SAN JOAQUIN VALLEY WATER COLLABORATIVE ACTION PROGRAM (CAP)

GROUNDWATER RECHARGE PRINCIPLES

APRIL 2024

The San Joaquin Valley Water Collaborative Action Program (CAP) is committed to finding solutions to create a more equitable, economically resilient, and sustainable future for the Valley. Due to declining groundwater conditions and the implementation of the Sustainable Groundwater Management Act (SGMA), groundwater recharge has become an increasingly high priority throughout the San Joaquin Valley. The heavy precipitation events of 2023 demonstrated that in some years, significant volumes of water will be available for recharge, and operational, institutional, and regulatory changes are needed to support maximizing the capture of high flows for recharge to support Valley communities, ecosystems, and agriculture. CAP has reflected on the various experiences of members and agencies and developed the following principles for effective groundwater recharge implementation.

1. Groundwater recharge projects should be formulated, sited, and implemented to provide a variety of benefits. In addition to water supply reliability for all users, including drinking water and agriculture, this can include one or more benefits: ecosystem enhancement, flood risk reduction, floodplain restoration, subsidence mitigation, climate change adaptation, aquifer replenishment, and others, where possible. To support this, CAP members:
    a. Encourage local collaboration across sectors and at scales necessary to achieve maximum benefits.
    b. Encourage identification, prioritization, and protection of recharge sites that can maximize benefits.
2. During wet periods, groundwater recharge projects should help reduce flood risk to the maximum extent possible. To support this, CAP members:
    a. Acknowledge local flood control agencies are best suited to determine when flood diversions are necessary to reduce flood risk and encourage them to be transparent and inclusive in their planning and decisions.
    b. Support the deference of local agencies by providing flexibility in state requirements for flood diversions to recharge while ensuring groundwater quality protection.
    c. Encourage pre-season collaboration between groundwater and floodwater managers to identify willing landowners, points of diversions, and diversion capacities to support readiness to maximize use of the floodwaters for recharge.
3. Groundwater recharge projects should protect and maximize the use of existing surface water rights for diversion to underground storage. To support this, CAP members:
    a. Acknowledge that the surface water rights of all users must be protected.
    b. Encourage local collaborations to determine and administer the allocation of available water for recharge, where all water rights within a system are upheld.

4. Implementation of groundwater recharge projects should be expedited to support CAP priorities and achievement of SGMA goals. To support this, CAP members:
    a. Encourage local agencies/landowners to work with GSAs to identify recharge areas for long-term, flexible recharge programs.
    b. Encourage Districts and Agencies to provide adequate incentives, including consideration of the cost of water for growers and landowners to invest in groundwater recharge and the necessary infrastructure.
    c. Commit to exploring the ability to expedite review and approval for recharge projects through administrative actions and future legislation that facilitate recharge while protecting groundwater quality.
    d. Encourage a diversity of recharge project types and the use of varying land uses to create robust recharge programs.
5. Groundwater projects should be formulated, sited, and implemented to ensure that projects provide equitable benefits and do not cause harm to community wells. To support this, CAP members:
    a. Support the development of projects and planning documents that consider anticipated flood flows, evaluate the potential to utilize these flood flows for recharge, and address the positive opportunities and potential negative impacts, including any necessary mitigation strategies.
    b. Encourage the adequate collection and dissemination of high-quality data to inform good decision-making when developing recharge programs sensitive to surrounding land uses.
    c. Encourage siting of monitoring wells between recharge sites and community wells at representative depths to detect local groundwater quality changes early and improve water quality risk assessment of recharge projects generally.
    d. Encourage early consultation with community groups and NGOs.
    e. Encourage siting recharge projects to avoid negative impacts and maximize positive benefits.