

The Denver/Boulder National Weather Service Forecast Office

By Julie Malmberg, WWA

The mission of the NOAA National Weather Service (NWS) is to “provide, weather, hydrologic, and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas, for the protection of life and property and the enhancement of the national economy” (NWS 2004). There are 128 NWS Weather Forecast Offices (WFO) across the United States, Guam, and the American Samoa. The employees at each WFO perform specific tasks related to providing high quality weather, climate, and hydrology products. Several positions are common to all WFOs:

- The Meteorologist in Charge (MIC) manages each WFO. The Warning Coordination Meteorologist (WCM) acts as the liaison to the public.
- The Science and Operations Office (SOO) trains the staff in the current science and technological breakthroughs.
- The Data Acquisitions Program Manager (DAPM) is the administrator of data collection programs, including climate data.
- The Service Hydrologist manages all the hydrology programs such as streamflow forecasts and flood stages.
- Senior, General, and Intern Meteorologists issue forecasts, watches, and warnings.

In this article, we focus on the unique duties of the Service Hydrologist and one of the meteorologists, the Climate Service Focal Point.

The Denver/Boulder WFO is located in Boulder, Colorado and it covers 22 counties, over 29,000 square miles, and represents a population of 3.5 million people in northeast and north-central Colorado. The elevation in the coverage area ranges from 3,500 feet above sea level in northeast Colorado to over 14,000 feet at mountain peaks, which is one of the largest elevation ranges that any WFO covers. The Rocky Mountains complicate forecast-

ing because the giant peaks disrupt the flow of air currents; this causes regional and local changes in air temperature and humidity, and thus weather.

One novel aspect is that the WFO is collocated with the David Skaggs Research Center (DSRC), and the staff has easy access to current research on drought, water supply, snowpack, and climate change. The DSRC (Figure 14a) is the largest NOAA laboratory in the nation, making this an ideal location for interactions with many well-known experts in atmospheric science. The DSRC is home to over 900 scientists, including winners of the National Medal of Science, the Blue Planet Prize, and many who shared the 2007 Nobel Peace Prize for work on climate change issues. NWS meteorologists and hydrologists collaborate with NOAA scientists and attend scientific meetings, such as a weekly climate and weather discussion lead by NOAA meteorologist Klaus Weickmann.

The Denver/Boulder WFO strives to provide useful, accurate, and timely hydrology, climate, and weather information and products to all its customers, including water managers. The Service Hydrologist and the Climate Service Focal Point are two important WFO contacts for water managers (Figure 14b). Treste Huse is the Service Hydrologist for the Denver/Boulder WFO, and her main roles include managing the hydrology program for the WFO and providing NWS hydrologic support to the Colorado Emergency Management and other water resource agencies located in Denver and surrounding cities. The hydrology program involves monitoring and forecasting streamflows and river and lake stages, which can be complex due to the mountains, foothills, plains, and canyons in the region. Huse updates this information using an online hydrology product (Figure 14c). She assists local water resource managers by providing weather and hydrologic information to various task forces that address flooding, drought, water



Figure 14a. The Denver/Boulder WFO is located in the NOAA David Skaggs Research Center in Boulder, Colorado.



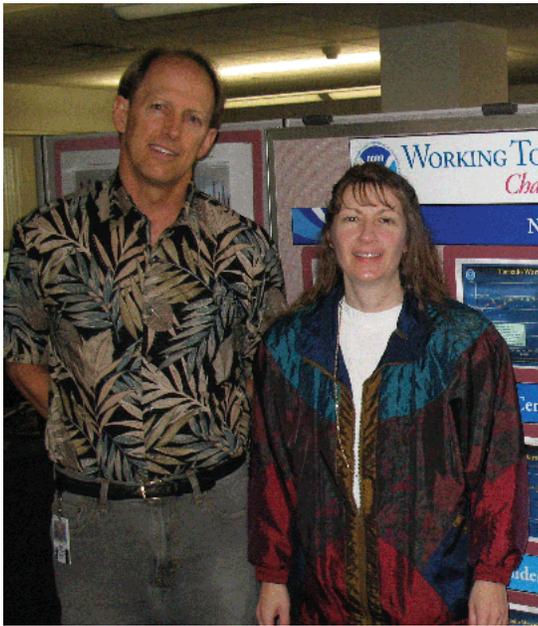


Figure 14b. Two friendly faces at the Denver/Boulder WFO: Mike Baker, Climate Service Focal Point, and Treste Huse, Service Hydrologist

