

# SPLASH ALERT

## U.S. Bureau of Reclamation Water America's Crops Challenge

### Submission Deadline: June 24, 2021

Initiated in February of this year, the U.S. Bureau of Reclamation, along with other partners, are looking for solutions to reduce water loss in the canals used to deliver water from the source to customers.

Water loss conveyed by a canal is inevitable. Some water loss is due to evaporation into the air or transpiration (absorption) of water into nearby plant life. Reclamation has found the most significant type of water loss in canals is **seepage** of water through the base or walls of a canal into the subsurface or subgrade. Seepage may diffuse (through permeable soils), concentrated (through bedrock fractures), or some combination thereof. Rates of seepage can be affected by many factors, including:

- Whether a canal is lined
- The material used for lining (e.g., concrete or plastic)
- The composition of the subsurface or subgrade (e.g., fine-grained soil, coarse soil, or various types of bedrock).
- The level of the groundwater table
- Climatic conditions including temperature, humidity, and precipitation

Seepage also reduces the efficiency of water deliveries and increasing costs for Reclamation and its customers. Moreover, if not adequately addressed, seepage can result in canal failure over the long term.

The \$360,000 [Water America's Crops Challenge](#) seeks to incentivize new approaches to minimize seepage in canals that are cost-effective for the farmers and communities that Reclamation serves. Successful solutions will include:

- Effectiveness at reducing seepage
- Durability over time and in various environmental conditions
- Minimal maintenance requirements
- Ease of installation in a variety of environmental conditions and locations
- Cost-effectiveness (including both cost of materials and costs related to the other four performance criteria)

Reclamation has evaluated existing approaches and finds that some methods perform very well on certain criteria, but not on all. See Table 1 on the above link for their findings.

There will be five finalists for Phase I of the contest, each being awarded \$50,000 to support solution development. These finalists will then move into Phase II where they will develop a prototype. The winner of Phase II will be awarded \$90,000. One runner-up will be awarded \$20,000.

Guidelines including submissions by an innovator or team can be found on the [Challenge Guidelines webpage](#).

