

New Technology Implementation at California Irrigation Districts

Goal: Accelerate the rate of acceptance and adoption of new water conservation technologies that have been successfully implemented by selected irrigation districts but have not been publicized.

Technology Path: Some technologies are already commercially available for improving water delivery flexibility and reliability. Irrigation districts have not widely implemented many of them because (i) they do not know about or understand the technologies, (ii) they cannot afford to implement them, or (iii) the technologies are so new that they simply have not had enough time to be implemented. For these technologies, the appropriate research involves documenting and publicizing the benefits and disadvantages of their application. Research and dissemination of information about these new existing technologies would improve their rate of successful adoption.

Energy Efficiency Benefits:

- Reduction in on-farm groundwater pumping (because surface water deliveries will be more flexible, and pumping water levels will remain at higher levels),
- Increased crop yield per unit of energy consumed,
- More efficient fertilizer practices,
- Reduced vehicular travel (due to automatic systems and remote monitoring),
- Reduced deterioration of groundwater quality and quantity, and
- Reduced pumping by the irrigation districts themselves.

Precise energy benefits cannot be defined at this stage because (i) this research will address the infrastructure of water delivery and usage rather than one specific energy-consuming device, and (ii) the technologies which will be unveiled are not yet identified.

Principal Investigator:

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