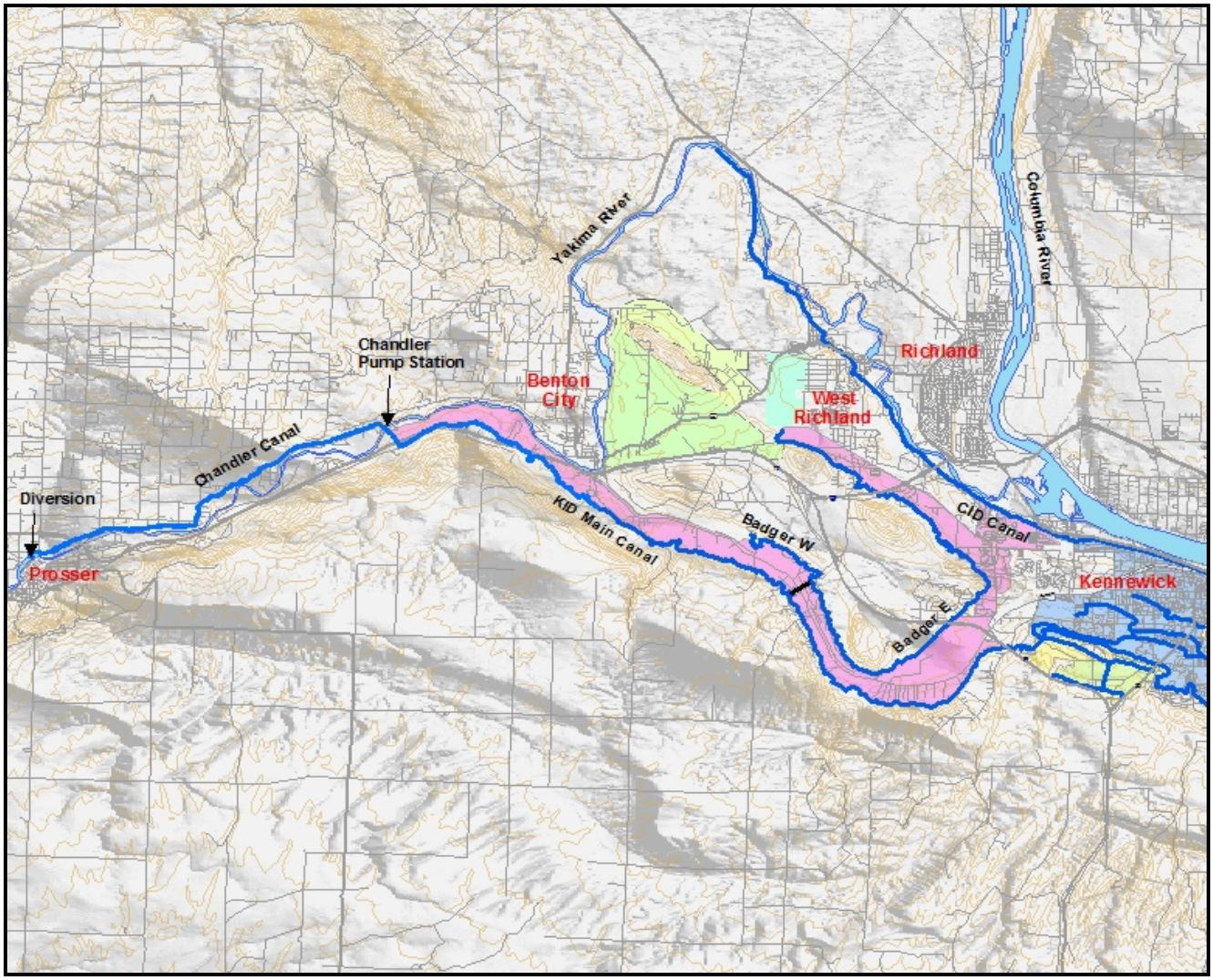
Review of the Kennewick Irrigation District
New Columbia River Water Right Permit Proposal
For KID Irrigation System Integration



Existing KID Water Delivery System

Review Prepared By
The Pacific Northwest Project
With IRZ Consulting
Kennewick, Washington

