



EXECUTIVE OFFICE OF THE PRESIDENT
COUNCIL ON ENVIRONMENTAL QUALITY
WASHINGTON, D.C. 20503

February 8, 2016

Dr. Paul Ganster, Ph.D.
Chair, Good Neighbor Environmental Board
Associate Director, Office of International Programs
San Diego State University
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San Diego, CA 92182-5102

Dear Dr. Ganster:

Thank you and the Good Neighbor Environmental Board (GNEB) for the December 11, 2015 Advice Letter to the President expressing concern about adverse environmental impacts from climate change risks in the U.S.-Mexico border region. President Obama recognizes the threats that climate change poses to the border region, and has prioritized protecting these communities and ecosystems. The Administration appreciates the recommendations in the 2015 GNEB advice letter to the President, and will continue to work hard to ensure the resilience of the border region in the face of climate change.

The White House Council on Environmental Quality (CEQ) has coordinated this response with the Federal agencies represented on the GNEB, which include: the Department of Energy (DOE), Department of the Interior (DOI), Department of Health and Human Services (HHS), Department of Homeland Security (DHS), Department of Transportation (DOT), Environmental Protection Agency (EPA), U.S. International Boundary and Water Commission (USIBWC), National Oceanic and Atmospheric Administration (NOAA), and the U.S. Department of State (State Department).

The following highlights Administration actions or suggestions pertaining to GNEB's recommendations:

- 1) ***Convene stakeholders from both sides of the border to share information on responses to threats to water supplies.***

In the face of the current drought in the Western United States, the Administration recognizes the importance of securing water supplies and preparing for future extreme droughts perpetuated by climate change. This recommendation directly aligns with the Administration's efforts to protect water supplies, including work currently underway through the National Drought Resilience Partnership and NOAA's National Integrated Drought Information System.

The USIBWC is responsible for applying the boundary and water treaties between the United States and Mexico. Water sharing of the Colorado River between the U.S. and Mexico is dictated by the 1944 Water Treaty, which is implemented through binding agreements known as Minutes. Minute 319, a 5-year agreement from 2012-2017, gives the U.S. and Mexican



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governments new tools to address the impacts of drought and climate change. It also sets the stage for cooperation between the two countries for many years to come. The Colorado River is going through a period of historic drought, and this agreement provides information and water-sharing agreements, should drought conditions worsen and reservoir levels decline.

Additionally, 13 U.S. Federal agencies, including EPA, NOAA, DOE, DOI, and the U.S. Department of Agriculture (USDA), are members of the Gulf of Mexico Alliance (GOMA), a forum for local, state, and federal agencies and other interested parties from the U.S. and Mexico. Through GOMA, Federal agencies will continue to share knowledge and expertise related to the priority topic areas of data and monitoring, coastal resilience, education and engagement, habitat resources, water resources, and wildlife and fisheries.

2) *Enhance storm water harvesting, ground water recharge and ecological water flows to respond to both flood and drought risks.*

With regards to storm water harvesting and groundwater recharge, EPA strongly promotes and supports binational green infrastructure initiatives along the U.S.-Mexico border that mitigate storm water runoff. EPA's Border 2020 Program is the latest environmental program implemented under the 1983 La Paz Agreement, and emphasizes regional, bottom-up approaches for decision making, priority setting, and project implementation to address the environmental and public health problems in the border region. Under the Border 2020 Program, EPA funds green infrastructure projects in Mexico to support climate change resilience, including flood and drought prevention. Supported projects will train local community leaders on best practices for gaining maximum benefits from green infrastructure. EPA is focused on building local expertise, and partners with the North American Development Bank (NADB) to fund Border Environment Cooperation Commission (BECC)-led green infrastructure trainings in the border region.

The U.S. Fish and Wildlife Service (USFWS) engages in many water management activities that focus on responding to times of high flows and to times of drought. In January 2016, the Desert Landscape Conservation Cooperatives Desert Flows Database was released and provides a review of 407 ecological flow studies that have been conducted in the geography of the American Southwest, many of which abut or cross the international boundary shared by these two nations.

