

## FLOOD PROTECTION TEAM

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## RECOGNIZING COMPREHENSIVE BENEFITS IN USACE AND FEMA PROGRAMS

### Business Nexus

California's Capital Region remains one of the most at-risk regions in the Nation for flooding, and also represents a region with multiple opportunities for ecological restoration. Significant Federal investment has been made in many urban areas, but Federal agencies have struggled to approve and fund projects that protect the region's rural and agricultural areas, including its many small, disadvantaged communities. Our region's businesses form an integrated economic web, whether they are located in cities, suburbs, rural areas, or disadvantaged communities. Therefore, the success of our region's business depends on the entire region improving together.

### Requested Action

The U.S. Army Corps of Engineers (USACE) and the Federal Emergency Management Agency (FEMA) should work with interested parties to develop detailed and comprehensive policies, across the Federal family, designed to ensure fair consideration of comprehensive benefits for all communities, including when developing project cost estimates, in light of principles of environmental justice.

FEMA, USACE, and the White House Office of Management and Budget (OMB) consistently rely on a cost-benefit analysis system to prioritize Federal water resource project investment. While Federal funds need to be spent wisely, the current system unintentionally biases investment toward areas with high property values at the expense of disadvantaged, rural, and agricultural communities. FEMA has acknowledged that the cost-effectiveness requirement is a significant barrier to funding

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for underserved communities. On October 6, 2022, FEMA released a memorandum that provides an alternative methodology to reduce the cost-effectiveness burden for disadvantaged communities. This methodology uses a 3% discount rate, instead of the previous 7% discount rate, to lessen the impact of the time-value of the dollar being less than the present-day dollar. On average, benefits for disadvantaged communities increased by 12% for residential acquisition activities, increased 86% for utility hardening activities, increased 86% for flood mitigation activities, and increased 58% for stream restoration activities.

Nevertheless, communities may only apply this alternative methodology to the Fiscal Year 2022 FEMA Building Resilient Infrastructure and Communities (BRIC) and Flood Mitigation Assistance (FMA) programs. Therefore, we seek for the Federal government to further prioritize frameworks that are mindful of social and environmental justice and that recognize all of the benefits of a Federal water resources project across multiple funding sources. California's Central Valley Flood Protection Plan, a comprehensive plan to reduce flood risk, relies on significant multi-benefit flood risk and ecosystem restoration projects to mitigate risk and provide resiliency against the uncertainties associated with the changing climate. A vast majority of these opportunities exist in areas that may otherwise not meet traditional Federal investment requirements.

Executive Order (EO) 14008, signed by President Biden on January 27, 2021, made it a goal of the Federal Government to deliver 40 percent of the overall benefits of certain Federal investments to disadvantaged communities that are marginalized, underserved, and overburdened by pollution.<sup>1</sup> Commonly referred to as the Justice40 Initiative, USACE has committed to maximize benefits to disadvantaged communities through programs such as Planning Assistance to States, Floodplain Management Services, and the Tribal Partnership Program, as well as through studies and construction projects for flood and coastal storm risk management, and aquatic ecosystem restoration. As stated by Assistant Secretary of the Army for Civil Works, Michael L. Connor, "I am committed to furthering the administration's goals under the Justice40 Initiative to ensure that marginalized communities are supported by the Corps of Engineers with critical infrastructure that provides healthy ecosystems and helps them to reduce their flood risks." Furthermore, on December 20, 2022, President Biden signed into law the Community Disaster Resilience Zones Act which will build disaster resilience across the nation by creating and designating resilience zones which identifies disadvantaged communities most at-risk to natural hazards. These designated zones will receive targeted support to access federal funding, such as increased federal cost-share to plan for resilience projects that will help them reduce impacts caused by climate change and natural hazards.

In order to advance EO 12898 and EO 14008, the White House Council on Environmental Quality (CEQ) has developed a Climate and Economic Justice Screening Tool (CEJST) which is intended to help agencies identify disadvantaged communities to ensure that everyone is receiving the benefits

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intended from Federal programs. The CEJST, which we understand is not used by many agencies, uses eight different datasets to identify communities that are overburdened and underserved. These eight datasets – covering climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development – expand the designation of disadvantaged community status beyond simple socioeconomic criteria like household income. Some Federal agencies use similar tools such as FEMA’s use of the CDC SVI tool. FEMA also allows other State and local tools to be incorporated. Meanwhile, USACE is not a granting agency and doesn’t currently rely on a tool. Effective tools are critically important in establishing an appropriately inclusive and consistent means of identifying disadvantaged communities beyond simple socioeconomic criteria like household income.

