

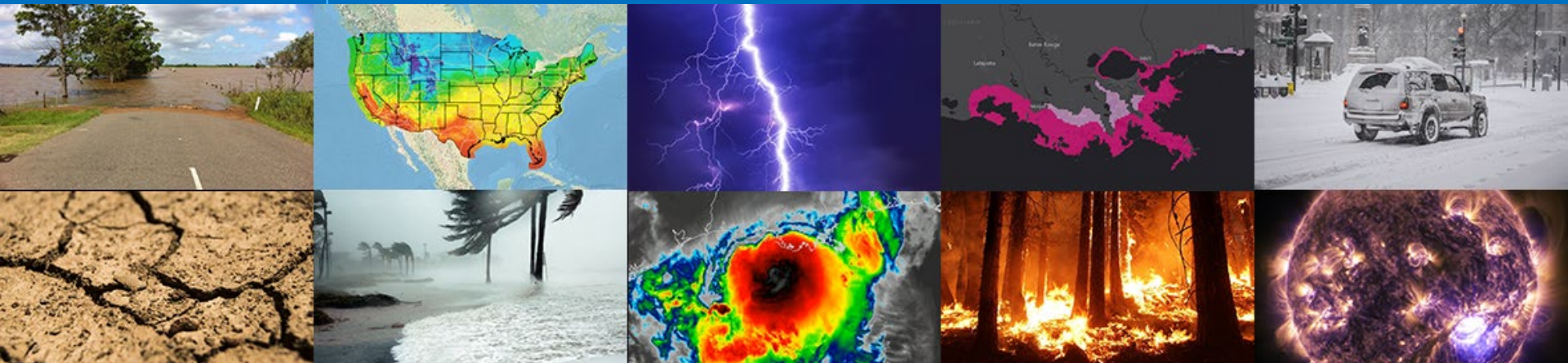


NATIONAL
WEATHER
SERVICE

S2S IDSS - Developing Climate Partner Relationships with NWS

Wednesday, May 10, 2023

By Chelsea Peters, Steve Baxter, and Marina Timofeyeva



S2S IDSS - Developing Climate Partner Relationships with NWS

- Learn how the NWS is working towards expanding climate IDSS with partners
- Learn how decision-makers are utilizing NWS climate IDSS
- Learn how NWS climate partnerships can be mutually beneficial to our service partners



How the NWS is working towards expanding climate IDSS with partners



Climate and IDSS

Impact-based Decision Support Services (IDSS) is defined as the provision of relevant information and interpretative services to enable Core Partners' decisions when weather, water, or **climate** has a direct impact on the protection of lives and livelihoods.

