie those things together.** Often what's included in pricing is discretionary to the insurance companies. My department assesses **if that's justifiable as long as they meet regulations.** I can frame this in a way that is hopefully helpful.

Jana Ganion: This is exciting. All of us are eager to understand the opportunities that the insurance industry can contribute towards a just and manageable transition to our built environment. We are racing to keep up with climate risk factors, both for insurance and general operations. Can we put a section about more of the specific climate risk factors, tools and thresholds insurers use that we should be considering? Insurance has been affordable, and now that it's not available, there's no incentive to drive climate smart behavior and outcomes. What can insurers do to support climate smart adaptations and reduce GHG emissions in a way that is meaningful to insurers' bottom lines and how we live?

Michael Peterson: Achieving a gradual transition is difficult. There are a lot of short-term issues: insurance contracts tend to be only for one year so they tend to only reflect the next year. Maybe this requires a longer look at the situation, if not a longer contract.

Jana Ganion: There could be a slate of risks, or potentials that would increase rates, and a slate of adaptation measures that would qualify for **discounts on those rates, informed by big disasters we're seeing and other data.** Maybe bifurcate the annual renewal from the underwriting risks and mitigations.

Nuin-Tara Key: Jana we appreciate your comments. We are trying to drive alignment and make sure local governments and people are aware of what those actions are to reduce risk and make sure insurers reflect those in their pricing, and in order to do that we first need this primer to then get there.

Juliette Finzi Hart: Switching to the planning primer, what would insurance folks need to understand? Any initial thoughts on what is important to include in this?

Jason Greenspan: The decision-making process for local governments, the upstream planning process, and zoning processes. What local governments think about when initiating a planning process for an area or a specific planning proposal. The insurability and the costs of insurability are likely not in their

consideration. If there are any jurisdictions that do consider the cost of insurance up front that would be good to know. Normally it's just passed down to the user.

Laura Engemen: From a science perspective on how various metrics or observations can fit into risk management, there are a lot of climate models for uncertainty on sea level rise. Reducing uncertainty provides risk probability percentages which probably feed into these calculations about how much risk they're willing to manage, and with advances in regional and downscaled climate models we can have this solid conversation. Planning may not be the avenue for this since risk management is often taken on by the construction and CFOs in agencies. When it comes to capital improvement, all these things have a risk calculation that is tied to their capital investment plans that are also on a timeline aligned with the planning documents. These need to be reconsidered. When looking at adaptation, **we're calculating the costs and benefits** across proposals but also against no action; this should play into insurance. We have to use no action as one of the options.

Nuin-Tara Key: In addition to the long range planning space the asset investment space could be part of this primer.

Laura Engemen: We **don't** want to change the planning horizon, based on how long it takes to get the financing and permitting, and the lifespan and resilience of that asset. That conversation needs to happen first.

Jonathan Parfrey: The California Earthquake Authority has a robust program to protect homes against earthquakes based on a model of insuring ahead of the problem so that they benefit on the back end. I think we think this way about insurance. **I'm glad the group is making** the economic argument for preventive measures. If I were in city government I would want to explore a number of options for financing projects, such as taxation or tax increment financing, and not rely just on insurance. **It's** important to provide that context that there are other ways of gaining revenue than through insurance.

Michael Peterson: I agree with Jonathan. Several paths could converge. We could propose things in a way that helps readers understand the best path forward. Some insurance companies put in incentives for roofs that are hurricane proof. Lots of work goes into what's effective and what's not. A couple different ways to finance does help develop policy.

Jonathan Parfrey: Climate Resolve hosted [insurance 101 sessions](#).

Nuin-Tara Key: We can expect a draft product at the March meeting to weigh in on.

## B. Climate Resilience Metrics Workgroup

Juliette: Today we're laying out the process for moving forward. In the winter we will have two working group meetings, the first on January 20, open to all Councilmembers. The first step is clarifying the purpose of these and some initial indicators, and then a conversation with the full Council in March. At that point we'll be working on the state adaptation strategy. We're also reconvening the interagency workgroup, and can learn from this group how they are tracking resilience and risk reduction. In between working groups we will dig into indicators and identify metrics, and come back to the June meeting for discussion, and then in the summer conduct stakeholder engagement. We hope to have a draft set at the end of summer and adopt indicators and metrics in September. We will send around a survey to the TAC and ICARP listserv to collect information and ideas for California-specific metrics.

### DISCUSSION

Amanda Hansen: I'm supportive of the pre-meeting survey. I would like to avoid taking too much time to discuss purpose, which is to drive towards shared goals and track our progress. More time should be focused on what the metrics are. It's critical to not be overly prescriptive.

Karalee Browne: I concur with comments about purpose: we are working to expand the Beacon program, a 10 year recognition program funded through the public utilities' public goods surcharge and looking to expand to include adaptation and resilience. The local governments and communities we work with are demanding metrics, and want to focus on what adaptation means for their communities. They also want them to reflect their values on adaptation and resilience. We and local governments are anxious to fast track this effort.

John Wentworth: The federal government is transitioning in the coming weeks. We should look at what existing metrics lie with the federal government and create alignment between the federal agencies and the state.

Laura Engemen: What outcomes are important for measuring resilience. Mitigation has a hard target but resilience has a timeline and stressors, and requires balancing short and long term. We should articulate the survey questions in a way that shows what we're specifically asking for.

Brian Strong: We worked on developing indicators, including equity and health indicators in San Francisco; I recommend being careful in how prescriptive we are, and to focus more on process or the approach/thinking behind indicators to inform local efforts. We had 300 resilience indicator questions, half qualitative, half quantitative. We have to be careful what we're asking for. Each jurisdiction will interpret resilience slightly differently. It's important to have critical items we

can look at across the state from community to community. Looking forward to the working group, and the pre-survey is a great idea.

#### PUBLIC COMMENT

None received.

#### Item 7 | General Public Comment

None received.

#### Item 8 | Closing, Future Agenda Items, Meeting Adjourned

Nuin-Tara Key: Our 2021 meetings are **planned, we're working around climate week, COP and other events.** Please let us know about any conflicts for us to work around. At our March meeting we will bring back items for discussion and input, including 2021 priorities. There will be resilience workgroup meetings in January and February, and two meetings with the climate insurance sub-workgroup. Reminder about appointments, which will be sent out in January: **we will inform you if you're at the middle or end of your two-year term.** The decision to reappoint is made by the OPR Director. **We're** a large council at 24 seats, but California is large and diverse and at the end of each year we can evaluate how to bring the right voices into the fold.