Bureau of Reclamation Central Valley Project Water Transfers

Innovative Water Transfers Workshop

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Las Vegas, Nevada

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Mid-Pacific Region
Need for Water Transfers

- Limited Water Supply
- Growing Population
- Reallocation of Water for the Environment
- Geographic Mismatch of Supply and Demand
Benefits of Water Transfers

• Allows movement of water to meet the greatest need
• Voluntary process
• Those transferring water provided with financial incentives
• Can “stretch” water resources in times of shortage and reduce need for new facilities
California Population Density

Source: U.S. Census Bureau
Census 2000 Summary File 1 population by census tract.
California Rainfall Map

Precipitation

Precipitation varies widely across the United States, from a low of 2.3 inches per year in California’s Death Valley to a high of 450 inches on Hawaii’s Mount Waialeale. Nevada ranks as the driest state, with an average annual precipitation of 9.5 inches, and Hawaii is the wettest, at 70.3 inches. The average annual precipitation for California is 25.44 inches.

Average Annual Precipitation (in inches) 1981-1990

- 500-1,200
- 300-500
- 200-300
- 100-200
- 50-100
- 25-50
- 10-25
- 2.5-10
- 0-2.5

PACIFIC OCEAN

U.S. Department of the Interior
U.S. Geological Survey

The National Atlas of the United States of America
Geographic Constraints

- Majority of water supply in the north.
- Majority of demand in the south.
California Water Projects

- Central Valley Project
- State Water Project
- Local Water Projects
Central Valley Project Improvement Act (CVPIA) of 1992

- CVPIA broadened authority for the transfer of CVP water
  - Authorizes all individuals or districts who receive CVP water to transfer all or a portion of their contract water to any other California water users for any purpose recognized as beneficial under applicable State law
  - Allows CVP water to be transferred from Ag to M&I without requiring contract amendment
  - Encourages open market – willing buyer/willing seller
  - Allows CVP water to be sold at a profit
Central Valley Project Improvement Act (CVPIA) of 1992 (continued)

• All transfers of CVP water are subject to approval by the Secretary of the Interior pursuant to transfer provisions of CVPIA
  – Secretary has delegated his review and approval authority to the Bureau of Reclamation
California Water Code § 1725

• “A permittee or licensee may temporarily change the point of diversion, place of use, or purpose of use due to a transfer or exchange of water or water rights if the transfer would only involve the amount of water that would have been consumptively used or stored by the permittee or licensee in the absence of the proposed temporary change, would not injure any legal user of the water, and would not unreasonably affect fish, wildlife, or other instream beneficial uses. For purposes of this article, “consumptively used” means the amount of water which has been consumed through use by evapotranspiration, has percolated underground, or has been otherwise removed from use in the downstream water supply as a result of direct diversion.”
CVPIA Section 3405 (a) (1)

§3405 (a) (1) (A) limits the amount of water that can be transferred to the average annual quantity of water under contract actually delivered to the contracting agency or district during the last three years of normal water delivery prior to the date of enactment of this title.

§3405 (a) (1) (I): The water subject to any transfer undertaken pursuant to this subsection shall be limited to water that would have been consumptively used or irretrievably lost to beneficial use during the year or years of the transfer.

§3405 (a) (1) (M): Transfers between Central Valley Project contractors within counties, watersheds, or other areas of origin, as those terms are utilized under California law, shall be deemed to meet the conditions set for in subparagraphs (A) and (I) of this paragraph.
Determination of Transferrable Water

- Water can be made available for transfers to others by:
  - Crop idling or crop substitution
  - Reduced Losses to saline sink
  - Groundwater substitution
  - Reservoir reoperation; or
Considerations

- Willing Sellers / Willing Buyers
- Protection due to:
  - Environmental Impacts
  - Third Party Impacts
- Single year or multiple year transfers
- Groundwater or surface water
- Water rights and contractual commitments
Further Considerations

How much risk is Reclamation willing to assume, and under what conditions

• Should Reclamation assume policy role regarding
  – Position on growth inducement
  – Limiting control of federal water resources by one or more entities
  – Profiting from Transfers
  – Economic consequences to community
Limitations

- Conveyance
- Water Quality
- Endangered Species
- Seasonal
Reclamation’s Role

- Prevent injury to other legal water users
- Actions consistent with applicable law
- Avoid injury to CVP and CVP Contractors
- Protect Federal Investment-Repayment
- Avoid unreasonable effects on fish and wildlife
- Assure Real Water is Transferred
Reclamation’s Role

• Contract requirement to approve transfer of CVP water
  – Short Term Transfers- Area Office
  – Long Term Transfers- Regional Office
• Each transfer must be consistent with National Environmental Protection Act
• Conveyance of Transferred Water
• CVP water
• Non-CVP water
BENEFITS FROM CVPIA TRANSFERS

• Accelerated Water Transfer Program
• Facilitation of Transfers where there is no plumbing
• Use of exchanges to facilitate transfers
Program Accomplishments

1996-2010 North of Delta Totals
Approved: 1,384,966*
Delivered: 975,296

1996-2010 South of Delta
Approved: 6,772,449
Delivered: 368,698

Totals
Approved: 8,157,415
Delivered: 7,051,986

*all figures in acre-feet