



**OFFICIAL MEETING OF THE  
NATIONAL AND GOVERNMENTAL ADVISORY  
COMMITTEES  
(NAC/GAC)**

**FINAL SUMMARY**

**December 9, 2022**

Via Microsoft Teams Virtual Platform

*Note: The U.S. National and Governmental Advisory Committees are federal advisory committees chartered by Congress, operating under the Federal Advisory Committee Act; 5 U.S.C., App. 2. The committees provide advice to the Administrator of the U.S. Environmental Protection Agency (EPA) on the implementation of the Environmental Cooperation Agreement. The findings and/or recommendations of the committees do not represent the views of the Agency, and this document does not represent information approved or disseminated by EPA.*

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**Friday, December 9, 2022**

### **Call to Order and Introductions**

*Clifton Townsend, Acting National Advisory Committee (NAC) and Governmental Advisory Committee (GAC) Designated Federal Officer (DFO), Federal Advisory Committee Management Division (FACMD), Office of Resources and Business Operations (ORBO), Office of Mission Support (OMS), U.S. Environmental Protection Agency (EPA)*

Mr. Clifton Townsend, Acting NAC/GAC DFO, FACMD, ORBO, OMS, EPA, called the meeting to order and welcomed NAC and GAC members and other attendees to the 55th meeting of the NAC and GAC committees. He explained that he was acting on behalf of Mr. Oscar Carrillo, NAC/GAC DFO, FACMD, ORBO, OMS, EPA. Mr. Townsend thanked the NAC/GAC Chairs and Vice-Chairs for assisting in planning the meeting and Ms. Jane T. Nishida, Assistant Administrator, Office of International and Tribal Affairs (OITA), EPA; Mr. Mark Kasman, Director, Office of Regional and Bilateral Affairs, OITA, EPA; Ms. Nadtya Hong, International Environmental Program Specialist, OITA, EPA; and Dr. Leslie D'Anglada, Senior Advisor, North America Program, OITA, EPA. Mr. Townsend expressed appreciation to the entire FACMD team, including Ms. Gina Moore, Acting Director, FACMD, ORBO, OMS, EPA, and Ms. Robbie Young-Mackall, Acting Director, Administrative Operations Division, ORBO, OMS, EPA, for ensuring that the resources are made available to support the work of the committees. Participants were invited to introduce themselves.

### **Opening Remarks**

*Gina Moore, Acting Director, FACMD, ORBO, OMS, EPA*

Ms. Moore welcomed the NAC/GAC members and other attendees on behalf of Ms. Young-Mackall. She noted that FACMD, located within OMS, manages the NAC and GAC and provides oversight to 21 other EPA Federal Advisory Committees. Ms. Moore thanked the members for their intellectual investment in advising the EPA Administrator on issues related to the Commission for Environmental Cooperation (CEC). The NAC and GAC provide advice and recommendations to the EPA Administrator on environmental issues, engage with the Agency's partners and stakeholders, and play an important role in helping EPA achieve its mission to protect human health and the environment. Ms. Moore expressed appreciation to Ms. Nishida for her leadership and to OITA staff for their support of these committees.

### **Update on U.S. Priorities and Guidance**

*Jane T. Nishida, Assistant Administrator, OITA, EPA*

Ms. Nishida, on behalf of EPA Administrator Michael S. Regan, thanked the NAC and GAC members for participating and dedicating their time and commitment to advising the Agency, as it represents the U.S. government on the CEC Council. She acknowledged the participation of members from the CEC Secretariat and Joint Public Advisory Committee (JPAC), who represent Canada, Mexico and the United States. She presented an update on the Biden administration and EPA priorities related to climate change and introduced the advice letter charge.

The Biden administration has made a governmentwide commitment to making climate change mitigation and adaption—as well as environmental justice (EJ) and equity—a priority for federal agencies. This commitment has been supported by historic levels of funding through the passage of the American Rescue Plan Act of 2021 (ARPA, also called the COVID-19 Stimulus Package), the Infrastructure Investment and Jobs Act of 2021 (also called the Bipartisan Infrastructure Law [BIL]), and the Inflation Reduction Act of 2022 (IRA). The Biden administration recognizes that climate change disproportionately affects communities that have been underserved and historically marginalized and that the federal government has been directing resources toward these communities. Under IRA, EPA is

working to establish a \$27 billion greenhouse gas reduction fund that will provide competitive grants to tribal, state and local governments, as well as nonprofit financing institutions, to leverage private capital for clean energy and climate projects that reduce greenhouse gas emissions, with an emphasis on projects that benefit low-income and disadvantaged communities. EPA also is investing \$53 million in ARPA and IRA funding to empower 132 communities across the United States with technology to track critical air quality data. In 2021, EPA released its [Climate Adaptation Action Plan](#), which includes taking necessary actions to prepare for, adapt to and recover from the impacts of climate change, while at the same time addressing the climate resilience of tribal, state and local governments and communities across the nation. A key area of EPA assistance related to climate adaptation is EPA's [Climate Adaptation Resource Center](#), also referred to as ARC-X, which is an interactive resource that helps tribal, state and local governments and communities more effectively prepare for and adapt to the effects of climate change. EPA Administrator Regan has begun a series of [Journey to Justice](#) tours, meeting with communities that are historically and disproportionately impacted by pollution and other long-standing EJ concerns. On September 30, 2022, Administrator Regan established the Office of Environmental Justice and External Civil Rights, dedicating more than 200 EPA staff across the country to solving environmental challenges in underserved communities. On November 30 and December 1, 2022, President Biden convened the White House Tribal Nations Summit. Administrator Regan joined U.S. Secretary of the Interior Deb Haaland, U.S. Secretary of Agriculture Thomas J. Vilsack, President of the Central Council of the Tlingit and Haida Indian Tribes of Alaska Richard (Chalyee Éesh) Peterson, and Chairman of the Ute Mountain Ute Tribe Manuel Heart on a panel to address homeland issues. During the panel, Administrator Regan announced two important EPA regulatory revisions to recognize tribal rights: a proposal to protect tribal reserved rights in water-quality standards and best practices for tribal treaty and reserved rights.

Ms. Nishida pointed out that climate adaptation is a priority for Canada, Mexico and the United States. Last year, at the North American Leaders Summit, the leaders of these countries issued a joint statement describing plans to establish a North American Climate Adaptation Initiative under the CEC, which will work to improve early warning systems for extreme events and promote climate adaptation solutions. These have been the core activities for the CEC in recent years, with a low-carbon economy being one of the pillars in the CEC's 2010–2015 strategic plan and climate mitigation and adaptation being a priority in the 2015–2020 strategic plan. Ms. Nishida highlighted elements of the new strategic plan for 2021–2025. These elements include using remote sensing to prepare for and respond to extreme events; improving the effectiveness of early warning systems for drought, coastline floods and other extreme events; and using volunteer observer networks to monitor precipitation and wildfires. The two climate adaptation projects under the CEC's current operational plan include nature-based solutions to address flooding in coastal cities and enhancing the co-benefits of marine-protected areas.

Ms. Nishida explained that EPA is requesting the NAC's and GAC's advice on how best to engage key subnational actors in North America as EPA's climate adaptation initiative—which was announced at the 29th Regular Session of the CEC Council and Meeting of the JPAC in July 2022 (CEC29) in Mérida, Mexico—is being developed. Specifically, EPA is asking for advice on models or approaches to facilitate a broader, more inclusive, more effective engagement with subnational actors in North America. EPA also would like advice on how to develop a better understanding of the barriers and challenges to ensuring that national and subnational early warning systems provide the right level of awareness for disaster preparedness and climate adaptation actions. Finally, EPA would like advice on how to stimulate uptake of nature-based climate adaptation actions and community early warning systems across North America.

Mr. Townsend invited Mr. Andrew P. Carey (U.S.–Mexico Border Philanthropy Partnership), Chair of the NAC, and Ms. Marina M. Brock (Barnstable County [Massachusetts] Department of Health and Environment), Chair of the GAC, to provide an overview of the agenda.