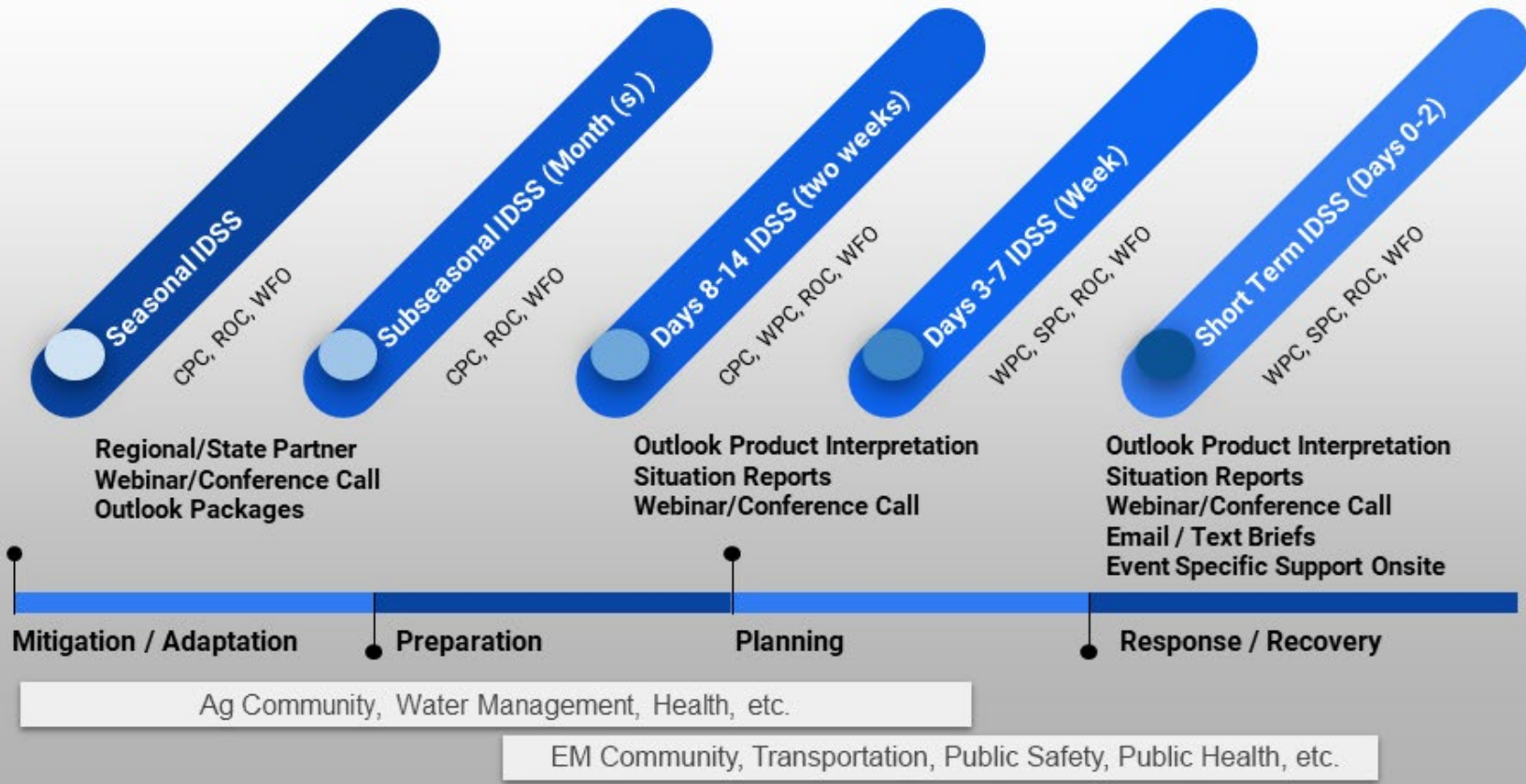
IDSS In Practice

- Relationship Building
- Identifying Partner Needs
- Proactive/Reactive Partner Questions
- Provide Timely Information