In addition, the US Army Corps of Engineers (USACE) Flood Risk Management Program works to focus the policies, programs and expertise of the Corps toward reducing overall flood risk. This includes the appropriate use and resilience of structures such as levees and floodwalls, as well as promoting alternatives when other approaches (e.g., land acquisition, flood proofing, etc.) reduce the risk of loss of life, reduce long-term economic damages to the public and private sector, and improve the natural environment.



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3) *Facilitate flood mitigation and watershed management efforts, especially systems with crossborder causes and effects.*

In 2015, the Administration released the Federal Flood Risk Management Standard (FFRMS), a flexible framework to increase resilience against flooding and help preserve the natural value of floodplains. Incorporating this Standard will ensure that agencies expand management from the current base flood level to a higher vertical elevation and corresponding horizontal floodplain to address current and future flood risk and ensure that projects funded with taxpayer dollars last as long as intended. Implementation of the FFRMS is being coordinated through the Federal Interagency Floodplain Management Task Force (FIFM-TF), whose purpose is to promote the health, safety, and welfare of the public by encouraging programs and policies that reduce flood losses and protect the natural environment. The FIFM-TF includes the Federal Emergency Management Agency (FEMA), USACE, NOAA, DOE, DOI, CEQ and others.

The NOAA Office for Coastal Management and the Texas General Land Office have facilitated the development and implementation of a Watershed Protection Plan in the Arroyo-Colorado watershed along the Texas/Mexico border. Using funding provided by the NOAA Office for Coastal Management's National Coastal Zone Management Program, the Texas General Land Office funded the implementation of key pieces of the Arroyo-Colorado Watershed Protection Plan. Additionally, the Tijuana River Valley Recovery Team is a forum in which Federal agencies work with partners to restore the Tijuana River floodplain and balance wetland ecosystems.

In order to mitigate flooding and improve watershed management along the border, EPA is collaborating with USDA, San Diego State University, University of California at Irvine, and the Center for Scientific Research and Higher Education in Ensenada to develop models that will determine sediment loading and flood impacts using a sub-basin of the Tijuana watershed under various land-use and rainfall scenarios. These models will help to measure the impacts of sediment-control, land development practices and flood control projects (e.g. river channelization).

The U.S. Forest Service (USFS) also plays a key role in watershed management and protection—the agency manages 193 million acres (78 million hectares) of national forests and grasslands that contain 400,000 miles (644,000 kilometers) of streams, 3 million acres (1.2 million hectares) of lakes, and many aquifer systems that serve as the largest source of drinking water in the contiguous United States. In addition, the USFS partners with states and NGOs to help landowners and communities manage forest lands that provide drinking water to more than 180 million people. For example, as part of the Administration's Resilient Lands and Waters Initiative, the USFS is partnering with DOI and the state of California to restore the health of California's primary watershed through coordinating funding and addressing policy barriers across all lands.



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Ecological water management is also taking place along the last section of the Rio Grande, associated with the Lower Rio Grande Valley National Wildlife Refuge. USFWS is applying ecological principals to help restore areas along the international border in South Texas by managing water flows to simulate seasonal flooding and address the full range of historic hydrologic conditions. USFWS has applied to the State of Texas for an instream flow water right, which could be utilized in the future to distribute flood waters in an ecologically progressive manner.

4) *Promote efforts to advance integrated wastewater resource management, innovative technologies and green infrastructure along the border with the goal of providing clean, reliable and affordable water, wastewater and storm water services.*

EPA and the Mexican National Water Commission (CONAGUA) are partnering with Federal and state governments and local communities on the U.S.-Mexico Border Water Infrastructure Program to deliver reliable, affordable drinking water and wastewater treatment infrastructure that meets local needs and reduces raw sewage discharges into binational waters. EPA is also working with local communities, such as Anthony, New Mexico, to increase knowledge of sustainable strategies such as Smart Growth, and using tools to improve water quality in the Upper Rio Grande Region.

Also, the BECC and NADB support efforts to advance green infrastructure and innovative technologies. The BECC and NADB certifies and finances environmental infrastructure projects in the border region, including water and wastewater treatment, pollution control, and energy efficiency. Since 1995, approximately 215 projects have been financed, with \$2.49 billion dispersed for these projects as loans and grants by the NADB.

