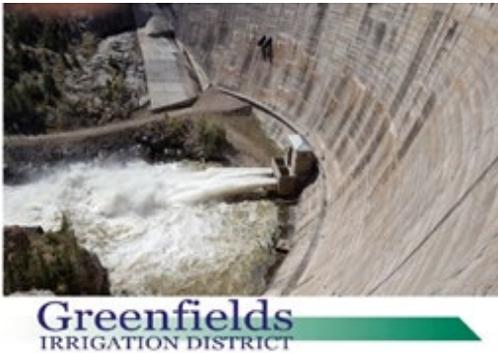




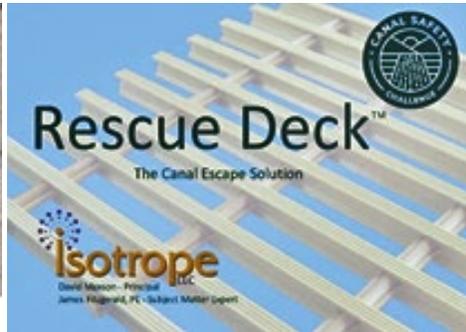
## In the Spotlight: Canal Safety Challenge

Exciting news from the Canal Safety Challenge!

Three finalists have been selected; each will receive \$50,000. Meet the Finalists:



Greenfields Irrigation District proposed a submerged, inclined, stepped ramp utilizing the force of the water to help the individual get to safety. (Fairfield, Montana)



Isotrope, LLC proposed a partially submerged deck that will allow people to walk, crawl or be rescued from the current. (Medfield, Massachusetts)



WGM Group, Inc. proposed a "Hydro Scoop" designed to slow down water at the culvert entrance so the person/animal can rescue themselves or be more easily rescued. (Missoula, Montana)

In addition to the three finalists, Reclamation recognizes two submissions with an honorable mention for their novel solutions, Northern Water in Berthoud, Colorado, and Peltonen & Sardi of Bellevue, Washington.



Physical models at the Hydraulics Laboratory in Denver, Colorado

Finalists are preparing their prototypes for demonstration and testing in Phase II of the competition. The prototypes will be installed in a trapezoidal laboratory flume that represents a concrete-lined canal.

The goal of the demonstration is to show that the prototypes can reliably assist in non-volitional rescue of a human dummy without creating a dangerous condition for the victim, concerns for canal operation, or a notable debris management issue.

The demonstration event, planned for November 2021, will take place at Reclamation's Hydraulics Laboratory in Denver, Colorado. The winner of the event will receive a \$100,000 prize.

# Competition Updates:



## **Automated Maintenance of Protection Systems**

**(AMPS):** Automating protection systems testing and eliminating the outages to accomplish testing can improve hydropower plant reliability. A webinar for university students to learn more about the competition is planned for July 14<sup>th</sup>. Phase 1 white paper submissions are due September 3, 2021.



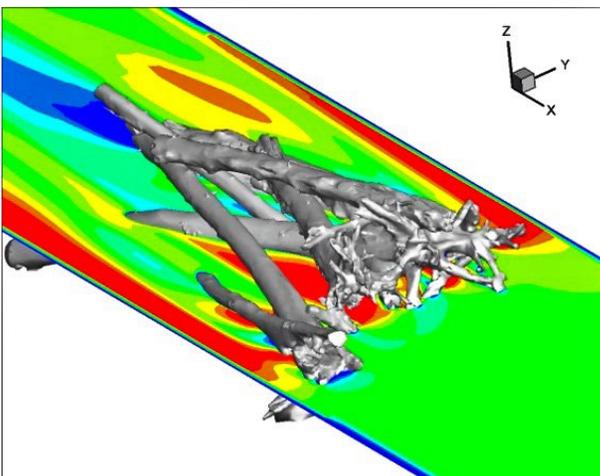
**Water America's Crops Challenge:** The Water America's Crops development period is continuing! Solvers have posed several thoughtful questions and we are looking forward to seeing their solutions! Updates include the development of more detailed cost metrics, and refinement of the licensing terms. The Phase I submission deadline is now July 15, 2021.



**More Water, Less Concentrate:** Phase 1 submissions are currently being evaluated to identify the most promising solutions that reduce the volume of concentrate requiring disposal from inland desalination plants. Five finalists will receive prizes and be invited to demonstrate their functioning prototype at the Water Quality Improvement Center at Reclamation's Yuma Desalting Plant in June 2022.



**Imperfection Detection: Detect Me If You Can:** The submission deadline for Phase 1 is now July 20, 2021. The deadline extension includes revised intellectual property terms and provides participants time to review the changes and adjust their approach if needed.



## On the Horizon

### **Improving the Speed of the Sedimentation and River Hydraulics (SRH) Model**

Over the years, Reclamation has developed a suite of hydraulic and hydrological models to predict riverine, reservoir and watershed flows to meet a wide range of challenging project needs. Multi-dimensional models such as [SRH-2D](#) have been developed and widely used. While these models are robust and reliable, their use has been restricted to projects with relatively small time and spatial scales due to slow model execution speeds.

Reclamation is planning to launch a competition in 2021 to develop a new, stable, fast, and parallelizable algebraic linear

equation solver for Reclamation's SRH-2D model that increase the model execution speed along with the scalable parallel demonstration of SRH-2D.

---

Click [here](#) to learn more about all of Reclamation's Prize Competitions

Interest in partnerships, potential topics, or questions can be emailed to [prize@usbr.gov](mailto:prize@usbr.gov).

---

## About Reclamation

Established in 1902, Reclamation is best known for the dams, powerplants, and canals it constructed in the 17 western states. The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

Reclamation is leveraging prize competitions to help solve some of the most critical water resource problems in the areas of Water, Infrastructure, and Environment.