S2S Services in the IDSS Continuum



How decision-makers are utilizing NWS climate IDSS



Examples of successful NWS Climate Partnerships

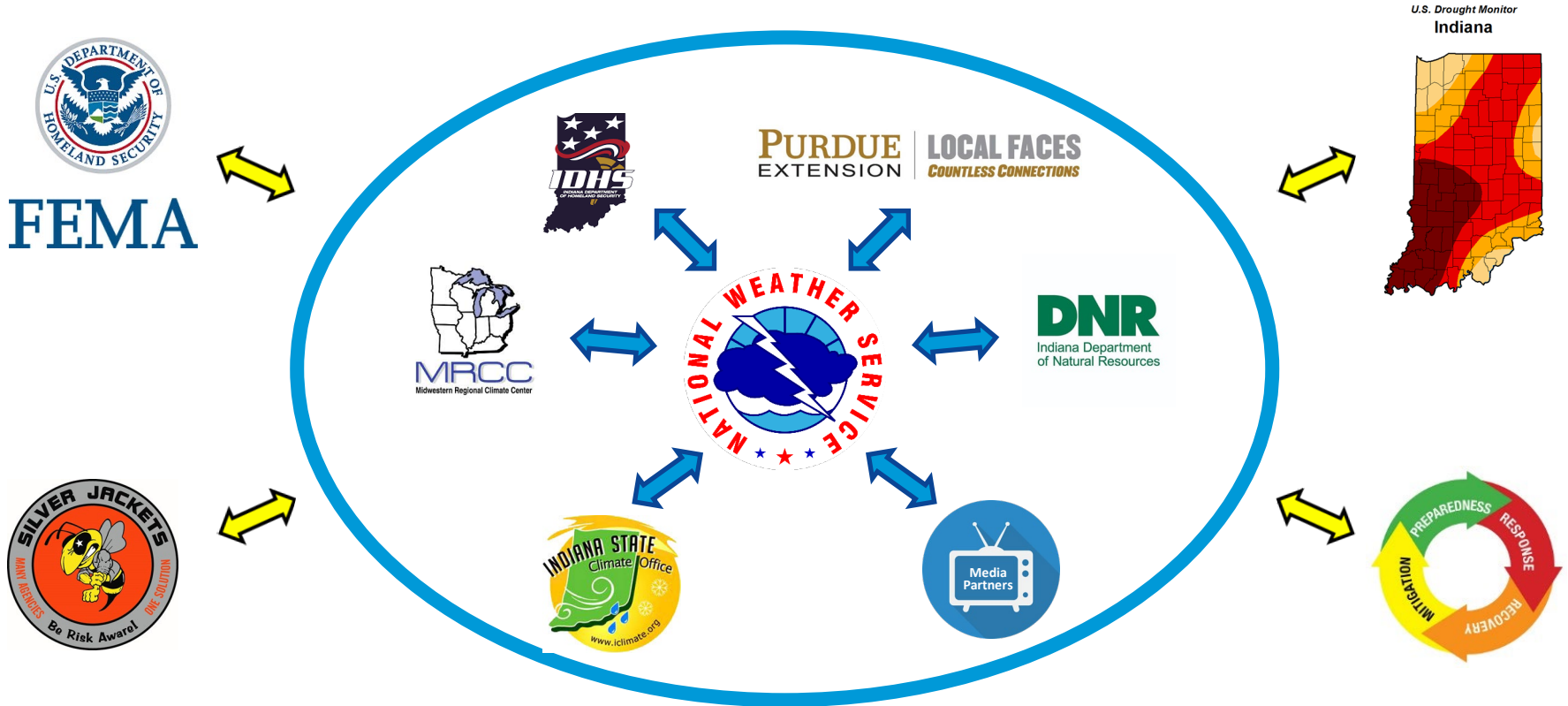
Indiana State Climate Services Team:

NWS Chicago, Northern Indiana, Indianapolis, Wilmington, Paducah, Louisville

- Began in January 2012 after a collaboration meeting between Indiana NWS Climate Services focal points and state climate office
- Idea initially was to get a team of people from all areas of the weather enterprise that serve Indiana with climate needs
- Team quickly became relevant as one of the worst droughts in Indiana recorded history developed in Spring 2012
- As of early 2023, over 35 NWS/state/local/regional members



Indiana Climate Team Partners



Examples of successful NWS Climate Partnerships

NWS Phoenix - Extreme Heat Community Engagement

- NWS Phoenix collaborates year-round with county, state, academia, media, and community partners about extreme heat
- Participates in workshops, weekly calls, policy meetings, and media interviews



Extreme Heat Community Engagement @ WFO Phoenix

Paul Iniguez, paul.iniguez@noaa.gov

Heat Alert



Health and Wellness for All Arizonans

Excessive Heat Warning Issued for 13 Counties

National Weather Service has issued an Excessive Heat Warning for:

Gila, La Paz, Maricopa, Pinal, Yuma Counties from 10 a.m. on June 17 to 8 p.m. on June 22;

Graham, Greenlee, Pima Counties from 11 a.m. on June 17 to 7 p.m. on June 22;

Cocino and Yavapai Counties from 10 a.m. on June 17 to 8 p.m. on June 21;

Mohave County from 11 a.m. on June 17 to 11 p.m. on June 22;

Santa Cruz County from 11 a.m. on June 18 to 7 p.m. on June 22;

Cochise County from 11 a.m. on June 19 to 7 p.m. on June 22.

Daytime highs are expected to be in the **110 to 120 degrees Fahrenheit range**. Residents are advised to stay cool, stay hydrated, and stay informed.

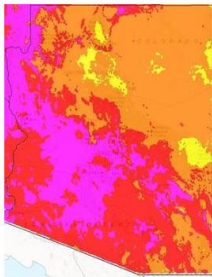
Precautions to prevent heat exhaustion or heat stroke:

Stay in air-conditioned buildings.

Limit outdoor activity during the hottest part of the day (mid-day).

Check on at-risk friends, family, and neighbors at least twice a day.

Drink water before, during, and after working or exercising outside.



Click [here](#) to learn more about today's heat risk map.

Some features on this page are experimental - feedback is appreciated!