## **Welcome and Overview of the Agenda**

*Marina M. Brock, Barnstable County (Massachusetts) Department of Health and Environment, Chair of the GAC*

*Andrew P. Carey, U.S.–Mexico Border Philanthropy Partnership, Chair of the NAC*

Ms. Brock and Mr. Carey welcomed everyone and thanked the NAC and GAC members for their contributions. Mr. Carey noted that he had participated in the previous JPAC meeting virtually and shared details of community efforts to help support EJ and climate change initiatives among the three nations. He expressed his enthusiasm for participating in another round of conversations to inform the work of EPA.

Mr. Townsend reviewed and noted some adjustments to the agenda made during the planning phase of the meeting. To maximize the time spent addressing the charge questions from EPA, the NAC and GAC Chairs and Vice-Chairs agreed to reduce the number of guest presenters during the session while recognizing the importance of the information.

## **Welcome Back From the CEC**

*Jorge Daniel Taillant, Executive Director, CEC*

*Louie Porta, Chair, JPAC, CEC*

Mr. Jorge Daniel Taillant, Executive Director, CEC, thanked the participants for welcoming him to the CEC. He described his background as an EJ activist who has experience working on climate policy, access to justice, and the connection between human rights and the environment. Mr. Taillant discussed his participation in two recent meetings: the 27th Conference of the Parties of the United Nations Framework Convention on Climate Change (COP27) in Sharm El-Sheikh, Egypt, and the 2022 United Nations Biodiversity Conference of the Parties (COP15) in Montreal, Canada. The scientific results presented at COP27 emphasize that acting quickly is essential to avoiding irreversible climate collapse. Decarbonization strategies alone are not enough. Urgent actions must be taken to rapidly slow warming and cool the planet while also managing EJ concerns. Tackling climate change and addressing EJ entails balancing mitigation and adaptation and incorporating Indigenous knowledge to protect the environment and be more respectful of nature.

Mr. Taillant explained that the CEC is a trilateral forum that can leverage collaborative efforts at this critical moment. The CEC aims to increase its visibility as a platform that can bring solutions and actors together, including Indigenous groups, young people and other populations that will be needed to handle this emergency. He expressed his wishes for more cooperative efforts related to biodiversity, climate change, and EJ in North America and across the world. Mr. Taillant invited participants to contact the CEC with input related to the CEC's strategic efforts.

Mr. Louie Porta, Chair, JPAC, CEC, stated that he was attending the virtual meeting from the traditional unceded territory of the Mi'kmaq people in Nova Scotia, Canada. He discussed several initiatives led by JPAC. Mr. Porta explained that during its session in Mérida, the Council had announced a contribution of C\$300,000 to support a JPAC-led initiative to raise awareness in the three countries about advancing sustainable forestry and the responsible consumption of wood products. Key features and activities of the initiative include (1) a comparative analysis of the current nature of forest management certification in North America, (2) consumer analysis and reports, (3) trinational workshops and a report on the state of forest management and certification systems, and (4) recommendations for further public awareness activities.

JPAC also has helped lead a public consultation on the CEC project to create the [Communities for Environmental Justice Network](#), a network across North America to address EJ concerns. The project will create a network of vulnerable, disadvantaged or otherwise underserved communities that have

EJ concerns to increase their local capacities and expand and disseminate community-based expertise, lessons learned and guidance related to climate change. Through the network, participating communities will engage in the development of a virtual resource library to facilitate learning and exchange of knowledge, in particular, traditional knowledge and practices. This library can contribute to strengthening climate adaptation, mitigation and monitoring and the capacity of Indigenous and vulnerable communities in Canada, Mexico and the United States.

Mr. Porta announced that during the previous week, JPAC had completed its second independent consultation on matters of importance to the public (i.e., sustainability, trade and climate action). As discussed in Mérida, JPAC focused on the role of ports in the fight against climate change. JPAC used Halifax, Canada, as an example of critical challenges and solutions, including port infrastructure, zero- and low-emission fuels, zero-emission vessels, climate implications of life at the ports, and social justice issues that people face living at ports. The session was well attended, with in-person and online communities that were very engaged. Mr. Porta noted that JPAC was pleased to welcome the new CEC Executive Director, Mr. Taillant, to the meeting. He expressed thanks to the many participants who represented Indigenous and other communities, including the Traditional Ecological Knowledge Expert Group (TEKEG). Mr. Porta announced that Dr. Octaviana V. Trujillo, former GAC member, had been unanimously elected as the new Chair of JPAC.

### **Climate Adaptation Goals at EPA**

*Joel Scheraga, Ph.D., Senior Advisor for Climate Adaptation, Climate Change Adaptation Program, Office of Policy, Office of the Administrator, EPA*

In 2021, EPA issued the “[Statement by EPA Administrator Regan on the President’s Executive Order Catalyzing America’s Clean Energy Economy Through Federal Sustainability](#)” Policy Statement signed by Administrator Regan and its *Climate Adaptation Action Plan*. In October 2022, EPA issued 20 climate adaptation implementation plans developed by its major offices, including regional and program offices, such as the Office of Policy and Office of Environmental Justice and External Civil Rights, which was established as a separate program office in September 2022. EPA’s Climate Adaptation Action Plan accelerates and focuses attention on five priority actions that the Agency will undertake during the next 4 years to increase human and ecosystem resilience as the climate changes and disruptive impacts increase:

- Integrate climate adaptation into EPA programs, policies, rulemaking processes and enforcement activities.
- Consult and partner with tribes, states, territories, local governments, EJ organizations, community groups, businesses and other federal agencies to strengthen adaptive capacity and increase the resilience of the nation, with a particular focus on advancing EJ.
- Implement measures to protect EPA’s workforce, facilities, critical infrastructure, supply chains and procurement processes from the risks posed by climate change.
- Measure and evaluate performance.
- Identify and address climate adaptation science needs.

### **Question and Answer Period**

Ms. Simone Sagovac (Southwest Detroit Community Benefits Coalition), NAC member, asked how ARPA funds are being tracked locally to ensure that they are benefiting the areas most affected by COVID-19 and its pollution-related effects. She also asked how competitive grants are being awarded to

ensure that the most affected areas receive funding. Ms. Nishida responded that dedicated staff within EPA track ARPA, BIL and IRA funding at the national and regional levels. She noted that, regarding the new IRA funds, the Biden administration has made investing in underserved and marginalized communities a priority for the U.S. government. The [Justice40 Initiative](#)—under which all federal agencies must invest at least 40 percent of their resources in disadvantaged communities that are marginalized or underserved—is a conscious effort to direct resources to communities that have been disproportionately affected by pollution.

Ms. Ann Marie Chischilly, Esq., (Northern Arizona University), Vice-Chair of the NAC, asked for more details related to the rollout of the new tribal initiatives. Ms. Nishida explained that each agency at the White House Tribal Nations Summit provided a report to the tribal leaders that included their agency’s accomplishments and deliverables.

Dr. David T. Dyjack (National Environmental Health Association [NEHA]), NAC member, asked for more information about the 40 percent of resources mandated by the Justice40 Initiative. Ms. Nishida answered that the division and recipients of the 40-percent funding will vary by agency, but these funds likely will be invested in tribal governments, cities and other local communities.

### **Public Comment Period**

No public comments were offered.

### **Committees Meet Separately to Discuss Charge Questions/Hot Topics Discussion**

Mr. Townsend explained that the NAC and GAC would meet separately to deliberate on the EPA charge questions.

#### ***GAC Separate Meeting***

Ms. Brock reminded the GAC members of Charge Question #1 and the related project objectives and opened the discussion; the CEC needs the GAC’s advice regarding facilitating a broader, more inclusive and more effective engagement of key subnational actors in North America in the shaping the CEC’s development of its climate adaptation initiative.

