

CALIFORNIA

Flood-related disasters are the costliest and most frequent type of disaster facing the United States. From 2000 to 2018, flood-related events cost more than **\$830 billion in economic losses**,¹ accounted for **73% of presidential disaster declarations**,² and caused more than **6,200 deaths**.¹ Floods are an **immediate threat to 53 military installations** across the nation.³

These numbers reflect what Americans and people across the globe already know: **floods are affecting our way of life**. Addressing the challenges posed by flooding and other extreme weather impacts will require individuals, communities, and state and federal governments to work collaboratively to build a more sustainable future for us all.

Surging Waters: Science Empowering Communities in the Face of Flooding is a report produced by AGU that shows how science is essential to finding solutions to mitigate flooding now and in the future. For more information, visit www.scienceisessential.org.

TO EMPOWER COMMUNITIES TO UNDERSTAND AND ADDRESS THEIR FLOOD RISK, POLICY MAKERS CAN:

- 1 Support robust and steadily increasing funding** to science-based federal agencies.
- 2 Support science centers and programs** that research region-specific flooding concerns and incentivize scientists working within their communities.
- 3 Support legislation** that ensures science can be conducted and inform policy freely and openly.
- 4 Support policies** to manage flooding and its impacts that account for a changing world.



Between 2000 and 2018, floods and flash floods in California caused: **\$3.9 billion** in property damages⁴



Between 2000 and 2018, floods and flash floods in California caused: **90 deaths**⁴



Flooding is an immediate threat **five military facilities** in California.³

The **U.S. Geological Service Water Science Centers** fund and conduct water research and monitoring **driven by state priorities**

CONTACT THE CALIFORNIA OFFICES:

Sacramento, CA: 916-278-3000

San Diego, CA: 619-225-6100

The **NOAA National Sea Grant College Program** supports coastal communities through research and extension programs **shaped by local needs**.

CONTACT THE MAIN OFFICE:

UCSD, La Jolla, CA: 858-534-4440

Email: caseagrants@ucsd.edu

BETWEEN 2010 AND 2019...

The **California Water Science Center**⁵ spent

\$122 MILLION

California Sea Grant⁶ spent

\$1.2 MILLION

...on California's flood research and education priorities.

PREPARE YOUR DISTRICT FOR FLOODS: ready.gov/floods. Assess your home or office's flood risk: msc.fema.gov.
NEED HELP NOW? Contact the California Governor's Office of Emergency Services: **916-845-8510**

1. NOAA. U.S. Billion-Dollar Weather and Climate Disasters. National Centers for Environmental Information (NCEI) (2019). Available at: <https://www.ncdc.noaa.gov/billions/>. (Accessed: 23rd July 2019) 2. The Pew Charitable Trusts. *Infrastructure Upgrades Can Help U.S. Businesses Better Withstand Disasters* (2019). Available at: <https://www.pewtrusts.org/en/research-and-analysis/articles/2019/05/15/infrastructure-upgrades-can-help-us-businesses-better-withstand-disasters>. (Accessed: 5th July 2019) 3. US Department of Defense. Report on effects of a changing climate. (2019). 4. NOAA National Centers for Environmental Information. Storm Events Database. Available at: <https://www.ncdc.noaa.gov/stormevents/>. (Accessed: 14th August 2019) 5. Reichard, S; California Water Science Center. Personal communication. (2019). 6. Courtier, C; California Sea Grant. Personal communication. (2019).