Phoenix, AZ

Updated at 1:00 PM on Wed Jun 25, 2023

No Active Alerts

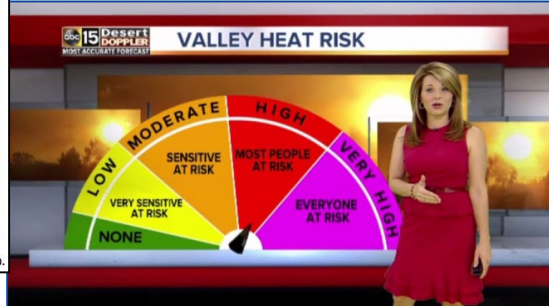
Wed	Thu	Fri	Sat	Sun	Mon	Tue
59	62	62	65	66	62	56
38	37	38	41	46	44	39

[HeatRisk Maps](#) | [Historical HeatRisk Data](#)

None	Low	Moderate	High	Very High
No risk.	Risk to those extremely sensitive to heat.	Risk to those sensitive to heat.	Risk to most people.	Risk to everyone.

- + Daily Records
- + Week 1 Overview
- + Week 2 Outlook
- + NWS Phoenix Heat Policy & HeatRisk
- + Heat Safety
- + Historical Heat Warning Dates
- + Heat Climate Stats

[Weather.gov/Phoenix/Heat](https://www.weather.gov/Phoenix/Heat)



NWS Experimental HeatRisk

National Oceanic and Atmospheric Administration

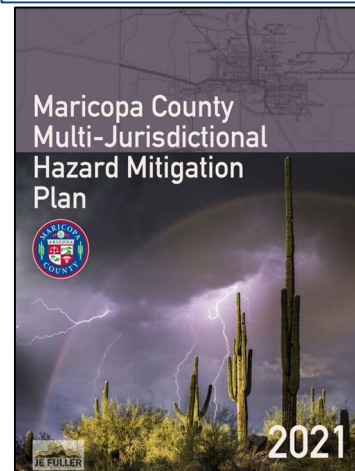
Identifying Potential Heat Risks in the Seven Day Forecast

Sun 6/5	Mon 6/6	Tue 6/7	Wed 6/8	Thu 6/9	Fri 6/10	Sat 6/11
Click map for potential heat risks and NWS forecast for a location.						

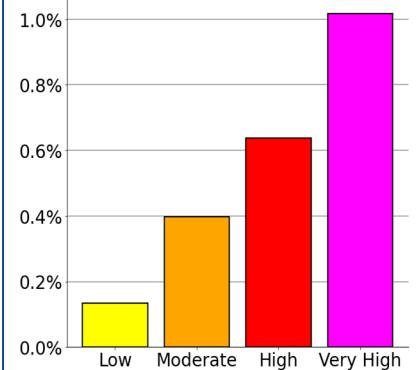
Heat affects everyone differently. In order to better address heat risk and allow you to prepare for upcoming heat events, the NWS has developed the experimental HeatRisk forecast. The NWS HeatRisk forecast provides a quick view of heat risk potential over the upcoming seven days. The heat risk is portrayed in a numeric (0-4) and color (green/yellow/orange/red/magenta) scale which is similar in approach to the Air Quality Index (AQI) or the UV Index. In a similar way, it provides one value each day that indicates the approximate level of heat risk concern for any location, along with identifying the groups who are most at risk. This product is supplementary to the official NWS heat watch/warning/advisory program and is meant to provide continuously available heat risk guidance for those decision makers and heat sensitive populations who need to take actions at levels that may be below current NWS heat product levels.

Category	Level	Meaning
Green	0	No Elevated Risk
Yellow	1	Low Risk for those extremely sensitive to heat, especially those without effective cooling and/or adequate hydration
Orange	2	Moderate Risk for those who are sensitive to heat, especially those without effective cooling and/or adequate hydration
Red	3	High Risk for much of the population, especially those who are heat sensitive and those without effective cooling and/or adequate hydration
Magenta	4	Very High Risk for entire population due to long duration heat, with little to no relief overnight

<https://www.wrh.noaa.gov/wrh/heatrisk/>
<https://vlab.noaa.gov/group/heat-risk>



Average Percent of 2020 ER Visits in Maricopa Co. by HeatRisk



Source: ADHS/ESSENCE, NOAA/NWS



Examples of successful NWS Climate Partnerships

Western Region Headquarters Regional Operations Center (ROC)