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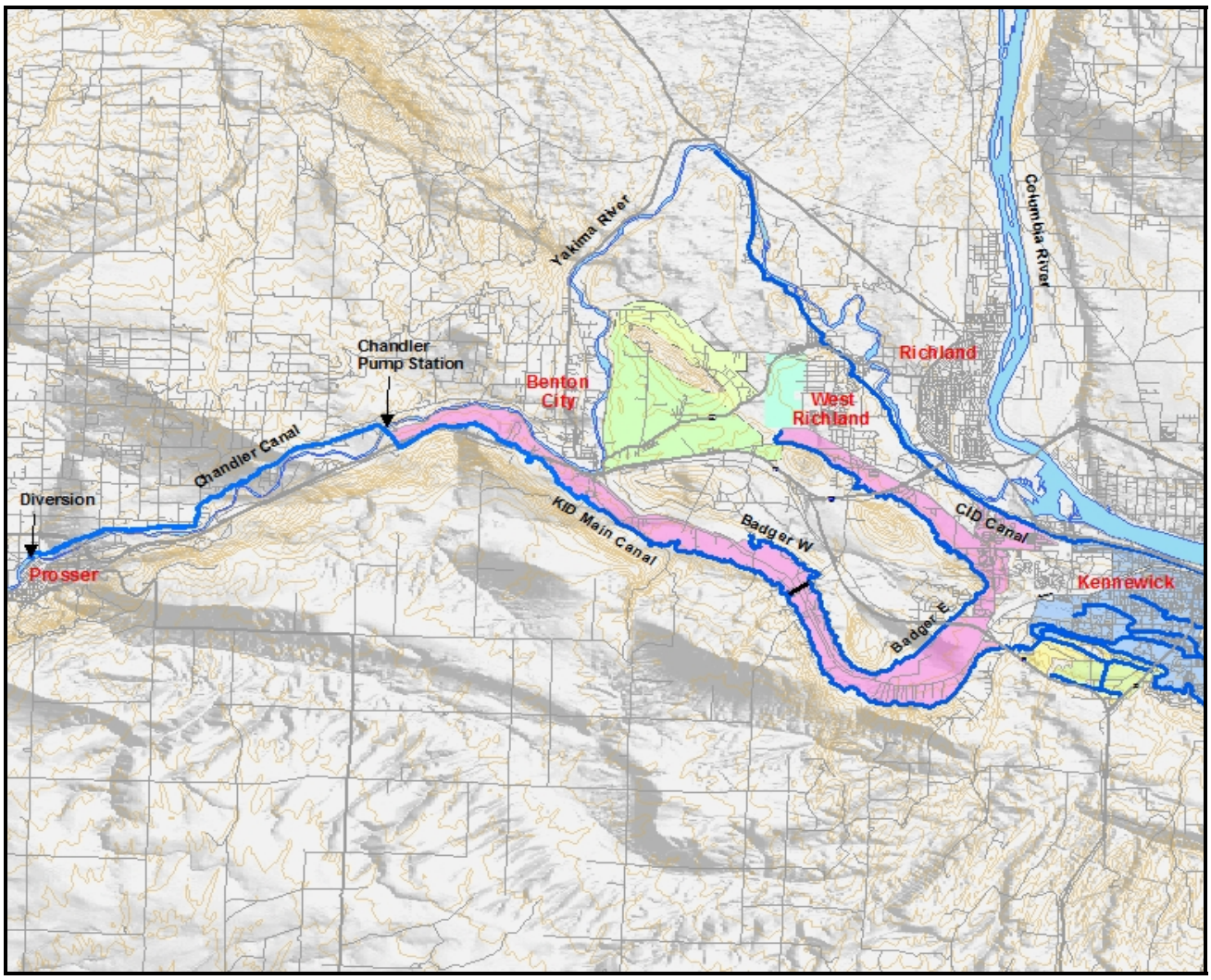
Existing KID Irrigation Delivery System
Main Canal Based-Delivery System
Yakima River Water Right (USBR)



Surface Water Diversion at Prosser:

- -- 102,674 acre-ft. Max. diversion, end-use, op. spill, and return flows.
- -- 782 cfs Max. diversion at Prosser Dam.
- -- 345 cfs Max. diversion to Main Canal.
- -- 20,201 assessed irrigated acres.
- -- About 70,700 acre-ft., end-use, demand @3.5 acre-ft./acre.
- -- System is not operating at "full" capacity (total real "wet" acres vs. assessed, timing of use changes).
- -- Hydraulic Pumps at Chandler Station.

