

Three Examples of Alternative Development and Screening Process for Reclamation Basin Studies

Lower Santa Cruz Basin Study Project Team Meeting, July 23rd, 2019

I. Hood River Basin Study (Oregon)

- A. *Which sectors involved in the development and screening of alternatives?*
County government, Fruit Growers Association, Soil and Water Conservation District Water Districts, Environmental Groups, local resource specialists, Irrigation Districts, State Dept. of Water Resources, Tribes, interested citizens.
- B. *Objective Statement*
Ensure reliable water deliveries and sufficient in-stream flows for threatened and endangered fish in the future.
- C. *Process Description*
 - 1. Identified potential alternatives (38)
 - 2. Prioritized alternatives that addressed summer water supply (6)
 - 3. Performed appraisal level analysis and presented results in table
- D. *Types of Alternatives:*
Surface storage, managed groundwater recharge, water marketing, conservation
- E. *Evaluation Criteria*
 - 1. Benefit (in general and to water budget)
 - 2. Environmental impact (generally to streamflow)
 - 3. County and Stakeholder Response
 - 4. Total Cost

II. Henry's Fork Basin Study (Idaho)

- A. *Which sectors involved in the development and screening of alternatives?*
State and Federal agencies, irrigation districts, conservation orgs, universities, farming community
- B. *Objective Statement*
Improve water supply reliability for instream flows, irrigation, municipal/industrial uses, power generation, groundwater recharge and fish habitat
- C. *Process Description*
 - 1. Identified full range of potential alternatives (51)
 - 2. Conducted reconnaissance level analysis for fatal flaws, screened to shorter list (18)
 - 3. Conducted appraisal level analysis, consulted with small groups of stakeholders, selected 10 to bring forward
- D. *Types of Alternatives*
Surface storage, managed groundwater recharge, conservation
- E. *Evaluation Criteria*
 - a) Water Supply
 - b) Average Annual Water Volume Provided
 - c) Restrictions on Hydropower Development
 - d) Flood Control Potential
 - 2. Natural Environment
 - a) Wildlife habitat effects (e.g. large game range and migration corridors)
 - b) Effects to Federally listed species
 - c) Effects to wetland habitat values
 - d) Effects to state aquatic species of special concern
 - e) Effects on lands with special designations (BLM, Forest Service, State recreational areas, State designated wilderness)
 - 3. Socioeconomic Environment
 - a) Land ownership / Conservation Easement issues
 - b) Recreation/Economic Values, including cultural and historic resources
 - c) Proximity to infrastructure

III. Rio Grande (Texas) Basin Study

- A. *Which sectors involved in the development and screening of alternatives?*
The Rio Grande Regional Water Authority, Texas water and environmental agencies, International Water and Boundary Commissions
- B. *Objective Statement*
Alleviate projected water supply imbalances by developing one or more alternatives that will:
 - 1. Provide a minimum of 86,438 acre-feet of water by 2060
 - 2. Protect existing water rights
 - 3. Be compatible with regulations, policies and environmental law
 - 4. Be implementable within the reasonable control of study sponsors
- C. *Process Description*
Evaluated projects described in the regional water plan
- D. *Types of Alternatives*
Conservation, Brackish Groundwater Desalination, Seawater Desalination, Groundwater Development
- E. *Evaluation Criteria (see summary sheet for more detail)*
 - 1. Effectiveness
 - 2. Acceptability
 - 3. Completeness