The ROCs provide Impact-based Decision Support Services (IDSS) to regional partners that span across multiple Weather Forecast Offices

- Regular climate support - FEMA's Regional Interagency Steering Committee (RISC) meetings
- National FEMA - Increased climate focus
 - FEMA regions reaching out to NWS for help with increased climate training and information
- WR/AR NWS, together with the RCSDs - helping FEMA X make connections with the wider climate community.
 - Recent connections include State Climate Offices, WRCC, the NOAA RISA, USDA Climate Hub, USGS CASC, etc.



FEMA



Cal OES
GOVERNOR'S OFFICE
OF EMERGENCY SERVICES



Climate IDSS During Statewide Response

Week-2 and Weeks 3-4 forecasts played a large role in the January 2023 Atmospheric River events in California



Deployment to California OES State Operations Center involves close coordination with emergency management, decision makers, media, etc.

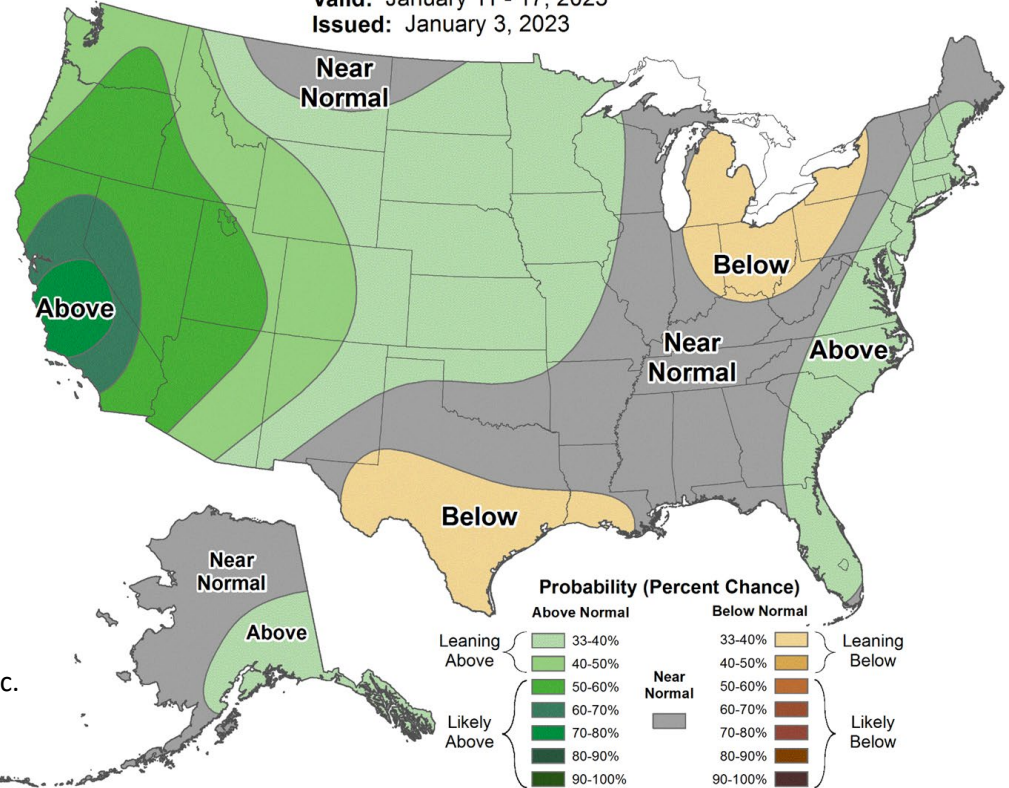


8-14 Day Precipitation Outlook



Valid: January 11 - 17, 2023


Issued: January 3, 2023



NATIONAL WEATHER SERVICE

Climate IDSS During Statewide Response

- This event in California was also one of the first times that Western Region has had the opportunity to coordinate with CPC on their Key Messages product
- This is a great product that allows us to share this Week-2 messaging with partners in a collaborative and coordinated fashion, and we look forward to working with CPC on these in the future



Decreased Impacts from Hazardous Winds, Snow, Rain Expected over the West Coast by Late Next Week

Issued January 4, 2023
Updated January 10, 2023

Effective January 18, 2023

KEY MESSAGES

Following an extended period of persistent mid-level low pressure anchored over the North Pacific that led to a series of atmospheric river events, there is increasing confidence that (a) mid-level high pressure will be positioned over the West Coast as early as January 20th, leading to a potential break in hazardous conditions.