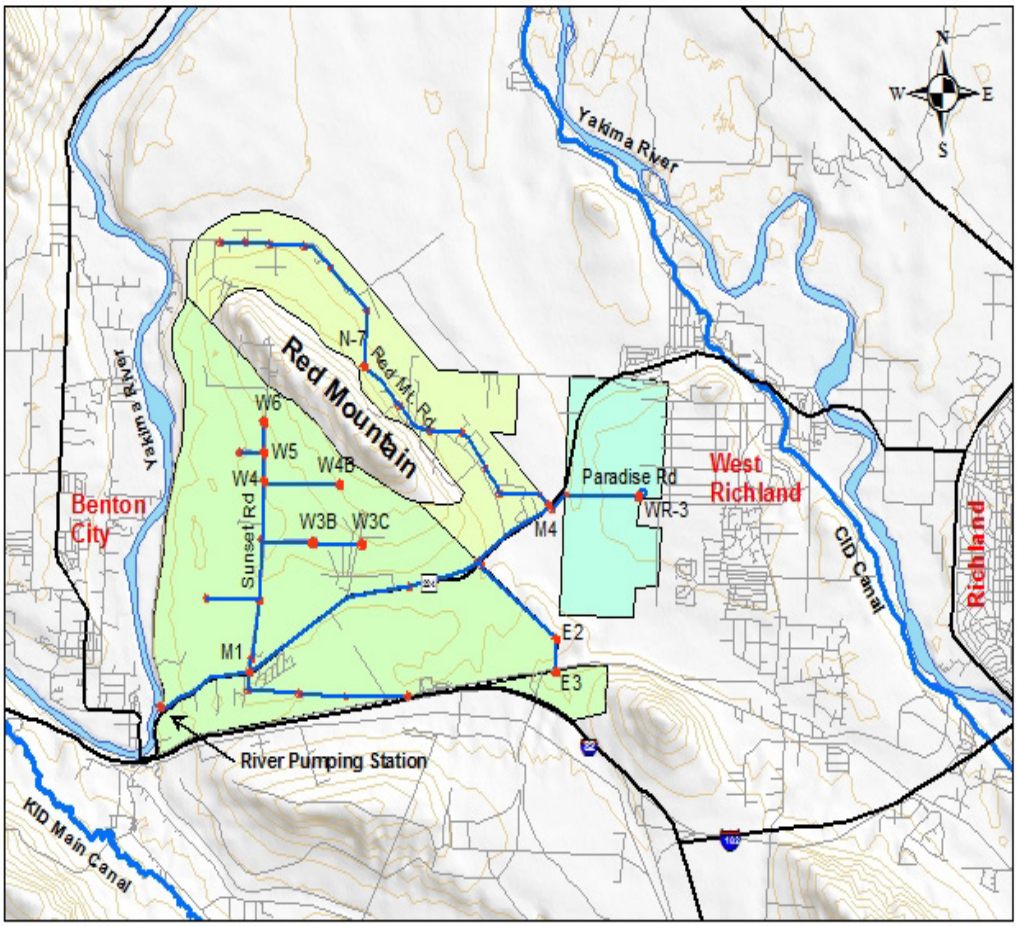
History of the KID New Columbia River Water Right Permit

- ✓ **1990 Application to WADOE (Phase I and II Analysis Approach):**
  - **Focus on Columbia River New Water with "Exchange" for Yakima Water in the Old Lands Area.**
  - **Additional water, with Acre-for Acre Exchange.**
  - **82 cfs, 4,637 Acres (Old Lands Area Water Exchange).**
  - **New Place of Use was the Greater Red Mt. Area.**
  - **New Points of Diversion Added to Main Canal POD:**
    - **Main Canal at Kiona to Red Mt. Area.**
    - **Edison St. Pump Station.**