with his primary forecasting and warning responsibilities, as CSFP he ensures that the WFO staff understands how to access and interpret climate outlook products and climate data search engines. The WFO commonly gets questions about climate, but most meteorologists are not trained in climatology. Baker also promotes climate education outreach via workshops, conferences, school talks, public lectures, and media interviews. He serves as the WFO’s point of contact for regional and national climate service offices, the public, and members of the climate community, including the Colorado State Climatologist, universities and state and local partners.

The Denver/Boulder WFO has a unique opportunity to collaborate with NOAA scientists, Western Water Assessment researchers, and local water managers. The geography and climate of the region make the weather hard to predict at times, but the WFO strives to provide current climate and weather information to its customers. Their website is continually updated and they encourage you to use it!

Thank you to Treste Huse and Mike Baker for all their help and information!

Works Cited

NWS (2004). “National Weather Service Mission Statement”. Available online: <http://www.nws.noaa.gov/mission.shtml>.

availability, and other water resource issues in Colorado.

Mike Baker is the Climate Service Focal Point (CSFP) and his job is to help the rest of the WFO staff keep up to date with current climate information and forecast tools, several of which are available on the WFO website (see On the Web box). Along

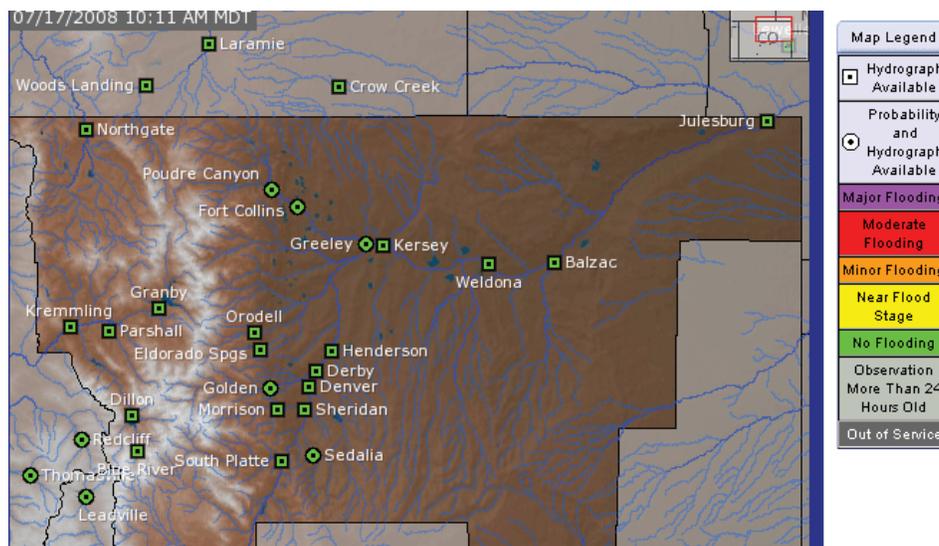


Figure 14c. A hydrology product issued by the Denver/Boulder WFO: major rivers in the region and their current flood stage.

On the Web

- Denver/Boulder WFO homepage: <http://www.crh.noaa.gov/bou/>; Phone: 303-494-4221.
 - Current hydrologic conditions and forecasts: <http://www.crh.noaa.gov/ahps2/index.php?wfo=bou>.
 - Local climate data: <http://www.weather.gov/climate/index.php?wfo=bou>.
- For a complete list of acronyms used by the NWS: http://www.srh.noaa.gov/jetstream//append/acronyms_a.htm.

