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New Mexico Water *and* News

March 2022

UNM Student Water Research Award graduate student, Naomi T. Delay, collecting a grab-sample of spring water at Ojo del Rancho del Medio West spring.

UNM Student Receives Student Water Research Grant to Study the Impact of Forest Fires on Local Hydrology

by Marcus Gay, NM WRRI Sr. Student Program Coordinator

In 2016, the Dog Head Fire burned almost 18,000 acres of Cibola National Forest across the Manzano Mountains in central New Mexico. This fire may have impacted springs and wetlands in the area, which are susceptible to pressure from climate change, increases in groundwater pumping, land-use changes, and wildfires. A study that produces historical water quality data for spring systems is needed to better understand the possible impacts of this forest fire on the local hydrology.

NM WRRI has awarded Naomi DeLay, a graduate student at The University of New Mexico, a Student Water Research Grant to study two springs in the Cibola National Forest, the Ojo del Rancho del Medio and the Ojo del Rancho del Medio West springs. The study, titled *Hydrogeochemical Analysis of*

water composition of the springs. and if the springs will exhibit different trace element characteristics than other regional springs.

Read entire article by clicking here.

Meet the Researcher

Alfredo Granados-Olivas, Professor, Autonomous University of Ciudad Juárez

by Jeanette Torres, NM WRRI Program Coordinator

(UACJ). He has been a researcher and professor at UACJ for almost 35 years, and currently teaches five classes and advises eight students (five undergrad, two masters, and one doctorate). Granados-Olivas mentions that one of his most important roles is to promote successful agricultural engineering degree programs for students using a multimodal education system, which includes linking academic programs to agribusiness operations and government practices. Granados-Olivas states, “The responsibility of training new engineers with a philosophical approach to new challenges related to the holistic solutions to environmental problems is what makes a*good* engineer; however, a *great* engineer is one that has the ability to understand that a complex mathematical computer model that simulates a potential solution requires a human component that must be willing and able to assist in the desired outcome.” Granados-Olivas adds, “Therefore, we must teach and train a new generation of engineers with a high level of humanitarian commitment to balance the required equilibrium that we need to compromise with society while applying learned skills.”

Granados-Olivas has been associated with the New Mexico Water Resources Research Institute (NM WRRI) for many years as a key contributor in several projects, conferences, workshops, and other research activities. As a graduate student, I have spent a considerable amount of time working with NM WRRI, where I have obtained unwavering support and resources for his research from him. Granados-Olivas recounts that one of the most influential people he met at NM WRRI was the late Bobby J. Creel (associate and interim director of NM WRRI from 1986 to 2010), who understood the importance of his research and its proposed integrated binational components . He recalls Creel as being “a visionary of his time since he was also concerned with the transboundary approach to groundwater resources along the US and Mexico border.” Granados-Olivas found friends, mentors,

Read entire article by clicking here.

NM WRRI Faculty Water Research Grant Program
Fiscal Year 2022 Request for Proposals

Closing Date: 5:00 pm, March 21, 2022

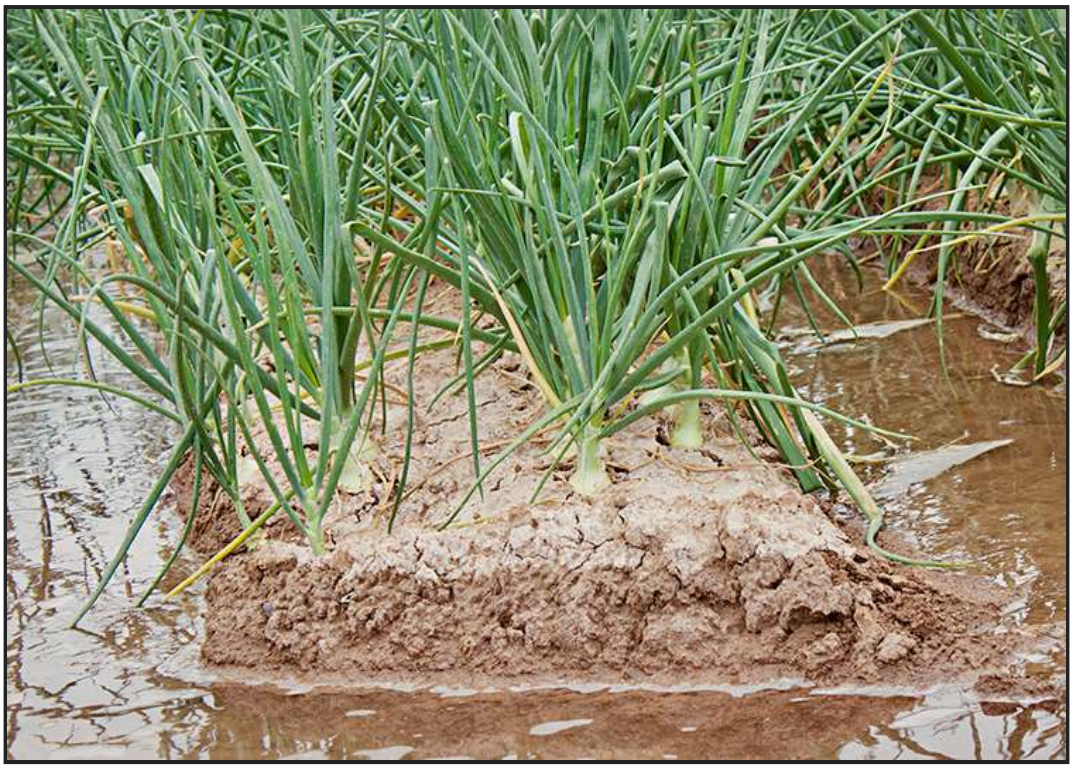
RFP Available at

FY 2022 NM WRRI Faculty Water Research Grant Program*

The New Mexico Water Resources Research Institute (NM WRRI) requests

improves planning and management of the waters of the state of New Mexico. For Fiscal Year 2022, NM WRRI anticipates funding three to five projects up to a maximum award of $33,000 per proposal. The final number of awards and project dollar amounts awarded will be determined based upon the availability of funds. Funding availability is contingent upon the US Department of the Interior disbursement of appropriations for FY22 104B Request for Proposals (RFP).

*A modification to the RFP was made, changing the cost-share match contribution to 1:1.



Furrow-irrigated onion crop in Doña Ana County.

NM WRRI Researchers and Collaborators Receive Funding to Study Sustainable Water for Agriculture

by Holly Brause, NM WRRI Research Scientist

Diminishing surface and groundwater supplies due to prolonged drought and climate change, and ongoing legal battles over groundwater pumping, threaten the availability of water for agricultural production in the Mesilla and Rincon Valleys of southern New Mexico. There is a growing need to find ways to conserve water for the long-term viability of regional agriculture. Regional fallowing strategies have emerged to meet this need, and a fallowing pilot program is already underway led by the New Mexico Interstate Stream

To address such questions, NM WRRI researchers and collaborators developed a transdisciplinary project titled, *Strategic Fallowing for Sustainable Water and Thriving Agriculture*. This project works closely with farmer stakeholders in all phases of the research to holistically study the potential systemic effects of fallowing in the Mesilla and Rincon Valleys.

Read entire article by clicking here.

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