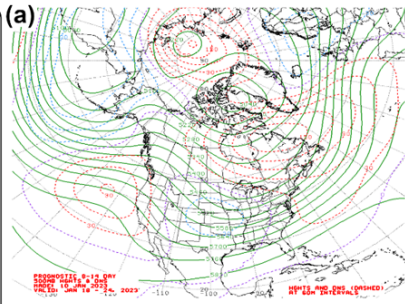
Timing: Hazardous conditions are expected to continue through January 18, 2023*.

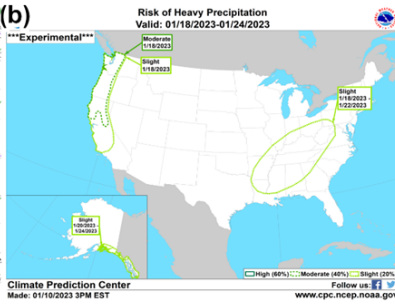
(b) Moderate risk of heavy rain is highlighted for northern California, western Oregon and Washington State January 18.

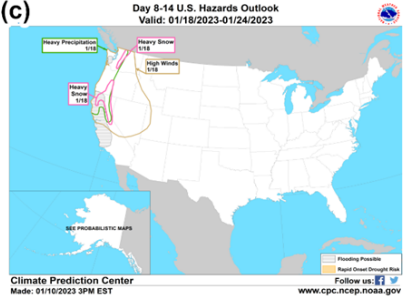
(c) In addition to heavy rain, heavy snow is likely over the Sierra Nevada and the Cascades. High winds are likely over parts of California, Oregon, Washington, Idaho, and Nevada. Flooding is possible for western California.


Prolonged heavy rain and accumulated impacts from the series of storms has led to saturated soils and flooding across portions of the Western U.S. Heavy rain along the West Coast is expected to increase the risk of prolonged flooding and the potential for shallow landslides in some areas. High winds could lead to coastal erosion and may exacerbate localized flooding.

* For short-term forecasts (prior to January 18), visit www.wpc.ncep.noaa.gov and weather.gov.

(a) 

(b) 

(c) 



