A District Perspective

Glenn-Colusa Irrigation District
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“Agricultural land protection may be the single most significant issue that has for all intents and purposes been left out of the CVPIA implementation process. This is unfortunate, because there are unhappy similarities between the farmland protection issue today and the salmon conservation issue fifty years ago.”

Marc Reisner, “Farmland Protection, A New Approach to Saving California's Best Agricultural Lands” (September 1997).
Finding the Balance

- GCID Summary
- Internal Drivers
- External Drivers
- Why a Plan
- Questions
About GCID

• Our Mission: provide reliable, affordable water supplies to our landowners and water users while ensuring environmental and economic viability of our region

• GCID was established in 1920, however, was preceded by private companies and smaller districts

• Water rights on Sacramento River by Will S Green in 1883. His first claim was for 500,000 miners inches under 4 inches of pressure.
About GCID

• Today, GCID, the largest district in the Sacramento Valley covers 175,000 acres
  • 140,000 planted acres
  • 21,000 acres within 3 federal refuges
  • 1,200 acres of private habitat land
• Governed by a 5-member board
• Annual operating budget - $17 Million
• 1,000 miles of canals/drains
• Water allocated on a per acre basis
• District diversity, soil types, crops, community
Internal Issues

• Aging infrastructure
• Increasing cost of Project Water
• Changing on-farm demands and service needs
• Shift of crops
• Changing technology
• Generational/Corporate Shift
• Continuity
External Drivers

- Flows for the Environmental
  - Bay-Delta Plan Update
  - Reservoir Operations
  - Federal Biological Opinion
- Sustainable Groundwater Management Act
- New Infrastructure
  - Storage – Sites Reservoir
  - Delta Tunnels
- Plans, Plans, Plans
Surface/Groundwater Use Questions

- How much water do I use?
- Where does it come from?
- Where could it go if I weren’t using it?
- What is sustainable?
SGMA
Governance

- Colusa Sub-Basin
- Two GSAs
Change in Groundwater Elevation
Average Annual Accretions to Sacramento Valley Streams by Decade
Surface-Groundwater-Ecosystem

- Districts recharge the groundwater basin with surface water through leakage from canals and distribution and drainage systems and deep percolation of applied crop water.
- Districts may need to call on this recharged groundwater as surface supplies become more limited.
- Additional flows will be needed to meet increasing environmental requirements in streams, rivers, the Bay-Delta, or for other purposes. All users have an obligation.
- Surface water Districts may be willing to meet the basin shared obligation but additional groundwater pumping may be needed.
- Basin Management will be required.
- PLAN
Water Resource Plan

- Protect GCID’s water rights and supplies
- Keep GCID financially sound and develop affordable ways to finance improvements
- Address federal, state, and local water challenges
- Manage groundwater resources for the benefit of agricultural and environmental interests (Sustainable Groundwater Management Act)
- Protect and enhance the region’s agricultural economic base
- Support and provide environmental benefits (salmon restoration, waterfowl and giant garter snake habitat)
- Improve/modernize system to meet changing long-term customer needs
Determine Focus/Content of WRP

- Key recommendations based on Phase 1 review
  - Improve communication
    - support ongoing and proposed outreach efforts
    - improve community understanding/promote accomplishments
  ✓ Refine water balance to support use as a communication tool
  ✓ Support ongoing SGMA discussion and technical support
  - Refine capital improvements plan and develop sustainable program
  - Develop financial tool to support financially sustainable approach

- Complete Summary Report and Phase 2 Work Plan
Painter’s Riffle – Completed in 2014
Water Balance

The diagram illustrates the water balance system, showing the flow of water through various components such as precipitation, distribution system, crop consumptive use water needs, conveyance system filling, irrigation deliveries, apr-oct field outflow, tailwater recirculation, rice flooding, rice decomposition, seepage, available soil moisture, percolation from agricultural land, and cultural practices. The diagram also highlights the role of district boundary, water supply, and water delivery to other districts or users.
Sacramento River Regional Plan Diversions and Use
Closing Thoughts

- Plans are important
- Coordinating of Plans is even more important
- Data informing Plans is most important
- Water Budgets will drive Plans for:
  - Surface Water uses
  - Groundwater uses
  - Ecosystem uses
- Our systems are interconnected and cannot focus on one part at the expense of the others
- Our systems are highly managed and will continue to be. If you’re not managing, someone else is