Mr. Erich A. Morales (El Paso County Attorney’s Office), GAC member, sought clarity on the definition of subnational actors and wondered whether the phrase was meant to include those who work outside of government. Ms. Brock affirmed that subnational actors could be anyone with relevant knowledge and recommendations. Mr. Morales asked whether EPA was seeking mechanisms for inclusion or the names of groups or individuals to contact. Ms. Nadtya Y. Hong, International Environmental Program Specialist, Latin America and Caribbean Program, OITA, EPA, and CEC General Standing Committee member, answered that EPA was soliciting suggestions for inclusion mechanisms and party names.

Ms. Debra L. Kring (City of Mission, Kansas), GAC member, commented that EPA should be in communication with academic groups, including universities and elementary schools. Ms. Hong agreed and mentioned a large project that the CEC conducted in partnership with The University of Oklahoma National Weather Center.

Mr. Morales asked whether the participants should create a categorized list of potential partners. Ms. Hong asked for examples of how to coordinate with different groups (e.g., universities versus nongovernmental organizations [NGOs]) depending on the groups’ priorities, in addition to limitations associated with each type of partnership. She added that EPA also was seeking advice on how to adapt early warning systems to different regions based on the different hazards to which they are vulnerable.



Mr. Robert Janecka (Texas Commission on Environmental Quality), GAC member, commented that subnational actors generally do not have as many resources as actors at the state and federal level. He added that requests to subnational actors should be communicated in a clear and concise manner so as not to burden these groups further. For example, communication with subnational actors should include an explanation of what is being translated to their level, what knowledge is expected from them, and why they are being included in a particular effort.

Ms. Hong emphasized that communication between subnational groups and those at the state and federal levels should not move in a single direction.

Ms. Sally Ann Gonzales (Arizona State Senate), GAC member, pointed out that in Arizona, Indigenous groups involved in environmental efforts often are considered hostile to the government and are not included in governmental efforts. She provided the examples of several Indigenous groups protesting mining in the San Carlos Apache Indian Reservation, Oak Flat, and locations in northern Arizona. She mentioned [Alianza Indigena Sin Barreras](#), a group that works on environmental and immigration issues along the border with Mexico, and [Las Aguas](#), a group of homeowners and community members working on water contamination in the Tucson, Arizona, area. Ms. Gonzales commented that these groups have traditional ecological knowledge (TEK) and other knowledge that would be of great value to EPA. She added that the Sierra Clubs of various states also have information about ongoing efforts in their regions. Mr. Janecka agreed that outreach from Sierra Clubs to community groups would be welcomed.

Dr. June Weintraub (San Francisco Department of Public Health [SFDPH]), GAC member, agreed with Ms. Gonzales about certain groups being perceived as adversaries. She added that, in her experience with the [National Advisory Council for Environmental Policy and Technology](#) groups, established decision-makers were upset by advocacy groups' collecting information and using it to support policy changes. Dr. Weintraub suggested that academic groups might be able to bridge this gap between establishment and advocacy groups.

Ms. Brock commented that unique personalities are required to facilitate connection and engagement between different groups. She connected this idea to previous comments from Ms. Hong about receiving feedback from community members and from Mr. Janecka about clear communication with subnational actors, both of which require an understanding of the culture and values of those groups.

Dr. Weintraub commented that a former colleague, Ms. Laurie Schoeman, had just been appointed by the Biden administration as the Senior Advisor for Climate Resilience on the Council on Environmental Quality. She added that Ms. Schoeman—with her experience in San Francisco, New York City and Puerto Rico—and others in similar positions would be useful partners. Dr. Weintraub discussed flooding issues in San Francisco that currently are being addressed by SFDPH in conjunction with such local partners as the Port of San Francisco and San Francisco Public Utilities Commission. She also described the [California Mandatory Recycling Laws](#), which require large supermarkets and restaurants to recycle and compost edible food, as well as require the donation of edible food to food recovery organizations. Dr. Weintraub noted the bureaucratic challenge of implementing these laws, which require enforcement by SFDPH.

Mr. Morales agreed with previous suggestions to consult with subnational groups to learn about their priorities, ongoing efforts and requirements.

Mr. Kelly C. Wright (Shoshone-Bannock Tribes), GAC member, commented that outreach to Indigenous leadership has often been ineffective in reaching different levels of tribal governance and membership. Ms. Brock asked Mr. Wright for suggestions about how to bridge this communication gap. Mr. Wright recommended that EPA perform outreach in newspapers and other forms of communication that reach more people. He described his work with the Comprehensive Environmental Response, Compensation,



and Liability Act, which requires active community involvement. Mr. Wright contacts each district in his area personally and offers to present the information to them. He added that building relationships and trust with Indigenous groups would be essential before expecting them to share TEK.

Ms. Brock and Ms. Hong discussed possible reasons that EPA was unable to communicate with multiple levels of tribal membership. Ms. Hong pointed out that much of the outreach to the tribal groups was coming from the CEC, which has recognized the communication problem and has begun more expansive efforts to improve in this area. She described the CEC's [EJ4Climate Grant Program](#) to fund projects in underserved and vulnerable communities (including Indigenous communities) in Canada, Mexico and the United States to help them prepare for climate-related effects. Ms. Hong commented that the program received many more proposals than usual and attributed the increased interest to expanded CEC communication efforts, including amplification of messaging through EPA offices and communication with tribal groups and historically Black colleges and universities. Ms. Brock and Ms. Hong discussed outreach efforts by EPA, including the Administrator's Journey to Justice tour, which has been well received by the general population because people want to be heard.

Ms. Julia S. Moore (Vermont Agency of Natural Resources), GAC member, offered reflections on her ongoing work. After adopting the [Global Warming Solutions Act of 2020](#) and California's [Advanced Clean Car II](#) and [Advanced Clean Trucks](#) standards, Vermont has altered its public engagement process. Instead of requesting input on the rulemaking process, the state has requested that members of the public describe what they require from state and local governments to implement the new rule packages. Ms. Moore explained that the solicited feedback has provided insight into the practical impacts of these rules on the community. Ms. Moore provided examples the public's concerns about incentive programs to help purchase electric vehicles. People want to know where to charge these vehicles when they park on the street or how to make purchases if they do not have a credit card. Ms. Brock agreed that governments should continually improve their administrative processes. She noted that many government agencies operate within silos and do not communicate well with one another to coordinate public engagement efforts.

Ms. Brock introduced Charge Question #2, which solicits input on developing a better understanding of the barriers and challenges to ensuring that national and subnational early warning systems provide the right level of awareness for disaster preparedness and climate adaptation actions. Ms. Brock described her experience as an emergency management specialist and noted the challenge of integrating mitigation into emergency management, which historically has been focused on responding to emergencies rather than preventing them.

Mr. Morales sought to clarify whether Charge Question #2 referred to literal warning systems (e.g., alarms) or communicating information related to disasters. Ms. Hong commented that EPA was open to suggestions about either type of warning system.

Ms. Gonzales pointed out that rural Indigenous communities are unable to communicate with the types of warning systems that are available in large cities and municipalities. She described challenges with the current drought in Arizona, including the lack of communication about the dangers of insufficient water supply and the lack of water conservation efforts to mitigate the effects of the drought.

Mr. Orlando Cabrera-Rivera, CEC, provided context regarding early warning systems. He explained that these systems combine observations and data into models that generate useful information at the local level. Mr. Cabrera-Rivera added that many of the barriers in these systems prevent people from receiving the right information at the right time. He provided the example of efforts in collaboration with the Pinal County Public Health Department in Arizona, which found that people between the ages of 19 and 25 and people experiencing homelessness were the populations most likely visit the emergency room during extreme heat events. To reach people most experiencing the effects of extreme heat, the health department

engaged with the United Way, which already was serving the homeless population. Mr. Cabrera-Rivera emphasized that early warning systems should be connected with local health and social services organizations to reach the populations that will be most affected.

