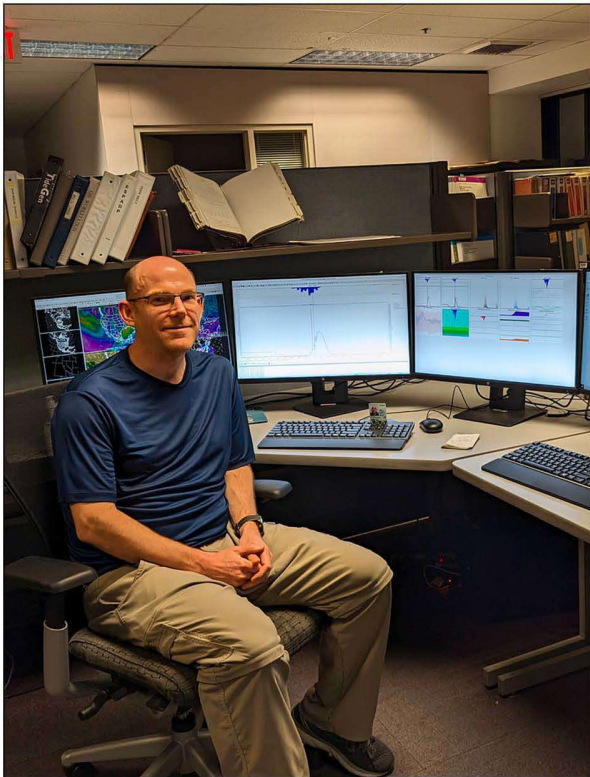


Nathan Patrick

Hydrologist

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The California Nevada River Forecast Center is one of 13 National Weather Service River Forecast Centers across the country. I work with a small team of colleagues with a variety of science backgrounds such as civil engineers, meteorologists, geologists and geographers to produce river and water supply forecasts for California, Nevada and portions of Oregon. Water is critical for our region and it is important to understand and model the water cycle. Using models that we configure and modify, we produce predictions for both short time periods, such as hours to days, as well as longer time periods up to several years for a variety of purposes. Some of the users of our predictions are emergency managers for flooding, fish and wildlife partners for aquatic health, reservoir operators, energy companies, the agriculture industry, municipal water supply management and recreational businesses.



Skills used: Strong math and an interdisciplinary science background. Additionally, computer skills such as a good understanding of GIS and computer programming (Python, R, etc.) are very useful. Inherently, all of my colleagues are curious to understand how the "physical environment" works so we can improve our predictions. Creative problem solving is one of the things I enjoy the most as my team often has to think of new ways to improve existing methods. We are constantly re-tooling our skills as technology and scientific understanding advances. The ability to adapt, communicate effectively, work as a team and learn new techniques are essential to be successful.



Recommendations to youth: My advice for high school students is to take an earth science class if they are interested in learning more about the Earth. Chemistry, physics and biology were a part of my HS college prep track but I wish I would have been exposed to other environmental science classes prior to college.

To learn more about a few of the many careers that connect with climate and climate change, visit go.osu.edu/climate-careers/.



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