5) *Promote and incentivize green infrastructure and prioritize its financing for both domestic and binational projects.*

In October 2014, the White House released the Priority Agenda on Enhancing the Climate Resilience of America's Natural Resources. This agenda called for several steps to provide information and incentives to develop and evaluate green infrastructure, expand collaboration, and provide technical assistance to help communities implement green infrastructure for both coastal protection and stormwater management. The Administration will continue to actively work to implement and advance the goals of the Priority Agenda.

As part of the North Atlantic Coast Comprehensive Study process, in January 2015, the USACE released the report "Use of Natural and Nature-based Features (NNBF) for Coastal Resilience." The report provides a framework for identifying and evaluating opportunities to integrate natural and nature-based features into coastal resilience and risk reduction. The framework is a major contribution to a common interagency ecosystem resilience framework and decision-support tool in development under the Priority Agenda.



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The U.S. Department of Housing and Urban Development, EPA, USDA, DOD, DOI, DOE, and DOT came together in 2014 to form the Green Infrastructure Collaborative, a network of Federal, non-governmental, and private-sector entities committed to helping communities more easily implement green infrastructure.

NOAA's Digital Coast helps people learn more about and take advantage of opportunities to use green infrastructure by maintaining a web portal with relevant online training, information, and other resources, including interactive maps and visualization tools. Additionally, the Climate Resilience Toolkit is becoming a hub for information relevant to green infrastructure.

6) *Promote the understanding of ecosystem services and co-benefits of nature-based and carbon mitigation options in water infrastructure projects (e.g., green infrastructure) and coastal adaptation measures (e.g., living shorelines).*

In 2015, the Administration took three major steps to promote ecosystem services in response to recommendations from the President's Council of Advisors on Science and Technology; the State, Local, and Tribal Leaders Task Force on Climate Preparedness and Resilience; and the Hurricane Sandy Task Force:

- On August 27, 2015, the White House Office of Science and Technology Policy (OSTP) released a new research agenda recommending areas for prioritized Federal research that will support the integration of coastal green infrastructure into risk reduction, resilience planning, and decision making.
- On October 7, 2015, the White House Office of Management and Budget (OMB), CEQ, and OSTP released new guidance directing Federal agencies to incorporate consideration of ecosystem services into Federal planning and decision-making. This guidance broadens the Federal government's focus from coastal green infrastructure to include all types of ecosystem services. Within six months, agencies will develop descriptions of current practice and work plans that will identify priority policies or programs targeted for incorporation of these approaches, which will be further refined upon release of the final implementation guidance.
- On November 3, 2015, CEQ released a new Presidential Memorandum that includes goals and standards for mitigating the impacts of future developments on natural resources.

These recent policy steps build on and coordinate efforts across the Administration. For example:



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- In 2013, FEMA issued a policy promoting the consideration of ecosystem services in benefit cost analysis for acquisition for open space projects funded under Hazard Mitigation Assistance programs. FEMA is currently building on that policy to:
 - Apply ecosystem service valuation to other Hazard Mitigation Assistance programs related to drought, wildfire, and flood
 - Consider sea level rise for mitigation project development and include expected risks in the benefit cost analysis
 - Develop efficiencies for pre-calculated benefits for ecosystem services for flood acquisitions, wind retrofits, and certain wildfire projects to facilitate expedient evaluation of project cost effectiveness.

7) *Coordinate efforts across and along the border to prepare for new vectors and vector-borne diseases, as well as other potential health effects related to temperature increases and other climate risks.*

The U.S.- Mexico Border Health Commission (BHC) continues to coordinate with state, regional, and local health departments and epidemiologists to facilitate sharing of information across border states in the U.S. and in Mexico. The BHC most recently convened its Border Binational Infectious Disease Conference in 2014 to enhance processes for cross border sharing of information, improve communication protocols, establish regional surveillance networks, and identify top priorities for binational collaboration.

Within DHS, the Office of Health Affairs (OHA) and FEMA are leading efforts to ensure DHS properly anticipates changes health effects related to changing climatic conditions, including preparation for new vectors and vector-borne diseases. OHA and FEMA are active participants in ongoing international discussions regarding the relationship between climate change and disease risk.

