# US EPA Region 9 Water Division Update

Summer RTOC

Danielle Angeles
Suzanne Marr
Emmanuelle Rapicavoli
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# Water Division Update

Summer 2021 RTOC

#### • Outline:

- Update on Clean Water Act 106 Guidance Revision
- Review of Water Division Climate Change work with Tribes
- Update on Climate Change Adaptation Planning at US EPA

Update:

Clean Water Act Section 106 CWA Section 106
Guidance Revision

# Update: US EPA Climate Change Adaptation Planning



### EPA is working on climate change.

- to get climate change under control
- To build resilience to climate change impacts through climate adaptation planning and action

EPA Administrator Michael Regan speaks on Climate Change March 17, 2021

"Confronting Climate Change...

It's about opportunity:

the biggest one we have to build a brighter future...

It's not optional.

It's essential at EPA."

# Types of Climate Change Impacts



### **Climate Change effects can include:**

- Increasing temperature (air and water)
- Extreme storm events including hurricanes and typhoons
- Sea level rise (SLR)
- More extreme and frequent drought
- Changes in precipitation type (less snowfall)
- Ocean acidification

### **Secondary Impacts can include:**

- Extreme heat events
- Wildfires
- Flooding (coastal and inland, surface and groundwater)
- Debris flow & erosion
- Water supply unreliability
- Habitat & species changes

## Climate Change impacts Water Resources and Water Infrastructure

## Climate Change Terminology

Climate Mitigation – Actions to reduce emissions or sequester carbon, to lessen global warming and other climate change impacts, including disasters.

Climate Adaptation – Actions to build system resilience to current and future climate change impacts, including disasters

Resilience - Ability to prepare for, respond to and recover from climate change threats.

Cobenefits – When an action provides both climate mitigation and climate adaptation.

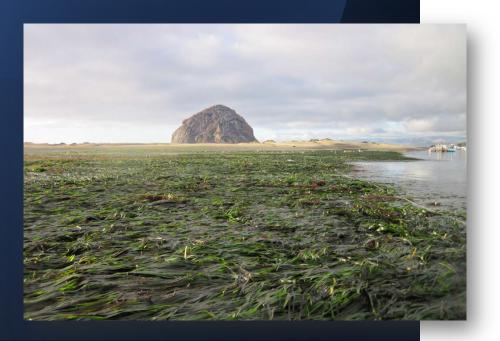
# Update: US EPA Climate Change Adaptation Planning



# EPA is updating our **National Climate Adaptation Action Plan**

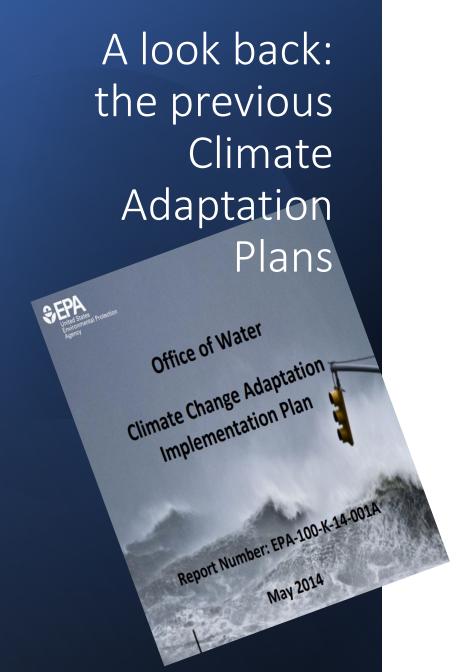
- Climate vulnerabilities (impacts)
- Protect human health and the environment as the climate changes.
- Integrate climate adaptation into EPA programs.
- Assist Tribes and other EPA partners to build their resilience to climate change impacts.

Update:
US EPA
Climate
Change
Adaptation
Planning



# EPA R9 will update the Region 9 Climate Adaptation Implementation Plan

- Climate vulnerabilities (impacts).
- Integrate climate adaptation into R9 EPA programs.
- Assist R9 Tribes and other EPA partners to build their resilience to climate change impacts.



# The previous editions of the Climate Adaptation Plans:

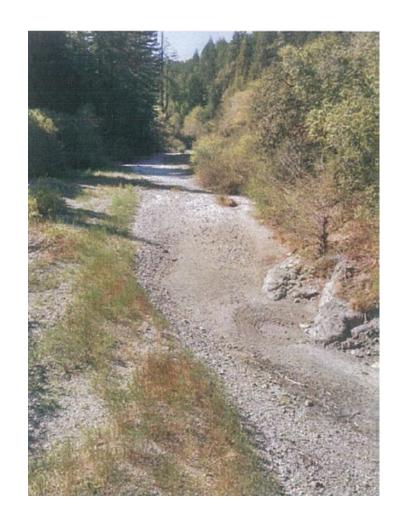
- EPA National Climate Adaptation Plan (2014)
- EPA National Office of Water National Water Program Climate Adaptation Implementation Plan (2014)
- R9 Climate Adaptation Implementation Plan (2014)

(click on the underlined titles for web links)

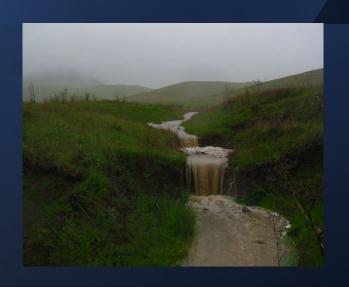
How is R9
Water Division
already assisting
Tribes to build
resilience to
climate
impacts?