Ms. Brock commented that she considers audible alarms to be early warning systems. She asked Mr. Cabrera-Rivera whether he was referring to sirens or wider surveillance systems. Mr. Cabrera-Rivera responded that both elements are part of the communication process. He provided an example of National Oceanic and Atmospheric Administration (NOAA) colleagues' providing their counterparts in Mexico with satellite information about soil moisture content prior to Hurricane Gamma in October 2020. This information was vital to first responders, who needed to predict areas that were susceptible to flooding. He noted that many early warning systems are not complete because they contain barriers impeding the effective flow of information. Ms. Brock wondered whether subnational stakeholders should include those involved in soil conservation surveys and agricultural and related agencies. Mr. Cabrera described an [app created in Canada](#) that enables any community member to upload pictures of a flooded area, which can then be compiled with satellite observation data to inform early warning systems.

Ms. Brock and Mr. Cabrera-Rivera discussed how strengthening ties between state, regional and local organizations would improve early warning systems. For example, increases in heat-related injuries in emergency departments could be communicated to public health departments, which, in turn, could inform agencies at the regional and state levels. Mr. Cabrera-Rivera noted that many barriers remain in this area. For example, during extreme heat, people tend to stay home rather than visiting cooling centers. Public health agencies should figure out why community members are hesitant to visit the centers and also how to communicate with these people if they are staying home. Ms. Brock added that these challenges also will vary from community to community and will depend on outreach resources available.

Mr. Cabrera-Rivera re-emphasized the need for building trust with Indigenous communities before requesting that they provide information for use in surveillance or management projects. Ms. Brock agreed. She requested that GAC members provide her with the names of specific individuals or agencies, NGOs, or academic groups that would be beneficial to engage. She noted that the Federal Emergency Management Agency (FEMA) changes flood maps only retroactively and asked for more information about the real-time data collection capabilities of the Canadian flood app. Mr. Cabrera-Rivera explained that the app was built by Natural Resources Canada. He noted that the CEC recently published [recommendations for improving flood data collection in North America](#), which is not well coordinated among the three countries. For example, remote communities in Mexico are not included in official registers, and loss of housing in these areas during floods is not recorded. In Canada and the United States, multiple agencies collect flood damage data, but not all of this information reaches the national level of government for impact estimations.

Ms. Brock asked Mr. Cabrera-Rivera how these barriers were discovered. Mr. Cabrera-Rivera responded that these gaps became clear during a [CEC Drought Summit](#) convened in September 2020. He explained that the summit included breakout groups categorized by country and noted that, in his group, it was the first time that local Canadian drought managers had met with their federal counterparts.

Ms. Brock commented that a contact at the U.S. Department of Homeland Security (DHS) had expressed frustration about the lack of EPA efforts in area of disaster mitigation. She asked Ms. Hong whether this challenge was being addressed at EPA. Ms. Hong requested that Ms. Brock forward contact information for the DHS colleague to her. Ms. Hong also offered to work with her counterparts at NOAA, who also are interested in getting involved in disaster mitigation efforts.

Mr. Wright commented that a major barrier for early warning systems in Indigenous communities is the lack of electronic and internet capabilities. Fort Hall Reservation, the reservation of the federally recognized Shoshone-Bannock Tribes, is more than 500,000 acres in size and does not have full access to

electricity or cell phone reception. He noted that, especially in snowy areas, the weather also can be a challenge. Ms. Brock asked about how communications are facilitated in an area that large. Mr. Wright answered that messages must be relayed to remote areas, such as Bannock Creek, in person. Only some residents have landline telephones. Although an emergency management team exists to coordinate emergency responses, residents are actively involved in communicating important information to one another. Mr. Wright added that the nuclear reactor located at nearby Idaho National Laboratory also poses a significant hazard to the reservation.

Ms. Brock introduced Charge Question #3, which solicits input on stimulating uptake of nature-based climate adaptation actions and community early warning systems at the subnational level across North America.

Mr. Janecka commented that, similar to soil moisture evaluations, snowpack assessments are important for flood hazard and water availability planning. He agreed that early warning systems should consist of two-way communication between communities and larger organizations but not use language (e.g., nature-based) that could be off-putting to some legislative decision-makers. As a model for consideration and reference, Mr. Janecka highlighted Texas A&M University's [Ike Dike](#), which has been a successful climate adaptation solution in the state of Texas.

Mr. Erich Morales commented that early warning systems should consider the language needs of the intended recipients of the warning. He mentioned, for example, Indigenous communities and populations that speak English as a second language or speak only Spanish. Mr. Morales described another challenge related to water utilities in the city of El Paso, which provides water to disadvantaged *colonias*. Mr. Morales explained that the water contract with these communities stipulates that during emergencies, the water utilities will be shut off in the *colonias* first. He added that these communities also have been discouraged from developing their own centralized groundwater system. Mr. Morales agreed that landlines would be a useful component of early warning systems and noted that during large power outages, the small water districts were at an advantage because they relied on landlines rather than cell phones.

Mr. Cabrera-Rivera agreed that snowpack was a useful metric for flood and drought hazard assessments. He and Ms. Brock agreed that each community is different and should perform an assessment of its unique vulnerabilities. Ms. Brock mentioned that FEMA has generated a [hazard vulnerability map](#) of the United States and made it available to the public. She pointed out that specific geographical regions often share hazard vulnerabilities; these areas can cooperate in hazard planning and mitigation efforts, which would reduce redundancies and strengthen local networks.

Mr. Leonard Drago (Arizona Department of Environmental Quality), GAC member, suggested using the Inner Tribal Council of Arizona, a group that represents 21 of the 22 federally recognized tribes in Arizona, to communicate to the tribal community. He commented that remote sensors can be beneficial when integrated into early warning systems.

Ms. Moore commented that, in the wake of Tropical Storm Irene's hitting Vermont in 2011, the state has worked with FEMA to ensure that infrastructure maintenance meets the state's newly adopted set of codes and standards. Vermont has been prioritizing transportation investments to enlarge undersized culverts and bridges to prevent flooding. The state is working on green infrastructure and promoting wetland restoration for the triple benefit of habitat improvement, water quality improvement and climate resilience. Vermont recently created a municipal vulnerability index to help towns evaluate how climate-ready they are. The state will be working with smaller communities to help apply that tool directly and then apply for grant funds to address their most significant vulnerabilities. Vermont also is assessing the hazards posed by increasingly hot summers, more numerous algal blooms, and an increase in the tick population and tick-borne illnesses.

Ms. Brock thanked the members for their support and adjourned the separate meeting of the GAC.

### ***NAC Separate Meeting***

Mr. Carey opened the NAC discussion to Charge Question #1. He first invited attendees to introduce themselves.

Mr. James Marston (Marston Sustainability Consulting), NAC member, emphasized including cities and highlighted groups of interest, such as the Municipal League. Mr. Marston remarked that that some states, for political or ideological reasons, tend to act more slowly than others on climate and climate adaptation issues, and he suggested reaching out to representatives from all political parties.

Dr. Dyjack suggested adding two groups active at the local level: the National Association of County and City Health Officials, which represents city health officials throughout the United States, and NEHA, which has constituents with environmental health expertise throughout the nation, U.S. territories, uniformed services and private sector.

Dr. Vincent R. Nathan (Center for Houston's Future), NAC member, called attention to the National Academy of Medicine's formation of the [Action Collaborative on Decarbonizing the U.S. Health Sector](#) (Climate Collaborative). Three working groups—Health Care Supply Chain and Infrastructure, Health Professional Education and Communication, and Health Care Delivery—have been launched within the Climate Collaborative, and Dr. Nathan remarked that their work on decarbonization would be applicable to CEC's climate change initiatives and this charge.

Ms. Erica Ocampo (The Metals Company), NAC member, recommended the American Planning Association, whose members are urban planners in different cities who implement adaptation strategies, and the Bloomberg Harvard City Leadership Initiative, composed of city specialists trained in this type of work.