8) *Using existing executive orders, and reflecting community concerns, continue to support, plan and design for the reduction of wait times at the border crossings from Mexico into U.S. border communities—initially through management efforts and full staffing and in the longer term through physical infrastructure improvements.*

U.S. Customs and Border Protection has direct responsibility for enhancing U.S. economic competitiveness. By reducing costs for industry and enforcing trade laws against counterfeit, unsafe, and fraudulently entered goods, CBP is working to enable legitimate trade, contribute to American economic prosperity, and protect against risks to public health and safety. CBP is continually evaluating opportunities to reduce border wait times and facilitate the flow of legitimate trade and travel at the nation's ports of entry. Recent efforts to reduce border wait times include:



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- Launch of CBP Border Wait Times App for mobile devices– Available in both the iTunes store and for Android devices through Google Play, the App provides estimated wait times and open lane status at land ports of entry allowing travelers to make an informed decision of where and when to cross the border.
- Trusted Traveler programs– Utilization of Trusted Traveler programs such as Global Entry, NEXUS, and the Secure Electronic Network for Travelers Rapid Inspection program allows expedited clearance for pre-approved, low-risk travelers upon arrival in the United States. Participants may enter the U.S. by using dedicated primary lanes at Southern land border ports.
- Trusted Trade programs– The Free and Secure Trade program is a commercial clearance program for known low-risk shipments entering the U.S. from Canada and Mexico. Initiated after 9/11, this innovative trusted traveler and trusted shipper program allows expedited processing for commercial carriers who have completed background checks and fulfill certain eligibility requirements.

Under the Border 2020 Program, EPA is pursuing emissions reductions at the border. EPA currently has seven projects aimed at addressing mobile source emissions and the impacts from trade across the U.S.-Mexico border, five of which will specifically target reducing wait times and in turn air emissions at the two busiest ports of entry. Three more projects will be funded through public-private partnerships.

9) *All federal agencies should target border urban and rural communities to enhance and increase support for their energy efficiency and security in the face of growing energy demand risks.*

Under the Border 2020 Program, EPA plans to implement at least three projects aimed at mitigating greenhouse gas emissions by increasing energy efficiency in homes or schools, piloting waste-to-energy technologies such as methane capture, and promoting renewable energy in border communities.

Several other EPA initiatives will also work to build climate resilience through alternative/renewable energy projects and increased efficiency, impacting the U.S.-Mexico Border. In the El Paso-Ciudad Juarez metropolitan area, sludge from Juarez's sewer treatment plant is being used for energy cogeneration. Non-recyclable solid waste is used to generate energy for a cement producer in Chihuahua. A pilot demonstration program has been built at Juarez's Industry Chamber Association building to demonstrate to its members the benefit of energy efficient systems.

10) *Federal leadership is necessary to enhance the ability of border communities to respond to emergencies such as heat waves, flooding, coastal inundation and wildfires, especially*



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when U.S. and Mexican border communities are affected. An important first step is to modernize and make relevant to border realities the 1980 U.S.-Mexico Agreement on Cooperation during Natural Disasters.

Under the Border 2020 Program, EPA is working on training binational emergency responders to prepare for severe weather events, such as intense storms, flooding and severe drought.

The BHC currently convenes stakeholders and identifies mechanisms to communicate, coordinate, and collaborate to address specific public health issues impacting the border. The BHC is prepared to apply input and recommendations to enhance the ability of border communities to respond to environmental emergencies.

DHS has noted considerable improvements in the ability of border communities to respond in emergency situations, and welcomes continued attention to this issue and the opportunity to identify additional solutions to support cross-border cooperation during natural disasters.

In closing, I want to thank you and the board members for your dedicated service on the Good Neighbor Environmental Board. Your expert advice is an invaluable resource that helps make our government do its business better. We are fortunate to have your counsel, and look forward to the board's continued engagement.

Sincerely,

A handwritten signature in cursive script, reading "Jainey Bavishi", is written over a horizontal line.

Jainey Bavishi
Associate Director for Climate Preparedness