National Oceanic and Atmospheric Administration
U.S. Department of Commerce

Climate Prediction Center
www.cpc.ncep.noaa.gov

***Key messages are subject to change due to changes in forecast information and tools.

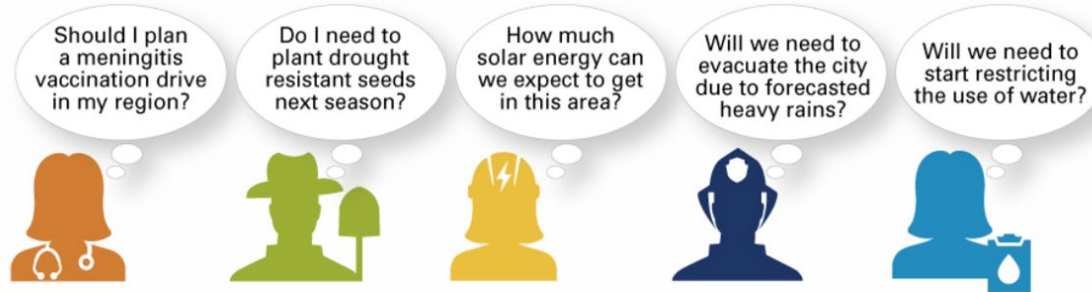


How NWS climate partnerships can be mutually beneficial to our service partners

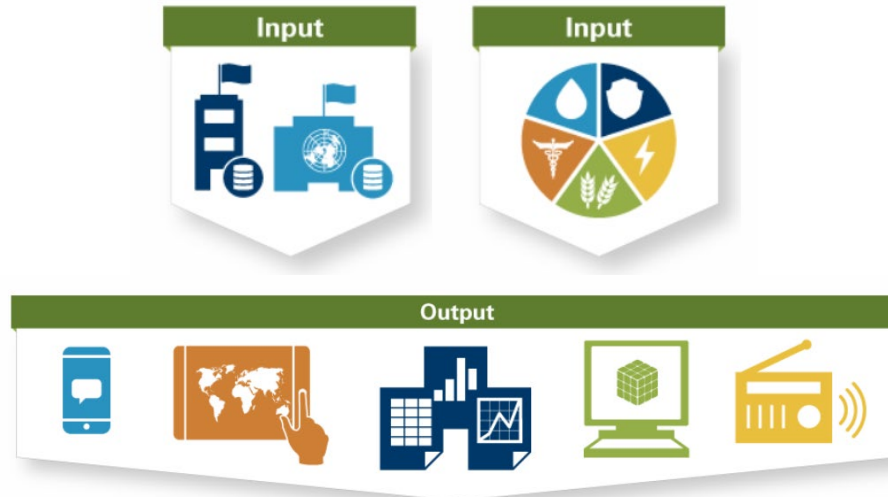


Climate IDSS Areas of Application

Climate services provide climate information to help individuals and organizations make climate smart decisions



National and international databases provide data, maps, risk and vulnerability analyses, assessments, and long-term projections and scenarios.

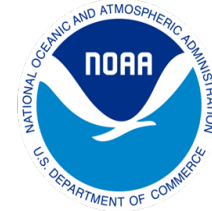


Socio-economic variables and non-meteorological data may be combined, depending on user needs.



NWS Climate Partnership Benefits

- We benefit from understanding and learning from decisions made by our end users.
- Our service partners can play a role in getting information to us that we can use to improve IDSS.
- Collaborating with NWS ensures clear communication and messaging are aligned beforehand.



Quality Climate IDSS = Teamwork!

NWS Connections

Local and regional NWS contacts

- Weather Forecast Office Climate Service Leads, Meteorologists-In-Charge, and Warning Coordination Meteorologists
- Climate Service Program Managers
- Regional Climate Service Directors
- The people you meet here!

**Let's stop working in silos -
reach out and make connections!**

*To email anyone within NOAA - email address is their:
firstname.lastname@noaa.gov*



NWS Climate Service Program Managers:

- Eastern Region - Christopher Stachelski
- Central Region - Audra Bruschi
- Southern Region - Victor Murphy
- Western Region - Andrea Bair
- Alaska Region - Brian Brettschneider
- Pacific Region - Elizabeth Vickery

NCEI Regional Climate Service Directors:

- Western Region - Joseph Casola
- Eastern Region - Ellen Mecray
- Southern Region - Sharon Mesick
- Central Region - Doug Kluck
- Alaska Region - Jessica Cherry
- Pacific Region - John Marra



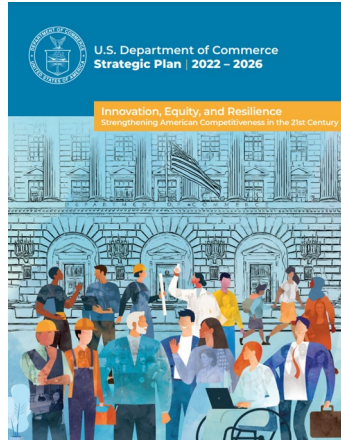
Thank You!



Background



New Policy Drivers



2022-2026 DOC Strategic Plan goals include:

- Address the **Climate** Crisis Through Mitigation, Adaptation, and Resilience Efforts
- Provide 21st Century **Service** with 21st Century Capabilities



2022-2026 NOAA Strategic Plan goals include:

- Build a Climate Ready Nation
- Making Equity Central to NOAA's Mission
- Accelerate Growth in an Information-Based Blue Economy
- Improve operational capabilities



Climate Ready Nation - 2030

Vision Statement

*A thriving Nation whose prosperity, health, security, and continued growth benefit from **and depend upon** a shared understanding of, and collective action to reduce, the impacts of climate change*



- Climate Ready Nation will be implemented through a *scalable* matrix approach, with impact areas/mitigation and partner groups as the key components.
- Ensures alignment with NOAA's existing portfolio of climate products.
- NOAA services feed to many areas within matrix

Climate-Ready Nation Initial Risk and Focus Areas



Wildfire



Drought



Flood



Heat



Coasts



Marine Resources



Mitigation