Ms. Sagovac noted two different conferences—Smart Cities Connect and Growing Sustainable Communities—that convened cities and municipalities and might offer occasions to identify others already doing this work. Ms. Sagovac noted that, at the local level, climate-related conferences may attract organizations focused on climate change, such as the Michigan Environmental Justice Coalition. Organizations at the grassroots level with policy engagement expertise also may exist and provide opportunities to connect (e.g., a collaboration between local communities and legislators in Michigan to form climate commitments). She also mentioned the Michigan Climate Action Network and similar groups of interest.

Ms. Jennifer J. Ronk (The Dow Chemical Company), NAC member, noted [ICLEI—Local Governments for Sustainability](#) (formerly International Council for Local Environmental Initiatives), a global network of local governments that specifically works with cities interested in sustainability.

Dr. Antonio A. Rene (Texas A&M University School of Public Health), NAC member, offered the example of religious-based organizations in Fort Worth, Texas, composed of several congregations that convene to address issues relevant to them, one of which is climate change. Similar groups in other U.S. cities also may be addressing this topic.

Ms. Chischilly called attention to several groups: Institute for Tribal Environmental Professionals (ITEP) at Northern Arizona University, National Indian Collectives, and National Congress of American Indians. Ms. Chischilly will compile a list of other groups representing Indigenous peoples with which to connect.

Mr. Carey suggested creating a directory of the various groups (i.e., key subnational actors in North America) in the three countries—Canada, Mexico and the United States—of which the CEC should be aware and with which it can interact or connect; the members agreed with this suggestion. Other suggestions for a North American directory for the CEC were proposed, including providing a point of contact for the groups and considering business groups interested in environmental issues. Ms. Sagovac agreed to initiate a Google Doc to collect the information and will forward the draft directory to Mr. Townsend to circulate to the committees for input. Dr. Aminata P. Kilungo (The University of Arizona), NAC member, suggested considering groups along the Arizona/U.S.–Mexico border that equally represent both sides of the boundary.

Dr. Donna L. Lybecker (Idaho State University), NAC member, spoke on land trust partnerships active in rural areas (e.g., [Heart of the Rockies Initiative](#)) that address environmental issues, such as climate change. Dr. Nathan added that the [Community Collaborative Rain, Hail and Snow Network](#) (CoCoRaHS) is using low-cost measurement tools to determine contamination (e.g., of crops) from rain, hail and snow in areas not currently being monitored. He commented that EPA may have information on CoCoRaHS, which is a citizen-based network composed of representatives from the Commonwealth of The Bahamas, Canada and the United States, and is now in all 50 states. Dr. D’Anglada was not aware of this group but will share this information with her OITA colleagues.

Mr. Carey pointed out that U.S.–Mexico border wait times are creating significant community challenges related to environmental issues that affect businesses. He called attention to some business groups that are engaged in such discussions. These include the Arizona–Mexico Commission, Borderplex Alliance, Border Trade Alliance, Smart Border Coalition and Texas Border Coalition.

Dr. Kilungo attended COP27 and noted some key deliberations and gaps. Mitigation and adaptation by reducing carbon dioxide and increasing green energy was a major topic, which fits with EPA’s Climate Adaptation Action Plan. The integration of human health into climate change initiatives was not observed. Dr. Kilungo commented on how health also can serve as an approach to address climate justice, especially for underserved communities. In addition, Dr. Kilungo has been asked to present on this topic during the 2023 Bonn Climate Change Conference, and she and Mr. Carey invited the NAC to provide comments.

Dr. Dyjack reiterated the rich resource of local governmental environmental health professionals, noting that health professionals are trusted by local constituents and can serve as natural communicators on health who understand the culture and risks at the local level. He suggested that EPA assume the role of facilitator to engage this group. Mr. Carey suggested providing a framework for the advice letter, outlining the addition of health and the challenge of connecting it to the environment.

Dr. Nathan pointed out that early warning systems can be used as health alert indicators of viruses and other types of diseases that can sometimes be weather related. The Climate Collaborative is one group to model for linking health and the environment.

Mr. Carey noted that when people fly into the Tijuana airport near the U.S.–Mexico border, a terminal allows them to cross the border wall into the United States. The U.S.–Mexico Border Philanthropy Partnership, in collaboration with the San Francisco and Los Angeles airports and the Cross Border Express, has conducted more than 10,000 voluntary COVID-19 tests among international travelers at this port of entry. Six new SARS-CoV-2 variants have been identified, and this type of early warning system, taking the form of COVID-19 testing, has informed California public policy.

Ms. Chischilly asked whether the charge was asking how to engage as well as communicate with these groups more effectively, such as via email or social media, particularly with tribes. Mr. Carey explained that the NAC is free to make those suggestions and noted that one strength of this committee is a high level of cultural competence.



Members discussed best practices for engaging with tribal communities. In the Northern Arizona region, Facebook is one of the best engagement mechanisms for tribes; the younger generations are moving toward Instagram. Any brochures or materials developed should be accessible on cell phones. Town hall meetings have worked best for broadly engaging underserved communities. Mr. Carey commented on the need to encourage EPA to use demonstrated successful strategies to reach marginalized and vulnerable communities so that critical messages are received in the future.

Mr. Carey highlighted the North American Partnership for Environmental Community Action (NAPECA) grants totaling more than \$1 million that the CEC could advertise on Facebook pages sponsored by tribal communities. Ms. Ronk added that providing incentives to community partners (e.g., childcare services) is one way to potentially increase participation in the NAPECA grant projects.

Dr. Rene commented on two issues to be overcome: (1) a lack of trust within these communities about EJ issues brought about by unfulfilled promises and (2) the knowledge gap about the environmental issues.

Mr. Carey moved the discussion to Charge Question #2. Ms. Ocampo spoke on the fundamental understanding of climate risks and challenges and adaptation to the level of trust that would prompt the governments to promote change in the lives of people. Although many are open to trust and will follow guidance, large populations exist within the three countries that do not believe or understand climate change and continue to consider it a hoax.

Mr. Marston explained that many cities do not understand climate adaptation because they feel there is no hope, it is impossible, or climate change is God's will. He suggested that it would be helpful for EPA and border commissions to provide a summary of climate-related activities already in progress within communities along the borders, such as wind or solar-powered desalinization. In addition, he explained that wind and solar power often are available in border regions and that desalinization can be performed at any time of the day rather than during peak electrical usage periods.

Dr. Dyjack commented that public health speaks to the "what" and, to a lesser extent, the "who" in terms of adaptation. He remarked on trust at the local level and the need to address misinformation and disinformation in communities and made several key points. Individuals who have gained trust at the local level need to take on the role and responsibility of addressing disinformation and misinformation in real time. The public often reacts to truth distortions instead of staying ahead of them. It is imperative to have the right spokespeople who are trusted rather than someone who shows up at an opportune time. Such spokespeople are those who permanently reside in those communities; have good relationships with the residents; and understand the culture, risks and local vernacular. It would be a good investment of resources to ensure that community representatives have the appropriate tools to act accordingly and sustainably. Dr. Dyjack volunteered to check the NEHA network for a list of such tools.

Ms. Ronk pointed out that communities need better ways of assessing overall risk and evaluating the infrastructure risk using the appropriate tools. She suggested having common tools that can be broadly used along with community engagement to help prioritize the most important adaptation approaches.

Ms. Chischilly reminded the NAC that ITEP released the [Status of Tribes and Climate Change Report](#), which contains an overview and 40 narratives on climate change initiatives and solutions, as well as the recommendations of 34 U.S. tribes. This inaugural report has been vetted, is a one-of-a-kind resource, is supported by EPA's 10 regions, will be updated every 2 years, and is cited in the Fifth National Climate Assessment.

In terms of building awareness about adaptation, emergency preparedness and planning, Dr. Kilungo emphasized integrating new information with which most people at the community level are less familiar.

She suggested building workforce training in these areas, noting a role for universities and other educational institutions to include certifications and curricula related to emergency response.

Mr. Carey clarified that intentional attacks on systems and infrastructures (e.g., North Carolina substation attacks) activate an emergency response and illustrate part of the problem being faced today.

