

## NWS Works to Simplify Flood Watches and Warnings

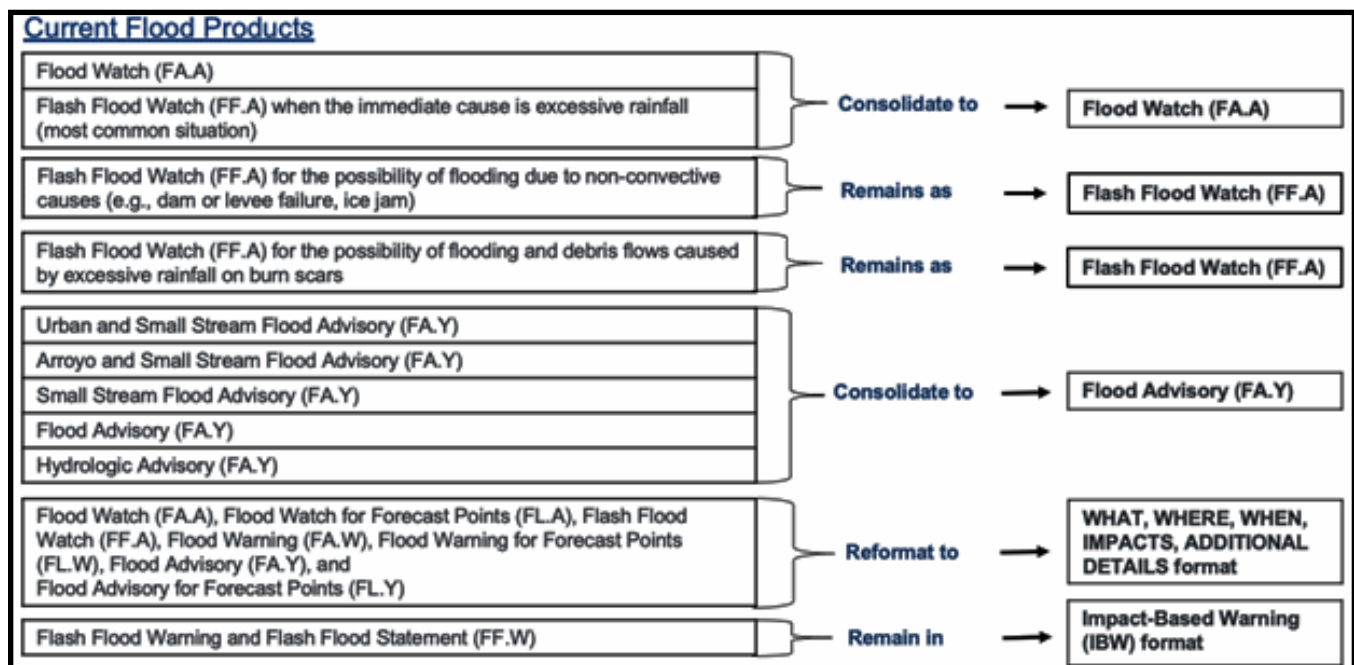
By [Daniel Roman](#), National Hydrologic Information Dissemination Services Leader, Silver Spring, MD

As a part of the NWS Hazard Simplification project, which aims to simplify forecasts and warnings, the NWS will consolidate or reformat its Flood Watches, Warnings and Advisories.

First, NWS is proposing to consolidate Flash Flood Watches and Flood Watches into one Flood Watch product resulting from excessive rainfall. NWS will continue to issue Flash Flood Watches for possible flooding due to non-convective causes (e.g., dam or levee failure, ice jams) and the possibility of flooding and debris flows caused by excessive rainfall on burn scars.

Next, NWS is proposing to consolidate the following five types of individual headlines associated with Flood Advisory products into one Flood Advisory: Urban and Small Stream Flood Advisories, Arroyo and Small Stream Flood Advisories, Small Stream Flood Advisories, Flood Advisories, and Hydrologic Advisories.

Finally, NWS is proposing to reformat its Flood Watch, Flood Watch for Forecast Points, Flash Flood Watch, Flood Warning, Flood Warning for Forecast Points, Flood Advisory, and Flood Advisory for Forecast Points into its “What,” “Where,” “When,” “Impacts,” and “Additional Details” format. The Flash Flood Warning and Flash Flood Statement will remain in the Impact-Based Warning (IBW) format. The table below summarizes the changes graphically.



NWS is proposing to implement consolidated and reformatted Flood Watches, Warnings, and Advisories within Hazard Services beginning on or after May 28, 2021. You can see examples of consolidated and reformatted flood products in the [Product Description Document \(PDD\)](#).

*Aware is published by NOAA’s National Weather Service to enhance communications between NWS and the emergency management community and other government and private sector partners as part of a Weather-Ready Nation.*

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## Virtual Ground Hog? Weather and Critters Keep Going During COVID

By [Tim Axford](#), WCM, NWS Pocatello, ID

Carrying on the tradition that some Emergency Management Officials in eastern Idaho refer to as the “best workday of the year,” WFO Pocatello hosted its 18<sup>th</sup> annual Groundhog Day and chili cook off. Like almost every other event in the past year, this event was virtual but still valuable and fun.

