

New Faculty Research Program

The WRI at CSUSB is beginning a new research program for faculty. This program encourages involvement from CSUSB faculty across all disciplines in research topics related to water issues, and this year we have a fund of \$20,000 for faculty research projects. This fund is expected to increase in the upcoming years, so a greater number of faculty opportunities will be offered. Some project ideas that we would like faculty to become involved with include:

- history of water use in the Coachella Valley
- administrative structure of disadvantaged communities (DACs)
- potential consolidation of DACs
- cataloguing archives
- studying the economic impact of water to the state

WRI Student Interns



Yvette Castellanos is a sociology major. She is a work-study student assisting with our USDA-EPA Internship Program for CSU Student Candidates.



Jose Contreras is a business administration major concentrating in marketing, and he is a President's Scholar. He is working on our Aerial Photographs project.



Dolores Mancha is a health science major concentrating in public health education. She is working on our Aerial Photographs project.

Water Resources Institute (WRI) Alumni Highlight



Juan Murillo-Perez recently earned his degree in public and oral history at CSUSB while interning at the WRI as a student archivist for the Salton Sea Collection

Project. He is continuing his work on this project as a Salton Sea Authority archivist at our new WRI CSUSB Palm Desert location.

Juan is from the Coachella Valley, and he has been an active advocate for the educational success of migrant students in the Coachella Valley through volunteer tutoring. Ultimately, his passion has always been to make history accessible to the public.

Through the Salton Sea Collection project, he is ensuring that crucial data on the Salton Sea area will be preserved and accessible to the public for education and to assist in the ongoing restoration and mitigating activity surrounding the sea.

San Bernardino Municipal Water Department Project

The WRI has partnered with the San Bernardino Municipal Water Department on a geographic information systems (GIS) project to identify areas within the City of San Bernardino for water conservation measures; the goal is to reduce the city's water use and costs. This project resulted in the development of an analysis model and map demonstration that ranks and prioritizes landscapes for different water conservation measures.

WRI CSUSB Palm Desert Campus (PDC): Salton Sea Collection

The WRI has expanded with a new office at the CSUSB PDC. The WRI at PDC is being modeled after the WRI at CSUSB, and it may eventually stand alone as an institute with its own community advisory board and donors.

The Salton Sea Collection, a repository of all historical, current, and future assets related to the Salton Sea, is located at the PDC in the Indian Wells Center for Educational Excellence, Room 304.



State of the art digital/electronic curating and cataloguing of these archives will allow for access and dissemination throughout the CSU Library System.

WRI Partnership with NSF Supercomputing Network

The WRI's aerial photography archive is beginning to expand. We currently have approximately 40,000 photographs scanned and available online. To assist with such massive data storage needs, the WRI is partnering with Extreme Science and Engineering Discovery Environment (XSEDE), which is a part of the National Center for Supercomputing Applications. XSEDE is funded by the National Science Foundation (NSF) and provides supercomputing services to universities. The WRI is the first Hispanic-Serving Institution (HSI) among the CSUs to work with XSEDE.

Welcome Our New Donors!

- Mojave Water Agency
- Agua Caliente Band of Cahuilla Indians

WRI Student Interns & Alumni Continuing on Projects



Lauren Hall recently graduated with a double major in environmental studies and geography and obtained a GIS certification. She is continuing her previous WRI internship work on the City of San Bernardino GIS Landscape Irrigation project, alongside various other GIS projects.



Cynthia Bernal is a mathematics major and a President's Scholar. She is working on the Aerial Photographs project.



Rodrigo Chipres is an environmental studies major and a double minor in geography and Spanish; he has also obtained his GIS certification. He is working on the City of San Bernardino GIS

Landscape Irrigation project and the Caltrans GIS Workforce Development project.



Chelsea Rammelsberg is a health care management major. She is a student assistant for our USDA -EPA Internship Program for CSU Student Candidates.

GIS Workforce Development: GIS Extended Learning Certificate Program and Training

With funding by the CSU Chancellor's Office and the Leonard Transportation Center (LTC), the Water Resources Institute (WRI) is instituting a geographic information systems (GIS) certificate program at CSUSB that will use a holistic, interdisciplinary approach to the elements of GIS education in GIS workforce development. This program will largely serve professionals and practitioners in transportation and logistics—particularly Caltrans—in order to provide up-to-date GIS technology skills and leadership preparation in sustainability. Classes will also be open to anyone interested in GIS skill development and will be designed for both new and experienced GIS users. A statewide offering at CSU and UC campuses is a long-term goal of the program.

In conjunction with the GIS certificate program, we have also received a Caltrans grant in the

amount of \$100,000 to create two classes for Caltrans—Cartography and Data Capture—which will be used as in-house teaching tools to expand their overall knowledge and use of GIS in their projects. Caltrans does not currently have a GIS training program that can be used across their districts and headquarters, so this program and project are a way to provide such enhanced services.

Project staff are interviewing Caltrans employees regarding the type of GIS work they are doing on their respective projects; what they do with the data they have and what products they are creating; what types of training they have had in the past; and what types of training they would like in the future. Recent CSUSB graduate Lauren Hall and our student intern Rodrigo Chipres are working on this project.

Awards and Honors

WRI's Water Legend Award Reception: Honoring Patrick Milligan

On November 7th, 2014, San Bernardino Valley Municipal Water District (SBVMWD)'s Patrick Milligan was awarded with WRI's Water Legend Award to recognize his 41 years of service to the water industry and the community.

Milligan has been an instrumental leader in protecting the San Bernardino Valley community and its resources, and he and the SBVMWD have been loyal supporters of the WRI as its largest donor for the past 12 years.

The event attracted 67 attendees, and more than \$2,000 was raised toward an endowment for a WRI internship in Patrick Milligan's name.



Patrick Milligan and Andrew Bodman, CSUSB Provost/VP Academic Affairs. Photo by Robert Whitehead.

San Bernardino County Water Conference: Inland Empire (IE) Water (H₂O) Hero Award

On August 22nd, 2014, the Eighth Annual San Bernardino County Water Conference was held by the Baldy View Chapter of the Building Industry Association (BIA) to discuss solutions to California's constrained water supplies. BIA presented the IE H₂O Hero Award to the WRI for our commitment to sustained water resources and our contribution to water efficiency.



Boykin Witherspoon III, WRI Director of Programs. Photo by Jonathan Nyquist.