

Judy Reservoir Case Study

- Costs, permitting, construction, and environmental issues for the raising of the existing dam
- Project was funded by a combination of methods including; rate payers, bonds, and hook-up fees
- \$9 million in capital costs to increase storage by 500 million gallons
- Permitting took 12 months

Normative River

- Understanding and considering the normal, biological functions of a river. Concept does not mean a return to pristine conditions.
- Time of flow storage is important from a biological standpoint.
- Some flooding can have a positive biological impact.

WDFW Mitigation Policy

- Storage concerns include: passage, temperature, habitat destroyed, dissolved gases.
- Preference for difference types of storage (e.g. on-channel v.s. off-channel).
- Goal of mitigation is to retain the functions and values of habitat.
- Preference for different types of mitigation (e.g. on-site, in-kind).
- Benefit of getting all parties at the table early in the process.

Growth Management and Watershed Planning

- State's population to double next 50 years
- Water availability:
 - Last half 1800's - not enough water to settle the area
 - Columbia Basin - appeared to provide "plenty" of water through the mid 1950's
 - Mid 50's and on - not enough water to meet all needs

Watershed planning as one of several inputs to GMA.
Need for the two processes to coordinate well.

Water Rights for Storage Projects

- Three permits required under Washington water code:
 - Water right permit to divert or withdraw water to an off-stream reservoir
 - Reservoir permit to impound and store water
 - Secondary permit(s) for use of reservoir water outside of the reservoir
- In evaluating water impoundments, there is consideration of benefits and costs, including environmental effects, increased water supply, any recharge of ground water and offset of any impact of the proposed diversion.
- Multi-purpose impoundment structures shall be a high priority for programs of water allocation, planning, management, and efficiency. They are preferred over single-purpose structures.

Potential Funding Sources

Historical funding on agricultural water projects

- Federal funds - 58 hydropower plants and 348 reservoirs in 17 states

Columbia Basin and upper Yakima projects
Yakima enhancement

- State funds - Ref 38 \$75 million for municipal water supply
 \$50 million for agricultural supply
- Self funding - Irrigation districts have bond sale authority
- Private sector financing - not much storage funded this way

Infrastructure Study

- Evaluated the need for local government infrastructure (e.g. roads, bridges, water supply and wastewater treatment).
- Funding gap for this type of infrastructure was estimated at \$3 billion.
- Storage was not included in this study.