Ms. Sagovac wondered whether it would increase attention and the level of activity if EPA were to rely heavily on grassroots organizations to lead the efforts or offer grants to support emergency planning for local communities to explore the barriers, rather than respond to crises (e.g., refinery fires, polar vortex). She noted that leadership would be necessary to mobilize the various communities.

Dr. Dyjack called attention to the existing efforts in the emergency preparedness and response space that should be harmonized and aligned with additional EPA investment to produce the maximum return on those investments.

Members discussed early warning systems and how the challenges in tribal communities are not well understood. Early warning systems are limited in rural areas and should be expanded in these communities. It is important to stay ahead of potential disasters (e.g., hurricanes, tornadoes) by providing the necessary preparedness information well in advance of such events. Proactive measures, such as placing wind alert sensors in California's Santa Ana Canyon, have been successful.

Mr. Carey moved the discussion to Charge Question #3. Ms. Sagovac spoke on the decreasing tree canopy in Metropolitan Detroit because residents are cutting down mature trees to avoid the damage caused when they fall onto their properties. Local and national programs to replace trees are low scale. Educating the public about the value of mature trees to urban areas is essential. Ms. Ocampo commented that city and urban planners would play a role in the actions of this charge because of the city codes and demands of new construction.

Ms. Ronk underscored the significance of collecting data related to nature-based solutions to mitigating storm damage and communicating the importance of these data, so that people understand the value and make necessary choices and investments.

Dr. Dyjack noted the need to do a better job of using endemic plants that are effective at mitigating today's extreme weather events. He also highlighted use of TEK and the TEKEG, whose members represent the three countries, and suggested engaging this group in the discussions of this charge.

Ms. Chischilly called attention to the November 30, 2022, Presidential memorandum titled "Implementation of Guidance for Federal Departments and Agencies on Indigenous Knowledge," which requires all federal agencies to incorporate Indigenous TEK into federal projects. This guidance ensures protection of positional knowledge when working with Indigenous peoples, as well as their traditional knowledge, which is their intellectual property.

Ms. Sagovac noted relevant forestry initiatives, including a planting project in Detroit that balances local tree species with offerings from southern states and Europe that are capable of withstanding warmer temperatures.

Mr. Carey called attention to two issues related to climate change along the borderlands that required mitigation. First, dust clouds linked to human cancers are created when city sidewalks or roads in impoverished communities are not allowed to properly drain. Engineering efforts are in place to raise the sidewalks to enable sufficient runoff. Second, food insecurity rates are high along border regions, with the highest in developing countries, such as Guatemala. In this region, one in five children younger than age 5



is afflicted with chronic malnutrition. Strategies from sub-Saharan Africa are being implemented in Guatemala to teach these communities how to adapt and grow new food sources.

Dr. Rene commented on the need to establish greener zones in urban areas, where the heat and heat index disproportionately affect minority communities who live in these settings.

### ***Hot Topics Discussion***

Mr. Carey opened the discussion to environmental topics of interest relevant to members' geographical regions or industries. He invited NAC members to present their hot topics, which could be considered in formulating recommendations for the advice letter.

#### *Decarbonizing Air Travel*

Dr. Rene reported that Great Britain's Rolls-Royce recently tested a new hydrogen-powered jet engine. Because of the large jet aircraft industry worldwide, this testing will have a broad impact on decarbonization. Flight testing is the next step for this engine. The good news is that the hydrogen is produced through electrolysis of water and powered by renewable energy, thus creating net-zero emissions. In terms of seeking alternative green fuel in this industry, Dr. Rene considers this a hot topic for the CEC and EPA.

#### *Sustainable Aviation Fuel*

Mr. Marston explained that IRA funding is being used to sponsor a series of large grants to support various sources of sustainable aviation fuel. The fuels extend from wood gas to natural gas. Significant investments will flow into private dollars, but the U.S. Department of Transportation will be providing a number of IRA-funded grants.

#### *Reduction of Greenhouse Gas Emissions: Electrification of Vehicles*

Ms. Ocampo reported that IRA is supporting the goal of the United States and other countries to reduce greenhouse gas emissions via electrification of vehicles. The target of this effort is 50 percent of sales of new vehicles to be electric by 2030. A significant investment in manufacturing such vehicles in the United States has resulted. IRA stipulates that no metals may be purchased from non-trade partners, but these companies are the major producers of raw materials used in the United States. The aim is to identify local suppliers of critical minerals because this industry currently is monopolized by China and Russia. This issue has been a topic of discussion in the U.S. Department of Defense and the agenda for decarbonization. Ms. Ocampo remarked on the urgency of having mineral independence to enable the transition to decarbonization.

#### *Electric Vehicle Charging Stations at Ports of Entry*

Mr. Carey presented topics of concern along the Arizona–Mexico border on behalf of Mr. Luis E. Ramirez Thomas (Ramirez Advisors Inter-National, LLC), NAC member, who was unable to attend this meeting. Mr. Thomas is collaborating with the North American Development Bank (NADBank), Arizona Department of Transportation, Arizona Department of Environmental Quality, state of Sonora (Mexico), and industry representatives to deploy a pilot program to use electric trucks at the U.S.–Mexico border, specifically Nogales/Douglas, Arizona. Funding will be needed to defray some of the costs of this project. Complicating matters is the fact that the General Services Administration is installing electric vehicle charging stations at ports of entry, but these are only for use by federal government fleets and not for public use. This restriction indicates a greater need to deploy additional electric vehicle charging stations at ports of entry in small communities across the rural borderlands. Mr. Thomas and his team are seeking

to work with the CEC to increase awareness about grant opportunities to support studies to help increase the availability and marketability of the installation of electric vehicle infrastructure across the borderlands, especially in tribal communities and other vulnerable communities where they are nonexistent.

### *Clean Drinking Water*

Dr. Dyjack reminded attendees that the issue of clean drinking water (in different places and different ways) in the United States has profound significance on the health and economic security of all people. The Colorado River drainage basin remains an environmental concern that may not get better any time soon. Aquifers throughout the United States are becoming increasingly depleted. These issues point to the need for a national discussion on this topic, and the NAC is one place to begin.

Mr. Carey explained that this topic was discussed during the September 2022 Environmental Summit hosted by NADBank. Summit participants highlighted that the increases in droughts, population and demand, coupled with the decrease in water supply, are creating large challenges in drinking water. The Mexican Water Treaty of 1944 manages how critical, scarce resources are shared between the United States and Mexico. Water is polluted on both sides of the border. As described in the public comments of the April 2022 NAC and GAC meeting, EPA recently announced a \$300 million investment to address the San Diego–Tijuana river cleanup; Mexico is contributing \$275 million toward this effort.

Ms. Chischilly noted other drinking water issues related to the Colorado River and the effect on tribal communities. As a former water rights attorney, she worked on a case involving tribes and water rights issues that was settled in 2007. The U.S. Department of the Interior, under Secretary Haaland, is putting forth significant funding to ensure that water rights are reserved or adjudicated for tribes. The focus also is to find unique methods for working with urban communities to find equitable use of water.

### *Funding for Tribes, Adaptation to Implementation and Other Issues*

Ms. Chischilly reported working with more than 200 tribes on building climate adaptation plans, but funding for implementation is lacking. The protection of lands and water pipelines remains a large concern. Natural resource extraction is one of the major issues that concerns tribes because it impacts not only their lands, but also surrounding lands, including aquifers. Training for tribes and the younger generation is another major concern, as well as conservation and collaborative management of national parks, which largely were tribal lands. River dam removals are restoring waters for tribal nations, particularly the with the largest removal project in Klamath, California, and the Yurok Tribe.

### *Rainwater Harvesting*

Dr. Kilungo pointed out that several initiatives related to rainwater harvesting to supplement water uses are ongoing in the United States and other countries. For example, some cities in Australia rely heavily on this process. Tucson sponsors a rebate program through which the city provides \$2,000 to homeowners and small commercial water users to retrofit and install rainwater harvesting systems. She emphasized the importance of building systems to supplement water use, suggesting that this method is one such approach.