Despite the fact that many of our Emergency Management and Public Health Officials were wading through pandemic response and vaccination rollout while digging out from up to 3 feet of snow and responding to several avalanches, turnout was great!

The event drew more than 40 participants, spanning many partnering agencies, as well as representatives from two neighboring WFOs. On the heels of one of Idaho’s most significant recorded earthquakes (March 2020), Idaho State Geologist Dr. Claudio Berti provided a rundown of the impacts to the region and described the geological anatomy of Idaho, the country’s 5<sup>th</sup> most seismically active state.

The focus of the workshop then turned towards weather. Idaho Snow Survey Supervisory Corey Loveland of Natural Resources Conservation Service, presented what a day in the life of the Idaho Snow Survey looks like, including potential for future collaborative opportunities.

NWS Science Operations Officer Kurt Buffalo offered a look at the coordination involved in post-fire environments susceptible to debris flows in the West.

The WFO that offered a look at new NWS products and services such as the probabilistic forecast tools, which aims to communicate forecast uncertainty with winter weather impacts.

Service Hydrologist Link Crawford presented followed with a mid-winter snowfall summary and early spring flood outlook. Finally, Meteorologist in Charge Vern Preston wrapped up the event with the annual outlook from Idaho’s “Spud Hog,” who promised 6 more weeks of winter. Attendees were glad the building snowpack period was not over.

Since NWS hosted the event virtually for the first time, participants were encouraged to bring their homemade chili to their screen and share the recipe. The WFO will format the recipe into a small cookbook for participants. This partner event continues to be a premier partner gathering that participants ask about for months leading up to it.



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## Rip Current Forecasts Now Valid Out to 6 Days

Contact [Dennis Atkinson](#), NWS Office of Science and Technology Integration Marine Program Lead

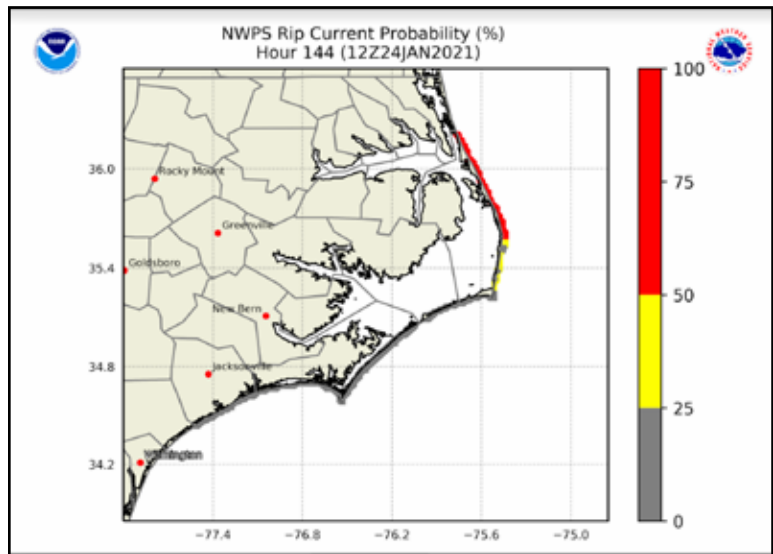
On February 3, NOAA significant upgraded its [Nearshore Wave Prediction System \(NWPS\)](#). NWPS provides on-demand, high-resolution model guidance to coastal Weather Forecast Offices (WFO).

As a part of this upgrade, the model will introduce its first hourly probabilistic hazardous rip current guidance up to 6 days out for the East and Gulf Coasts, Puerto Rico, Hawaii and Guam. NOAA developed this new guidance in partnership with the U.S. Lifesaving Association and validated it using lifeguard rip current observations. The NWPS enhancements should better protect property and, more importantly, save lives. Rip currents and other dangerous surf account for more than 100 deaths in the United States each year and 80 percent of rescues performed by beach lifeguards.

This update also offers hourly probabilistic erosion and overwash guidance for up to 6 days out for the East and Gulf Coasts. Coastal erosion is responsible for roughly \$500 million in property loss each year. Additionally, the upgrade includes:

- ◆ Enhanced wave system identification
- ◆ Improved view of wave guidance along high-impact tracks
- ◆ Improved representation of coastal geography and nearshore wave growth and propagation

The National Center for Environmental Prediction’s Environmental Modeling Center maintains the NWPS in collaboration with 36 coastal WFOs, the NWS Meteorological Development Laboratory, NOAA’s National Ocean Service, and the U.S. Geological Survey. The next model version will include enhancements for the West Coast and Alaska Region.



