National Oceanic and Atmospheric Administration

April 2024

Aware

Register for the NWS Extreme Heat Webinar

By: Kimberly McMahon, NWS Public Weather Services Program Manager

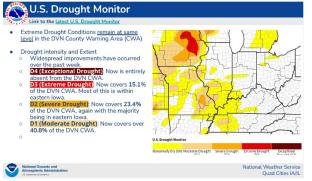
Extreme heat continues to be the leading weather-related killer, with the Centers for Disease Control and Prevention (CDC) estimating more than 1,220 deaths a year resulting from heat exposure. To help spread the word about heat dangers and preparedness, the National Weather Service (NWS) will be hosting a webinar for NWS partners and users to prepare for the upcoming heat season. This webinar is open to all NWS partners and users, including Weather-Ready Nation Ambassadors, media, emergency management, and federal, state, tribal, and local governments.

The webinar, on **May 13, 2024** from 1:00-2:00 PM EDT / 10:00-11:00 AM PDT, will provide information on the many NWS heat-related products and services issued across the agency, covering a continuum of timescales. The webinar will cover current operational heat-related products from the Climate Prediction Center, Weather Prediction Center, and local Weather Forecast Offices, and will detail the future plans and initiatives related to heat. Please <u>register here</u>.

NWS partners and users are also encouraged to follow and participate in the National Integrated Heat Health Information System (NIHHIS) Heat Safety Awareness Social Media Campaign, which will take place **April 29 - May 3, 2024**. Throughout the week, NWS partners and users can learn and share information about heat-related illness, pediatric vehicular heatstroke, personal risk factors associated with heat, and heat-related tools and resources. Just look for the hashtags #NIHHIS and #HeatSafety on your favorite social media networks.

New and Improved Drought Information Statements

By: Maggie Hurwitz, NWS Hydroclimatologist, and Kyle Brown, Meteorologist at NWS Northern Indiana



The modernized NWS Drought Information Statement (DGT) became operational on April 1st, 2024. No longer a text-based product, the modernized DGT format enhances local-to-regional drought messaging by consolidating local information into a graphical, more user-friendly presentation. The modernized DGT template incorporates auto-updating graphics and enables collaboration amongst neighboring offices. DGT products can be accessed at "Drought Information Statement" Weather Forecast Office webpages and are linked from a national DGT page at drought.gov.

Serving as a local drought messaging product for nearly two decades, the DGT synthesizes drought conditions, impacts, and outlooks. The DGT product includes local drought impacts, precipitation departure from normal, streamflow, fire risk, long-range temperature and precipitation outlooks, drawing on NWS and partner-provided drought indicators and tools, including the U.S. Drought Monitor and the

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NWS Climate Prediction Center's U.S. Monthly and Seasonal Drought Outlooks. DGTs deliver localized messaging to key partners, such as state climate offices, agricultural and water resources managers, and local media.

Suggestions for modernizing the DGT and making this product a more effective drought messaging tool were collected in 2021 and 2022 through the NWS Western States Drought Workshop and extensive field engagement. The experimental phase of this project was unveiled in September 2023. In the months that followed, numerous NWS Weather Forecast Offices issued DGT products in the modernized format, disseminating valuable information in an easy-to-use format.

The project development and operational implementation was facilitated by Maggie Hurwitz (Climate Services Branch), Keith White (EWX), Daniel Hartsock (PQX) and Kyle Brown (IWX).

First Ever Joint Meeting of the Climate Diagnostics and Prediction Workshop and Climate Prediction Applications Science Workshop

By: Jenna Meyers, Climate Services Outreach Coordinator



The 48th Climate Diagnostics and Prediction Workshop (CDPW) and the 21st Climate Prediction Applications Science Workshop (CPASW) were held jointly on March 26-29 in Tallahassee, FL. Organized and hosted by the Climate Prediction Center (CPC), Climate Services Branch (CSB), and Florida State University (FSU), this was the first time these two workshops were held concurrently, and the format was widely praised by attendees. Bringing these two workshops together allowed for a natural and enriching exchange between our science and service-oriented attendees while highlighting the importance of co-producing climate services with an interaction between end users, physical scientists, and social scientists.

The joint workshop provided a unique opportunity for over 160 participants, both in-person and online, to exchange information across all aspects of the climate science enterprise, from research and modeling to applications/tools and user engagement. Examples of collaboration include more intensive exchange between public and private sector organizations in the area of climate modeling and service delivery, participation of local NWS offices in university-organized climate community engagement (e.g., Climate Adaptation Partnership (CAP)), drought information coordination with state climate offices, joint flood activities, etc. Advances in technology and climate predictions identified user needs for climate research and information through the sharing of best practices, all working towards improving efficiency on the pathway from research to operations to services.

