GROW SMART ACT RATIONALE

January 2026

The GROW SMART Act authorizes the Bureau of Reclamation to fund the development of voluntary demonstration projects for innovative agricultural water efficiency measures and agricultural partnerships with municipal/industrial and commercial entities. The goal would be to induce farmers voluntarily to invest in these projects by showing them that they can make as much money and receive other benefits like additional water for their other lands and insurance against commercial downturns and other risks. The demonstration projects would show:

1) which innovative water saving projects work in specific areas and at what cost and yield; and
2) the specific benefits from partnerships with urban entities that farmers could receive.

What the bill would do:

- Authorize $5 million per year for 5 years for the Bureau of Reclamation to fund the design of innovative and voluntary agricultural water efficiency projects that keep farmland in production such as crop-switching to low water-use crops, innovative irrigation strategies, and hydroponics and other practices that significantly reduce water use.

- Projects would be prioritized if they include agricultural partnerships with municipal/industrial/commercial entities, which would pay for the non-federal portion of the projects' costs and could include other measures like insurance against agricultural downturns or other funding for farmers in return for acquiring a large part of the saved water. The bill was developed with Culp and Kelly, a law firm which has developed this type of municipal/agricultural agreement with numerous clients in Arizona.

- This bill would be the first part of a two-bill package. In the second bill, USDA (which has a larger budget and more familiarity with ag practices) would be authorized to fund the implementation of the demonstration projects whose design was funded by Reclamation.

Background:

- **The bill seeks to overcome barriers to introducing market incentives into Western water in a way that is respectful of and profitable for holders of senior water rights.**

- **Agricultural water use efficiency measures are dramatically less expensive (by as much as 90% or an order of magnitude) than the construction of new water supplies**.
    - For example, new storage, water recycling, or desalination projects cost thousands of dollars per acre-foot, and as much as $5,000 to $8,000 per acre-foot in some cases. By comparison, agricultural water use efficiency projects typically cost in the hundreds of dollars per acre-foot of water savings.
    - For example, one potential project could replace some of the alfalfa an Arizona integrated dairy relies on for forage with hydroponically-grown sprouted grain as a high-nutrient forage. The grain could be grown on-site to keep the land in production. If the capital cost of the hydroponic facilities is amortized over their 20-year expected life, the cost per acre-foot of water savings is $200-$500. Other examples include low water use crops:

paulownia and other alfalfa substitutes; a mesquite-like crop that could provide a domestic, low-cost alternative for paper products; guayule, a rubber substitute; and so on.

  - A recent study published in the Journal of American Water Resources Association, Public Spending and Water Scarcity: An Empirical Analysis of USBR Investments in the Colorado River Basin, found huge variability in the cost of water savings, with a range of $385 to $2,444 per acre-foot (AF) across 462 projects analyzed. The study found that agricultural-sector water conservation approaches are among the most cost-effective, with average costs ranging from $385 to $417 per AF saved.

- If market prices governed water investments, cities and industries would be investing in these low-cost agricultural water-efficiency projects and taking a large part of the saved water savings while providing another portion of the saved water plus insurance against commercial downturns to the farmers.
  - The projects are so much cheaper than alternative means of addressing our water deficit that both the cities and farmers can benefit financially by investing in them.
  - **And because cities and industries can pay for the investments in these projects once they have been demonstrated to be effective, these projects are much less costly for the federal budget than buying out water rights or relying completely on paying for expensive water infrastructure** (granting that water infrastructure is another part of the solution for drought).
- However, barriers like distrust and lack of information prevent market pricing from influencing water investments. Farmers are often wary about outreach from cities and industrial and commercial entities, especially given the legacy of "buy-and-dry" efforts where wealthier urban areas have bought virtually all the water rights in rural areas and completely dried up the communities.
- In addition, most established agricultural efficiency measures like standard drip irrigation or summer fallowing reduce water use by 15% or so while farmers keep planting their existing crops. These measures are helpful but they will not be nearly enough to address the looming water supply deficits, especially on the Colorado River.
- **The bill would seek to demonstrate that there are other agricultural water efficiency measures including switching to low water use crops that could reduce water use by 30-80% and continue to support farmers and rural communities by keeping land in production, measures that could be particularly helpful in the Colorado River Basin**:
  - A few farmers in each area could test out which measures work and at what yield and cost; the bill would only fund practices/crops without a demonstrated local track record.
  - **The bill would preclude "buy-and-dry" by requiring that demonstration projects keep agricultural land in production for the majority of the growing season (or the majority of years of the agreement for drought-year agreements).**
  - **The bill would also prioritize projects that would dedicate a portion of the water savings back to the relevant irrigation district** or broader agricultural community.
  - Once they have learned about the costs and benefits of these voluntary partnerships on small demonstration plots, farmers can decide whether they want to pursue them further.