### *Lower Colorado River Desert*

Dr. Nathan explained that in Arizona and other places, because the lower Colorado River is becoming desert-like, adaptation measures such as desalination plants do not have the water to function. He contends that addressing water issues should be a NAC recommendation to the charge.

## ***Other Topics***

Mr. Carey moved the discussion to general comments. Dr. Nathan revisited the definition of early warning systems, explaining that FEMA and other emergency agencies consider them to be systems that sound alarms to alert about evacuations. He remarked that early warning systems for climate change are much more ominous, particularly when it comes to health care, diseases and spreading of viruses. Dr. Nathan proposed adding a health communication component to climate change early warning.

Ms. Chischilly noted that when administrations change after a federal election, the entire system (i.e., U.S. agenda) changes, which can affect ongoing environmental initiatives. She wondered about considering approaches at the local level to protect from (or limit the impact of) such changes and highlighted long-term generational issues regarding changes to education as one example. Members agreed that systems in place for decades no longer exist and that this is a topic that the NAC could address in the future.

Mr. Carey informed the members that the Chairs, Vice-Chairs and Mr. Townsend are working to enable convening the NAC/GAC at EPA headquarters for its first in-person meeting since the COVID-19 pandemic. He thanked the members for their support and adjourned the separate meeting of the NAC.

## **Summary and Next Steps**

Mr. Townsend thanked everyone for their hard work, noting that he looks forward to the reports. He requested that the NAC/GAC members complete the meeting evaluation that will be circulated shortly after the meeting ends.

Mr. Carey explained the next steps. The NAC and GAC will compile advice letters for EPA Administrator Regan, which are due by January 9, 2023. EPA staff will provide opening statements for the advice letters. Members were requested to send any additional comments for formulating the drafts to Ms. Brock or Mr. Carey soon after the meeting.

## **Adjournment**

The meeting adjourned at 3:15 p.m. EST.

## **Action Items**

- ❖ Ms. Brock requested that the GAC members provide a list of key subnational actors in Canada, Mexico and the United States, to be forwarded to the CEC.
- ❖ Ms. Hong will forward a list of CEC accomplishments to the GAC.
- ❖ Ms. Hong will discuss having the EPA Administrator highlight CEC initiatives during his public appearances with her management.
- ❖ Mr. Cabrera-Rivera will forward to the GAC his concept note relating to charges.
- ❖ Ms. Brock will share contact information for her colleague at DHS with Ms. Hong.
- ❖ Ms. Moore will provide Ms. Brock with a list of climate and green initiatives in Vermont.
- ❖ Ms. Brock will share her draft advice letter on shaping the CEC's development of its climate adaptation initiative with the GAC members for their comments.
- ❖ Ms. Sagovac will initiate a draft directory in a Google Doc of key subnational actors in Canada, Mexico and the United States with whom the CEC should be aware and forward it to Mr. Townsend to circulate to the NAC and GAC members for their input.
- ❖ Dr. D'Anglada will ensure that OITA is made aware of the efforts of CoCoRaHS.

- ❖ Dr. Dyjack will check the NEHA network for a list of climate adaptation tools that can be shared with the NAC.
- ❖ Mr. Carey will share his draft advice letter on shaping the CEC's development of its climate adaptation initiative with the NAC members for their comments.

## Summary Certification

*I, Marina M. Brock, Chair of the Governmental Advisory Committee, and I, Andrew P. Carey, Chair of the National Advisory Committee, certify that the meeting minutes for the date of December 9, 2022, as hereby detailed, contain a record of the persons present and give an accurate description of matters discussed and conclusions reached and copies of all reports received, issued or approved by the advisory committees. My signature date complies with the 90-day due date after each meeting required by the GSA Final Rule.*



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Marina M. Brock  
Chair, GAC

January 26, 2023

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Date



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Andrew P. Carey  
Chair, NAC

January 26, 2023

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Date

## Appendix A: Meeting Participants

### NAC Members

**Andrew P. Carey, Chair**

Executive Director  
U.S.–Mexico Border Philanthropy Partnership

**Ann Marie Chischilly, L.M.M., Vice-Chair**

Executive Director  
Institute for Tribal Environmental Professionals  
Northern Arizona University

**David T. Dyjack, Dr.Ph., CIH**

Executive Director and CEO  
National Environmental Health Association

**Aminata P. Kilungo, Ph.D.**

Mel & Enid Zuckerman College of Public  
Health  
Department of the Health Promotion Sciences  
The University of Arizona

**Donna L. Lybecker, Ph.D.**

Professor and Chair  
Department of Political Science  
Idaho State University

**James Marston**

Principal  
Marston Sustainability Consulting

**Vincent R. Nathan, Ph.D., M.P.H.**

Consultant  
Center for Houston’s Future

**Erica Ocampo**

Chief Sustainability Officer  
The Metals Company

**Luis E. Ramirez Thomas**

President  
Ramirez Advisors Inter-National, LLC

**Antonio A. Rene, Ph.D.**

Professor  
Texas A&M University School of Public Health

**Susan Robinson**

Senior Director of Sustainability  
Waste Management Inc.

**Jennifer J. Ronk**

Sustainability and Advocacy Manager  
The Dow Chemical Company

**Simone Sagovac**

Project Director  
Southwest Detroit Community Benefits  
Coalition

### GAC Members

**Marina M. Brock, Chair**

Senior Environmental Specialist  
Barnstable County (Massachusetts) Department  
of Health and Environment

**Kendra Abkowitz, Ph.D., M.B.A.**

Chief Sustainability & Resilience Officer  
Office of Mayor John Cooper  
Nashville, Tennessee

**Leonard Drago**

Ombudsman/Tribal Liaison  
Arizona Department of Environmental Quality

**Sally Ann Gonzales**

State Senator  
Arizona State Senate

**Robert “Bobby” Janecka**

Commissioner  
Texas Commission on Environmental Quality

**Debra L. Kring**

Council Member  
City of Mission, Kansas

**Julia S. Moore, P.E.**

Secretary  
Vermont Agency of Natural Resources

**Erich A. Morales**  
Division Chief  
El Paso County Attorney's Office

**Austin Nunez**  
Chairman  
San Xavier District Council  
Tohono O'odham Nation

**June Weintraub, Ph.D.**  
Senior Epidemiologist  
San Francisco Department of Public Health

**Kelly C. Wright**  
Manager  
Environmental Waste Management Program  
Shoshone-Bannock Tribes

### **Acting Designated Federal Officer**

**Clifton Townsend**  
Federal Advisory Committee Management Division  
Office of Resources and Business Operations  
Office of Mission Support  
U.S. Environmental Protection Agency

### **EPA Participants**

**Leslie D'Anglada, Ph.D.**  
Senior Advisor  
North America Program  
Office of International and Tribal Affairs  
U.S. Environmental Protection Agency

**Nadtya Hong, Esq.**  
General Standing Committee  
Commission for Environmental Cooperation  
Office of International and Tribal Affairs  
U.S. Environmental Protection Agency

**Stephanie McCoy**  
Federal Advisory Committee Management  
Division  
Office of Resources and Business Operations  
Office of Mission Support  
U.S. Environmental Protection Agency

### **Other Participants**

**Orlando Cabrera-Rivera**  
Head of Unit  
Environmental Quality  
Commission for Environmental Cooperation  
Secretariat

**Marcela Orozco**  
Head of Advisory Groups and Private Sector  
Engagement  
Commission for Environmental Cooperation

**Gina Moore**  
Acting Director  
Federal Advisory Committee Management  
Division  
Office of Resources and Business Operations  
Office of Mission Support  
U.S. Environmental Protection Agency

**Jane Nishida**  
Assistant Administrator  
Office of International and Tribal Affairs  
U.S. Environmental Protection Agency

**Joel Scheraga, Ph.D.**  
Senior Advisor for Climate Adaptation  
U.S. Environmental Protection Agency

**Louie Porta**  
Chair  
Joint Public Advisory Committee  
Commission for Environmental Cooperation

**Jorge Daniel Taillant**  
Executive Director  
Commission for Environmental Cooperation  
Secretariat



**Contractor Staff**

**Carolyn J. Fisher, Ph.D.**

The Scientific Consulting Group, Inc.