To justify flood risk reduction projects, USACE (and FEMA to a considerable extent) considers a limited set of benefit categories, such as structure and content damage, and assesses those using traditional methods. For example, FEMA’s BCA tool does not allow for a full exploration of social and environmental benefits, which limits social benefit analysis to projects involving residential structures and allows environmental benefits to be applied only when the project results in proposed land-use changes. This approach excludes benefits to disadvantaged communities, greenhouse gas reduction activities, an evaluation of potential community co-benefits, and other potential community benefits outside of the traditional mental stress and anxiety and lost productivity benefits currently allowed. More work must be done to explore different approaches to this issue to capture comprehensive benefits, especially for disadvantaged communities:

- Under existing policy, USACE must evaluate a reasonable set of proposed project alternatives and find that the chosen alternative has public benefits that outweigh costs, following the evaluation of six “Guiding Principles”: (1) Healthy and Resilient Ecosystems; (2) Sustainable Economic Development; (3) Floodplains; (4) Public Safety; (5) Environmental Justice; and (6) Watershed Approach. (Principles and Requirements for Federal Investments in Water Resources, March 2013). Unfortunately, reliance on the second principle (sustainable economic development) has significantly displaced use of the other principles because it is relatively easy to measure and is comparable across projects. USACE should work with interested parties to develop concrete examples of where the other principles can be successfully used, such as the recognition of ecosystem benefits and an increased effort at recognizing qualitative public and life safety benefits. An example of USACE successfully applying this approach in our region is the Hamilton City Flood Damage Reduction and Ecosystem Restoration Project: flood protection for a disadvantaged community that struggled for years to find Federal interest, and only succeeded once environmental benefits were considered.
- Even within the traditional cost-benefit analysis, USACE and FEMA should further consider how they characterize system resilience and the uncertainties related to hazards. For example, FEMA grants can be based on USACE levee fragility curves for which the “value” of

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resilience is either not captured or inconsistently captured in the benefit; but is the value being defined as a community's ability to withstand and recover from flooding? And for rural and disadvantaged communities, fragility curves do not typically exist, putting these small communities at a disadvantage in securing federal funding. Related to climate change, FEMA is focused on quantifying climate change to a level of water surface elevation increase as opposed to qualitatively addressing the concern by using existing climate change analysis developed by states or regions. The quantification of climate change and science is constantly evolving, and small communities do not have the resources to create this level of detail for which reviewers are requiring. Finally, USACE's calculation of benefits is traditionally based on hydrologic models which often ignore the increasingly uncertain climate and the impacts of extreme weather in the context of riverine hydrology.

- Where USACE, FEMA, or OMB do use a traditional benefit-cost ratio, they should allow for the use of lower ratios, or lower discount rates, where disadvantaged communities cannot generate the higher property and contents values that drive Federal investment toward more affluent areas, or in areas that protect key public infrastructure such as highways, water/wastewater treatment facilities, or power generation facilities. As noted above, while FEMA has initiated a pilot program for its BRIC program consistent with this suggestion, it still uses an artificial limit and it is only in effect for one year.
- Federal agencies should reevaluate BCA criteria to allow for greater flexibility in quantifying utility "loss of function." The standard values and methodologies often fail to capture the full consequences of infrastructure or critical facility failure. For example, the standard value for loss of electric power service does not allow for an exploration of the cascading impacts of failure if an electric power provider offers redundancy to a water provider's service area. Flexible application of FEMA's standard values for utility services is necessary to quantify a range of potential cascading impacts to service populations.

To date, the Administration's efforts to better capture comprehensive benefits for flood risk reduction projects appear to largely be an internal function, with little change apparent in what projects receive Federal investment. For example, USACE continues to make progress in evaluating benefits through its Engineering with Nature (EWN) initiative, which provides support for areas that don't fit into the traditional federal cost benefit rubric. Similarly, the Biden Administration's Nature Based Solutions Roadmap helps federal agencies more fully account for the value of nature in regulatory and funding decisions. And the Executive Orders and piloted changes to BRIC mentioned above reflect a Federal acknowledgement of the need for comprehensive and transparent change, but we have not yet seen that change effectuated. As the Administration prepares to post a notice in the Federal Register to update the Principles, Requirements and Guidelines (PR&G) which govern critical project evaluation factors such as benefit-to-cost ratios, California's Capital Region looks forward to the opportunity to comment during this process and seeks the support of relevant

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Federal agencies and our California Congressional delegation to ensure that the region's priorities are reflected in an updated PR&G.

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1. Executive Order 14008 builds on EO 12898, signed by President Clinton in 1994, which directed each federal agency to avoid disproportionately high and adverse human health or environmental effects on low-income and minority populations.