#### • Water Infrastructure:

- Prioritize infrastructure projects that address water supply deficiencies related to drought.
- Prioritize infrastructure projects that support back up-power needs at tribal water and wastewater systems.
- Increased coordination with state and federal partners to identify water supply vulnerabilities.
- Technical Assistance to Tribal Water Systems:
  - Develop risk and resilience assessments and emergency response plans.



# How is R9 Water Division assisting Tribes already to build resilience to climate impacts?

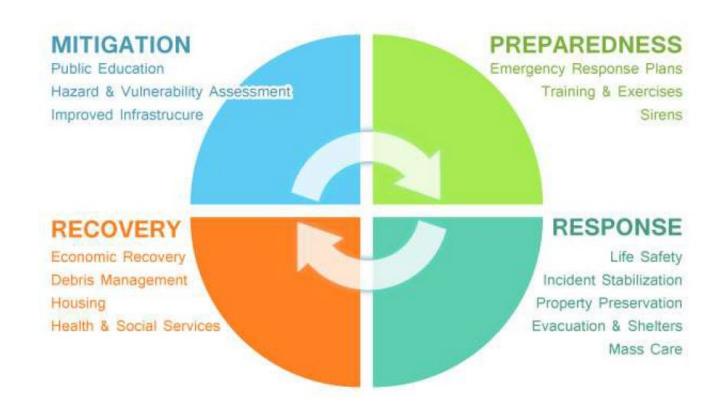


#### In addition –

- The Wetlands & Oceans Section, led by Sahrye Cohen, funds Wetland Program Development Grants that include protection of special aquatic resources vulnerable to climate change impacts.
- The Surface Water Branch, led by Ellen Blake, is available to discuss climate change impacts to tribal waters, including exploring ways to increase water re-use and protecting wetlands and other aquatic resources.

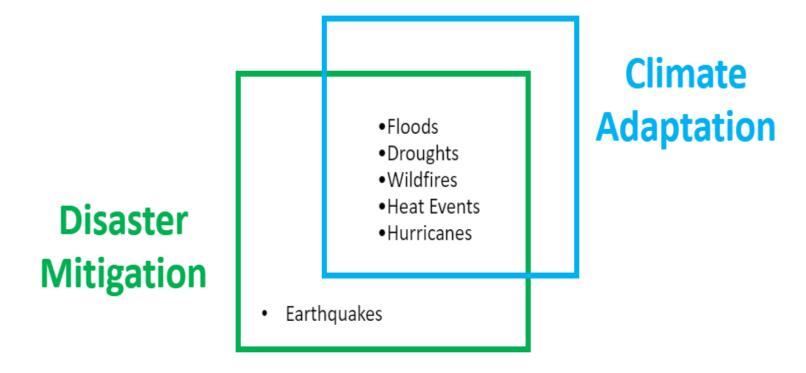
# On a related note... Disasters

Climate change impacts disasters.
So,
EPA works on disaster response, recovery & mitigation.



On a related note...
Disasters

Also,
Climate Change Adaptation work
overlaps with
Disaster Mitigation work



EPA R9 is identifying how we can better assist partners to build resilience to disasters.

Resources for Climate Adaptation and Disaster Mitigation



**US EPA Climate Change home page** 

**US EPA Climate Change Adaptation Resource Center** 

**Addressing Climate Change in the Water Sector** 

**Climate Change Indicators** 

**Regional Resilience Toolkit** 

Being Prepared for Climate Change: Checklists of Potential Climate
Change Risks

**Fourth National Climate Assessment (2018)** 

How can we better assist Tribes with Climate Adaptation and Disaster Mitigation?



#### **EPA** provides

- ☐ Financial Assistance
- **☐** Technical Assistance
- ☐ Other Assistance, such as
  - facilitating communication with other agencies, or
  - supporting conversations on environmental issues.

#### **Questions:**

- **☐** What climate impacts and disasters are you facing?
- What are your barriers to building more resilience?
- ☐ How can EPA help you build resilience to
  - climate change impacts and
  - the next disaster?

## Thank you.







- Suzanne Marr
- marr.suzanne@epa.gov
- Emmanuelle Rapicavoli
- Rapicavoli.Emmanuelle@epa.gov