**Tamara Korolnek, Ph.D.**

The Scientific Consulting Group, Inc.

## Appendix B: Meeting Agenda



### Official Meeting of the National and Governmental Advisory Committees to the U.S. Representative to the Commission for Environmental Cooperation **AGENDA**

**Friday, December 9, 2022**

**12:00 p.m. – 4:00 p.m. EST (11 a.m. Central, 10 a.m. Mountain, 9 a.m. Pacific Time)**

**Call-in number: TBC**

**Washington, DC 20460**

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- 12:00 p.m.     **Call to Order and Introductions**  
Clifton Townsend, Designated Federal Officer, EPA
- 12:05 p.m.     **Opening Remarks**  
Gina Moore on behalf of Robbie Young-Mackall, Acting Director, Federal Advisory Committee Management Division (OMS)
- 12:10 p.m.     **Update on U.S. Priorities & Guidance on the Charge**  
Jane T. Nishida, Assistant Administrator for EPA’s Office of International & Tribal Affairs
- 12:25 p.m.     **Welcome and Overview of Agenda**  
Andy Carey, Chair of the National Advisory Committee  
Marina Brock, Chair of the Governmental Advisory Committee
- 12:30 p.m.     **Welcome Back from the CEC**  
Jorge Daniel Taillant, CEC Executive Director  
Louie Porta, JPAC Chair
- 12:40 p.m.     **Climate Adaptation Goals at EPA**  
Joel Scheraga, Senior Advisor for Climate Adaptation
- 12:55 pm       **Question and Answer Period**
- 1:00 p.m.       **Public Comment Period**

- 1:05 p.m.     **BREAK/Committees Meet Separately to Discuss Charge Questions/Hot Topics Discussion**  
Andy Carey, Chair of the National Advisory Committee  
Marina Brock, Chair of the Governmental Advisory Committee
- 1:10 p.m.     **Question 1:** Facilitate a broader, more inclusive and more effective engagement of key subnational actors in North America (e.g., at the city level, Indigenous groups, civil society leaders, disadvantaged community representatives, etc.) in shaping the CEC’s development of its climate adaptation initiative
- 2:10 p.m.     **Question 2:** Develop a better understanding of the barriers and challenges to ensuring national and subnational early warning systems provide the right level of awareness for disaster preparedness and climate adaptation actions; and
- 3:10 p.m.     **Question 3:** Stimulate uptake of nature-based climate adaptation actions and community early warning systems at the subnational level across North America.
- 3:50 p.m.     **Summary and Next Steps**  
Andy Carey, Chair of the National Advisory Committee  
Marina Brock, Chair of the Governmental Advisory Committee
- 4:00 p.m.     **ADJOURN**

## Appendix C: Charge Letter for December 9, 2022, NAC/GAC Meeting

### CHARGE QUESTIONS: for NAC/GAC December 9, 2022, MEETING

11/15/2022

Dear NAC/GAC Members,

Below are the charge questions for your meeting on December 9, 2022. We also have included a short update on new CEC developments since our last meeting on April 28, 2022, with the purpose of providing context for the charge questions.

#### I. NAC/GAC BACKGROUND AND CHARGE QUESTIONS

The U.S. seeks advice from the NAC/GAC on **how best to engage key subnational actors in North America (e.g., at the city level, Indigenous groups, civil society leaders, disadvantaged community representatives, etc.) in shaping the CEC's development of its climate adaptation initiative**. This initiative was announced by the Council at the 2022 Council Session in Merida, as a large-scale initiative (projects with budgets of C\$1M and with broader scope) and is included in the CEC's 2022 [Operational Plan](#).

The CEC has a long history of engaging local actors, including relevant state, tribal and municipal governments, community leaders and Indigenous groups, in the implementation of CEC projects and initiatives (e.g., Air Now, food loss and waste, extreme heat, among others). With the increasing understanding of the importance of including local perspectives in the formulation of policy, programs, and other actions to effectively address the most pressing environmental issues and the deepening climate emergency, it is critical that the CEC strengthen its ability to engage and incorporate the views of key subnational actors, particularly in the area of climate change. This is especially true as many climate policies and actions that are decided at the international and national levels need to be implemented in or by subnational jurisdictions (e.g., States, tribal governments, municipalities, etc.) and consider local conditions.

At the 2022 Council Session, the CEC Council announced funding for the development and implementation of a C\$1M Climate Adaptation Initiative informed by our previous CEC work on improving the response to extreme events such as floods, drought, extreme heat and forest fires. Bearing in mind that the CEC is an intergovernmental organization with the unique ability to convene North American stakeholders across the three countries, create networks, and develop tools, we are asking the NAC and GAC for advice regarding recommended models or approaches to:

- 1) *Facilitate a broader, more inclusive and more effective engagement of key subnational actors in North America (e.g., at the city level, Indigenous groups, civil society leaders, disadvantaged community representatives, etc.) in shaping the CEC's development of its climate adaptation initiative;*
- 2) *Develop a better understanding of the barriers and challenges to ensuring national and subnational early warning systems provide the right level of awareness for disaster preparedness and climate adaptation actions; and*

*3) Stimulate uptake of nature -based climate adaptation actions and community early warning systems at the subnational level across North America.*

## II. UPDATE ON CEC DEVELOPMENTS:

At the July 2022 Council Session in Merida, the CEC Council addressed many of the most pressing environmental challenges facing North America's communities, particularly vulnerable communities and Indigenous Peoples, and highlighted the role of the CEC in developing a North American Climate Adaptation Workplan. For example, the CEC is supporting climate resilience and COVID-19 recovery at the community level through 25 grants valued at more than US\$3 million under the Environmental Justice and Climate Resilience (EJ4Climate) and the North American Partnership for Environmental Community Action (NAPECA) grant programs.

The 2022 Council Session, with a theme of "Community-led Environmental Education for Sustainable Development," focused on activities from across North America that support an understanding and awareness of key environmental concerns, from the perspective of communities directly impacted and working to develop and share best practices for adapting to a changing climate.

The significance of this theme is timely, as it promotes the development of local and context-specific strategies as well as an international cooperative approach for managing and responding to environmental and socio-economic risks across the whole of society. This year's Council Session addressed several topics supporting the development of community-led projects and initiatives. The exchange with the Joint Public Advisory Committee, the Traditional Ecological Knowledge Expert Group (TEKEG) and the CEC Secretariat, led to a constructive discussion of immediate priorities and pressing needs, including opportunities ranging from specific, innovative, and nature-based solutions to the improved use of traditional and local knowledge, including the incorporation of Indigenous perspectives.

At the 2022 Session, in addition to the announcement of the large-scale and multi-year initiative totaling C\$1 million to strengthen community resilience to climate change, the Council:

- Announced an additional US\$2 million to launch a new cycle of the EJ4Climate grant program that will focus on projects supporting environmental education to build resilience to climate change. The EJ4Climate grant program supports underserved and vulnerable communities, and Indigenous communities, in Canada, Mexico, and the United States to prepare for climate-related impacts.
- Announced a C\$750,000 initiative to undertake work to support enhanced uptake of circular economy approaches with sustainable production and consumption patterns in North America.
- Contributed C\$300,000 to support a JPAC-led initiative that will raise awareness in the three countries to advance sustainable forestry and responsible consumption of wood products.
- Endorsed a C\$300,000 TEKEG-led initiative to address threats to food security by increasing our understanding of traditional Indigenous practices and knowledge related to food systems.
- Engaged with the winners of the 2022 CEC Youth Innovation Challenge from Canada, Mexico and the United States on their innovative and tangible solutions to assist communities in their recovery from the COVID-19 pandemic.
- Reviewed the progress made under the ongoing CEC Operational Plan and the projects endorsed last year.