There were a number of invited guest speakers, including Pam Knox, University of Georgia Extension Climatologist, who spoke about the importance of science and service coming together towards the common goal of meeting stakeholder needs. She shared thought-provoking lessons from her perspective as an extension climatologist on the value of the intersection between data and research all the way to production, service, and communication in order to efficiently deliver products that are practical, economical, and useful for users. Dr. Paris Perdikaris from Microsoft shared rapid advances in Al and how those promise to dramatically impact not just weather, water, and climate prediction, but also how those predictions and projections are incorporated into decision making. This motivating talk generated

discussion around the sense of urgency and opportunity created by the AI breakthroughs in our field. Dr. David Zierden, Florida State Climatologist, helped participants understand challenges in climate services that are specific for the Southeastern U.S. Finally, the banquet speaker, Michael Berkowitz, Executive Director of the Climate Resilience Academy at University of Miami, brought a wealth of knowledge from his 100 Resilient Cities global network and how that initiative has sparked positive changes in many cities across the globe, leading to implementation of Resilience Officer positions and creative/combination green space areas.

The attendees provided great feedback and felt energized from the joint workshop's presentations, connections, and conversations during the week, and they are looking forward to future opportunities to expand on the topics this year's joint workshop covered.

From CDPW-CPASW participants:

"The blend of CDPW/CPASW exceeded my expectations. I think it's important to try to keep parity between more science-focused talks and applied talks. But the variety is pleasant."

"I thought that holding the two workshops together was a major highlight and allowed for more opportunities for collaboration and networking."

Access to the presentations and more information on past and future <u>CPASW</u> and <u>CDPW</u> events can be found on their respective websites.

Major Expansion of NWS Water Resources Web Services with the New National Water Prediction Service (NWPS)

By: Charles Ross, AFS/Forecast Services Division/Water Resources Service Branch

On Wednesday, March 27th, the National Water Prediction Service (NWPS, pronounced en-wips) replaced the longstanding <u>Advanced Hydrologic Prediction Service</u> (AHPS) with <u>https://water.noaa.gov</u> as the official one-stop shop for all NWS river forecasts and hydrologic data. The NWPS framework is designed to facilitate further expansion, with new water-related content that centralizes legacy web services.

The new site has an improved customer experience leveraging modern software, geospatial technology, and cloud infrastructure, allowing users to make sound decisions before, during, and after extreme water events such as floods and droughts, and also with respect to water management and more.

Key NWPS features include the following:

- New landing page with dynamic, fast navigation and more flexible query options for viewing hydrographs
- Interactive, improved individual gauge hydrographs
- New National Water Model guidance at the scale of individual river and stream reaches (over 3.4 million river miles), most of which is currently ungauged
- Real-time, revolutionary, and comprehensive Flood Inundation Map (FIM) forecasts, which currently cover 10 percent of the U.S. and will expand to 30 percent of the U.S. population by October 2024 and nearly 100% by October 2026

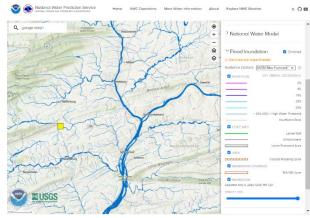


NWPS brings features from AHPS and OWP operational website into one webpage

- Quantitative Precipitation Estimates (QPE) layer with data back to 2005
- New National Snow Analysis Snow Depth and Snow Water Equivalent layers
- An <u>Application Programming Interface (API)</u> is available in addition to the traditional GIS data downloads to allow users to use data directly within their own applications and services

Additional references related to NWPS can be found below:

- <u>NWPS Product and Users Guide</u>
- <u>A User's Guide to National Water Prediction</u> <u>Service (NWPS) StoryMap</u>
- Recording of NWPS Partner Webinar
- <u>Recording of NWPS API Webinar</u>
- Flood Inundation Mapping Fact Sheet
- Flood Inundation Mapping Services Storymap
- <u>NWPS Overview Flyer</u>
- NWPS API Flyer



Flood Inundation Mapping in NWPS

Register Now for the Unifying Innovations in Forecasting Capabilities Workshop

By: NWS Staff

This summer, the Earth Prediction Innovation Center (EPIC) and the Unified Forecast System (UFS) in partnership with Jackson State University (JSU) will deliver a five-day <u>Unifying Innovations in Forecasting</u> <u>Capabilities Workshop</u> (UIFCW24) from July 22-26. Held at the Jackson State University Student Center in Jackson, MS, and available for virtual attendance, this workshop will focus on integrating sectors of the Weather Enterprise and fostering a community aligned with EPIC's mission, emphasizing government research, and the crucial role of community building. UIFCW24 is about engaging and uniting efforts to advance forecasting capabilities for a more informed future. The theme for this year's workshop is *Collaborative Progress in Earth System Modeling*.