*Hazardous rip current prediction along the coast of Morehead City, NC. Red area is an exposed region with a greater than 50% chance of a dangerous rip current. Gray contour indicates a sheltered region with reduced risk.*

## WRN FLYERS Works to Make Aviation Safer for All Pilots

For more info, contact [wrn.flyers@noaa.gov](mailto:wrn.flyers@noaa.gov)

The Aviation Weather Center, the Center Weather Service Unit in Olathe, KS, and WFO Pleasant Hill, MO, have teamed up to create a WRN Aviation Ambassador collaborative group called WRN FLYERS (FLYing Education, Resources, and Safety). The group’s goal is to provide opportunities for outreach and education and strengthen existing partnerships within the aviation community. Strong relationships between aviation forecasters and pilots help the aviation community become more resilient and better prepared for extreme weather.

The FLYERS initially reached out to the KC Aviators, a local aviation club in Kansas City. A majority of the members are general aviation (GA) pilots, who typically receive only basic weather training during flight school.

A casual conversation between one of the KC Aviators co-founders and aviation forecasters led to a seasonal hazards workshop. The group held its first workshop last November and focused on winter weather hazards including turbulence, icing and IFR conditions. The workshop also included a brief overview of each office’s aviation program. (You can view the workshop on [AWC’s YouTube webpage](#).)

Attendees also received continuing education credit through the FAA’s WINGS pilot proficiency program. WINGS rewards pilots who complete continuing education programs and includes weather training. Based on the positive response to the



winter workshop, the FLYERS are currently planning a virtual thunderstorm workshop for spring to build on new relationships with academia, flight instructors, and the National Transportation Safety Board (NTSB).

If you are interested in learning more about WRN Aviation Ambassadors, WINGS, or general aviation outreach, please contact the team at [wrn.flyers@noaa.gov](mailto:wrn.flyers@noaa.gov). You can find more information about [WRN Aviation Ambassadors on the WRN website](#).

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## Taking a Deeper Look at Wildfire and Debris Risk

By [Alex Tardy](#), WCM, NWS San Diego, CA

In late November and early December 2020, a series of Santa Ana winds blew into a dry southern California region increasing the already high fire risk. The result of the high winds and low humidity was new wildfires. Calfire was able to keep most fires under 500 acres, but another large wildfire, named Bond, erupted in a remote rugged region of the Santa Ana Mountains in Orange County.

The fire started in a home and spread rapidly through vegetation, consuming 7,000 acres before it burned out in an old lake. The Bond fire was relatively small for southern California, but the fire deeply burned the soil and vegetation on steep canyon walls along and south of Silverado Canyon, increasing the post-fire debris flow risk for area residents.

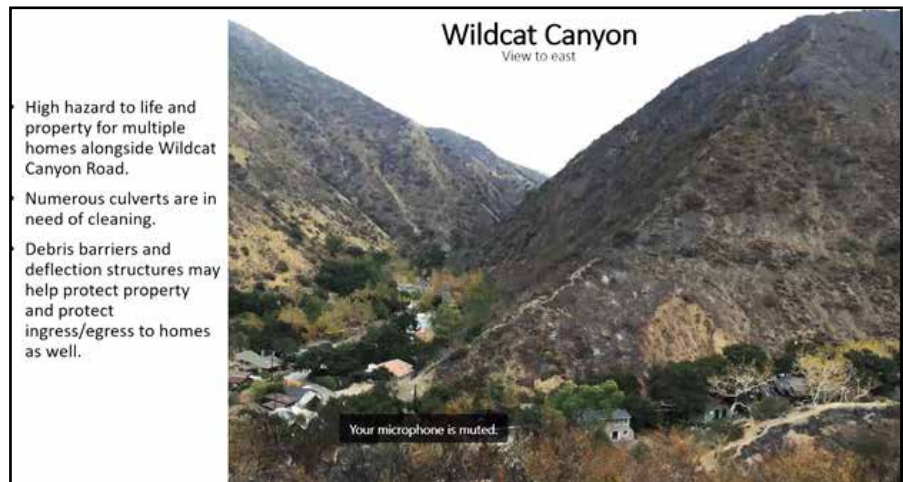
Calfire called a Watershed Emergency Response Team (WERT) investigation, similar to the U.S. Forest Service Burned Area Emergency Response process, to analyze the burn severity and get input for debris flow modeling.

The modeling resulted in the possibility of significant debris flow problems if rainfall went above 25 mm/hour.

The WERT team found dozens of year-round residences in White and Wildcat Canyons directly in the path of potential mud and debris flows.

The roadways are one way in and out of the canyons. Therefore, NWS and other partners agreed to use a lower threshold for Flash Flood Watches and Warnings for this burn scar. Since the WERT briefing, there have been special Orange County emergency management planning calls and additional planning meetings with CalOES.

Orange County plans to host a virtual Town Hall meeting to discuss the threats with citizens, explaining how a forecast could result in evacuation warnings and orders, as well as road closures. Citizens in this region already have dealt with power outages and road closures, in addition to evacuations, during the early December 2020 wildfire.



*Steep canyons with homes at the bottom within the drainages.*



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