

## **Bureau of Reclamation Selects Three Projects to Receive Nearly \$300,000 for Innovative Water Treatment Research Projects**

*Innovative pilot-scale water treatment technologies and processes for inland desalination will utilize the Brackish Groundwater National Desalination Research Facility in Alamogordo, New Mexico, for pilot testing*

Washington ([PRWEB](#)) November 16, 2016 -- The Bureau of Reclamation has selected three projects to receive \$299,685 under an innovative pilot-scale water treatment technologies and process for inland desalination. The selected projects will receive funding through cooperative agreements and will include a period of pilot testing at the Brackish Groundwater National Desalination Research Facility in Alamogordo, New Mexico.

"Reclamation and its partners are working to assure sustainable water supplies and provide clean and reliable water supplies for the Western United States," Commissioner Estevan López said. "Through the development of new water treatment technologies, such as the ones announced today, impaired waters will become a new and reliable source of water for communities throughout the country and specifically in the West."

This innovative program began in 2016 when Reclamations solicited and received 12 proposals. These proposals were reviewed and six projects were invited to interact with the Applications Review Committee in-person and pitch their proposal. This interactive event was hosted at the Brackish Groundwater National Desalination Research Facility on October 19-20, 2016.

The three projects selected for funding are:

Enhanced Recovery from Impaired Water Resources: Field-Scale Validation of Hybrid Ion Exchange-Membrane (HIX-M) Desalination Process from Lehigh University. They will receive \$99,726 in federal funding. This project will focus on testing at a pilot-scale a hybrid ion exchange membrane (HIX-M) system to validate a robust solution for water pretreatment prior to desalination that prevents membrane scaling and fouling due to sulfates and silica and therefore enables 1) higher fresh water production; 2) decreased energy requirements; 3) reduced concentrate disposal, and; 4) reduce/eliminate the need for antiscalant chemicals which will reduce environmental impacts.

Development of Novel Photobiological Process to Improve Water Recovery in Brackish Groundwater Desalination from Pacific Advanced Civil Engineering, Inc. They will receive \$100,000 in federal funding. This project will test a novel photobiological process utilizing selectively cultured diatoms to efficiently remove these inorganic scalants from reverse osmosis concentrate. The approach to be tested will help reduce environmental impacts of water reuse and brackish water desalination by harnessing the natural capacity of microalgae with the goal to reduce the volume of concentrate being disposed by more than 50%.

Pilot Evaluation of a Sustainable Autonomous Brackish Groundwater Desalination System from the University of North Texas. They will receive \$99,959 in federal funding. This project will evaluate a pilot scale system to treat brackish groundwater to produce potable and agricultural water using proven water treatment technologies, smart use of available water, and powered by renewable energy.

A full description of the projects is available at [www.usbr.gov/research](http://www.usbr.gov/research). The funding provided today supports the [White House's Water Innovation Strategy to address Water Resource Challenges and Opportunities for](#)

[Water Technology Innovation](#). Reclamation's Desalination and Water Purification Research Program works with researchers and partners to develop more innovative, cost-effective, and technologically efficient ways to desalinate water. Learn more at: <http://www.usbr.gov/research/st/pitchtopilot.html>.



Keisuke Ikehata of Pacific Advanced Civil Engineering, pitches to the public their project Development of Novel Photobiological Process to Improve Water Recovery in Brackish Groundwater Desalination

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