Registration: Workshop registration is available <u>here</u>. This is a hybrid workshop open to in-person attendance, virtual attendance, or a combination of both. In-person registration will be limited to 200 attendees and must be completed by Sunday, June 30, 2024; on-site registration will not be available.

Presenting: Those who would like to present at the Unifying Innovations in Forecasting Capabilities workshop can submit an abstract through the <u>UIFCW 2024 Abstract Submission form</u> until May 31st. The May 31st deadline will not be extended, so be sure to submit abstracts in time to be considered. Presentations can be made in person or virtually, with virtual details forthcoming.

Accommodations. EPIC has reserved a block of rooms with Hilton Garden Inn Jackson/Downtown. Workshop attendees can make their reservations by calling and using the UIFCW24 group code or by making an online reservation through the <u>booking link</u>.

The UIFCW Planning Committee looks forward to meeting with presenters and attendees this summer to share scientific updates, collaborate on future priorities, and ensure continuous community feedback. Expect more information on the workshop agenda in a future announcement!

Support: For issues accessing or submitting registration, editing a submission to include an abstract (please include a PDF copy of the abstract to include), or for other questions, comments, or concerns, please email support.epic@noaa.gov.

NWS Detroit Tours East Detroit Resilience Hubs

By: Steve Considine, Senior Forecaster at NWS Detroit/Pontiac

<u>Climate Resiliency Hubs</u> are emerging in many large cities across the US, particularly in those with underserved communities with high social vulnerability. It is difficult for emergency management agencies in large cities with high poverty rates like Detroit to reach all of the various neighborhoods. Resilience hubs act like mini emergency management centers. Many are managed by or assisted by larger non-profit organizations. Because these hubs have a need for hazardous weather information, one avenue to reach some of the most vulnerable communities in urban areas is to work with these hubs and the organizations who help manage them.

NWS Detroit forecasters **Steve Considine** and **Trent Frey** participated in a tour of resilience hubs across the eastside of Detroit. The tour was led by Eastside Community Network (ECN), one of NWS Detroit's newest Weather Ready Nation Ambassadors, and consisted of roughly 40 people, including representatives from several Detroit non-profit organizations, the University of Michigan Department of Public Health, the Michigan Department of Environment, Great Lakes and Energy, and the City of Detroit Department of Homeland Security and Emergency Management.

The Resilient Eastside Initiative is a collaborative effort between the non-profit organizations ECN, Brilliant Detroit, Elevate, and the City of Detroit, and is a pilot network of hubs equipped with back-up power sources. Ranging in size from commercial sized buildings to small remodeled homes, they aim to bolster community resilience in the face of power outages, floods, heat waves, extreme cold, and other crises by serving residents in their respective neighborhoods. They also provide services that include health and wellness checkups, use of computers and printers, assistance with home repairs and utility payments, activity and learning centers for children, access to nutritional food and prepared meals, and use of kitchen appliances. Some also provide humanitarian type assistance to the area's homeless population. A few of these hubs help develop local businesses and buy and convert vacant lots into large gardens to provide nutritional produce for the community. In the event of a natural disaster, these hubs will typically be the first place area residents go to seek shelter or assistance.

The tour involved visiting the hubs and listening to short presentations about what each one does for the community. It began with a presentation at ECN and neighboring Capuchin Soup Kitchen, then continued to Brilliant Detroit's Chandler Park hub, Neighborhood Grocery, the Community Center at AB Ford Park, Bailey Park Neighborhood Development Corp., MACC Development – The Commons, What About Us, Inc, and concluded with the Georgia Street Community Collective.

This tour gave NWS Detroit the opportunity to connect with the leaders of these hubs and other community organizations. Given the impact that adverse weather



Megan Richards (near the door) describes to the tour what ECN does

has on these highly vulnerable communities, NWS Detroit aims to ensure these hubs receive our hazardous weather forecasts and encourages them to become Weather Ready Nation Ambassadors. These organizations and the residents of the neighborhoods they serve will also be invited to attend Skywarn and weather safety presentations that ECN has agreed to host.

To learn more about the resilience hubs that NWS Detroit visited during their tour, visit their pages below:

- Eastside Community Network (ECN)
- Capuchin Soup Kitchen
- Brilliant Detroit
- <u>Neighborhood Grocery</u>
- <u>The Community Center at AB Ford Park</u>
- Bailey Park Neighborhood Development Coordination
- <u>MACC Development</u> <u>The Commons</u>
- What About Us, Inc.
- Georgia Street Community Collective



From left to right: NWS Detroit Forecaster **Trent Frey**, What About Us Inc. founder **Tammara Howard**, and NWS Detroit Forecaster **Steve Considine**. What About Us, Inc. is a resilience hub and a new WRN Ambassador.



Aware

NOAA's National Weather Service, Analyze, Forecast and Support Office

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