Advancing Strategic Land Repurposing and Groundwater Sustainability in California

A guide for developing regional strategies to create multiple benefits

Over the next two decades, major agricultural regions of California will transition to sustainable use of groundwater, as mandated by the 2014 Sustainable Groundwater Management Act (SGMA). Balancing groundwater demand and supply will require shifting to less water-intensive agriculture and in some cases taking land out of production. It is estimated that at least 500,000 to over 1 million acres, primarily in the San Joaquin Valley, may need to be taken out of production over the next several decades to meet the sustainability mandate of SGMA and address greater water scarcity exacerbated by climate change.

By strategically repurposing previously irrigated land to create new uses and values, the San Joaquin Valley can transform into a region with a thriving and diversified agricultural economy, sustainable groundwater supplies, vibrant wildlife habitat, outdoor recreation and jobs, and healthy air and soil.

Practical, multibenefit approaches for regional land repurposing

To help groundwater sustainability agencies (GSAs), local governments and land use planners (collectively referred to as "program developers") as well as landowners facing these land use changes, EDF worked with a broad group of stakeholders to develop a white paper titled *Advancing Strategic Land Repurposing and Groundwater Sustainability in California*. The white paper outlines practical and creative approaches to support the development of regionally coordinated and inclusive land repurposing strategies, including incentive-based voluntary programs that prioritize the health and resilience of communities and landscapes in the San Joaquin Valley.

This paper synthesizes key insights, themes and recommendations shared in a four-part workshop series by growers and farming interests, GSA leads, environmental justice groups, environmental interests, land trust representatives, and other key stakeholders representing land use planning.

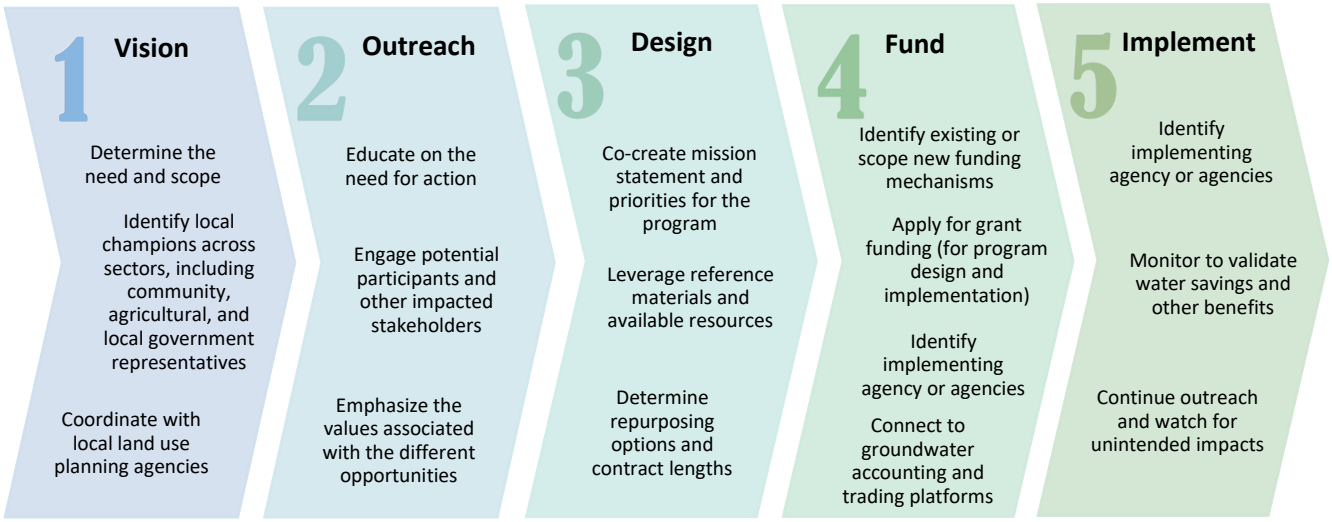
Highlights from the white paper

Policy and other program design considerations
While any region facing land use change will have unique circumstances, this portion of the white paper raises universally important questions that program developers should consider from the outset: the "Why, What, How, Where, Who and When" questions of land repurposing for sustainable groundwater management. This includes identifying regional goals, land use alternatives, potential funding sources and guiding principles of community engagement.

Steps for developing a land repurposing program
For program developers ready to pursue a local land repurposing strategy, this section provides a summary of process steps and resources to explore, design and implement a new program. The below infographic outlines the five key phases of program development.

What is land repurposing?

This white paper defines "land repurposing" as any activity that is undertaken by a public or private entity that converts previously irrigated agricultural land to new uses that both 1) reduce groundwater demand or use and 2) provide some other measurable benefit to the environment or broader San Joaquin Valley community. Potential benefits include improving air quality, creating habitat corridors and recreational spaces, and creating new sources of revenue and jobs.



Tools and resources to help lay the groundwork for success

Many nonprofit organizations, consulting firms and academic groups have already developed excellent resources and technical tools to support sustainable management of groundwater and land use planning. This easy-to-navigate guide offers concise descriptions and direct links to technical tools, reports and guidance, and resources for effective stakeholder outreach and education.

One-page case studies

While most GSAs are still in the early stages of SGMA implementation, it is timely to begin thinking proactively about addressing anticipated land use changes. Fortunately, there are a handful of past and current examples of regionally coordinated land retirement and repurposing programs that can provide insights on how to lay the groundwork for a successful multibenefit land repurposing program. The case studies featured in the white paper provide overviews of some of these examples to highlight critical components and innovative approaches emerging in the SGMA context. The cases include:

- Kaweah Subbasin Regional Conservation Investment Strategy
- Tule Basin Land and Water Conservation Trust
- Madera County GSA's Strategic Agricultural Land Conservation
- Westlands Water District Land Retirement Program

Financial analysis of funding options

Lastly, this analysis provides a realistic menu of existing and potential funding sources for land repurposing, and how each could work to support landowners impacted by SGMA. Potential revenue sources identified include mitigation or conservation banks, conservation easements, solar leases, grazing leases, conversion to low water intensity crops, and federal and state conservation programs.

To view the full *Advancing Strategic Land Repurposing and Groundwater Sustainability in California* guide, download it **here**.

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