- ✓ **Litigation, Phase I and II Analyses, and the Columbia River Water Management Legislation (RCW 90.90) Led to the "Alternative 5" Configuration (2004-2007).**
  - **Focus on Columbia River New Water with "Exchange" for Yakima Water in the entire District (Maximize Exchange for Cost-Effectiveness and *Water Left In Yakima River Reach.***
  - **Acre-for Acre Exchange**
  - **Internal KID Recalibration of Water Right Acres—Assess Only Wet Acres, Move Water within KID District.**
  - **195 cfs (with losses), 11,622 acres (Old and New Lands Water Exchange).**
    45 cfs Red Mt./West Richland Area, 3,275 acres.
    10-12 cfs S. Ridge Area, 700 acres
  - **New Place of Use was the Red Mt. Area and S. Ridge.**
  - **New Points of Diversion Added to Main Canal POD:**
    - **Main Canal at Kiona to Red Mt. Area.**
    - **Edison St. Pump Station.**

- ✓ **New Ecology and KID "Joint" Permit Proposal Retains Several Features of the "Alternative 5" Configuration.**

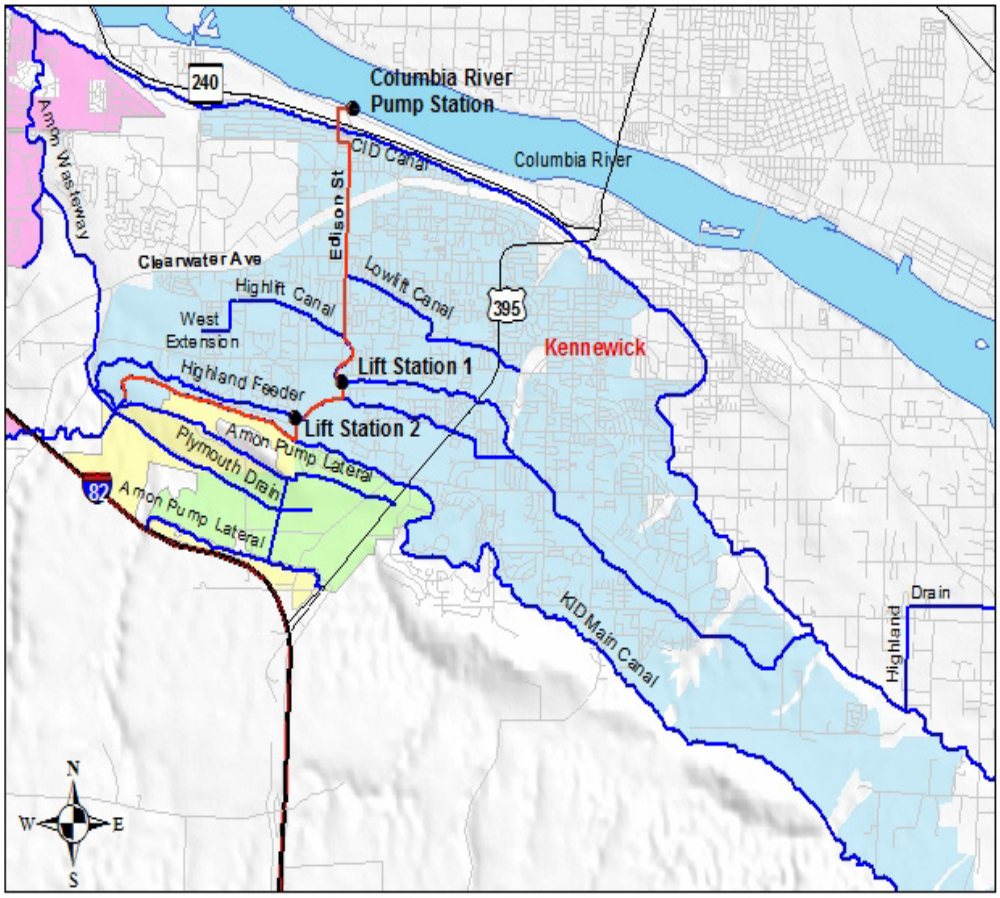
The Red Mt. and West Richland Portion
Of the New Columbia River Water Right System Integration



Surface Water Diversion at Kiona:

- **Max. 8,060 acre-ft. diversion, end-use.**
- **32 cfs Max. diversion at Kiona.**
- **3,225 irrigated acres, end-use demand @2.5 acre-ft./acre (or less).**
- **(3) 750 hp pumps, VSD Panel, initial 42 inch mainline.**

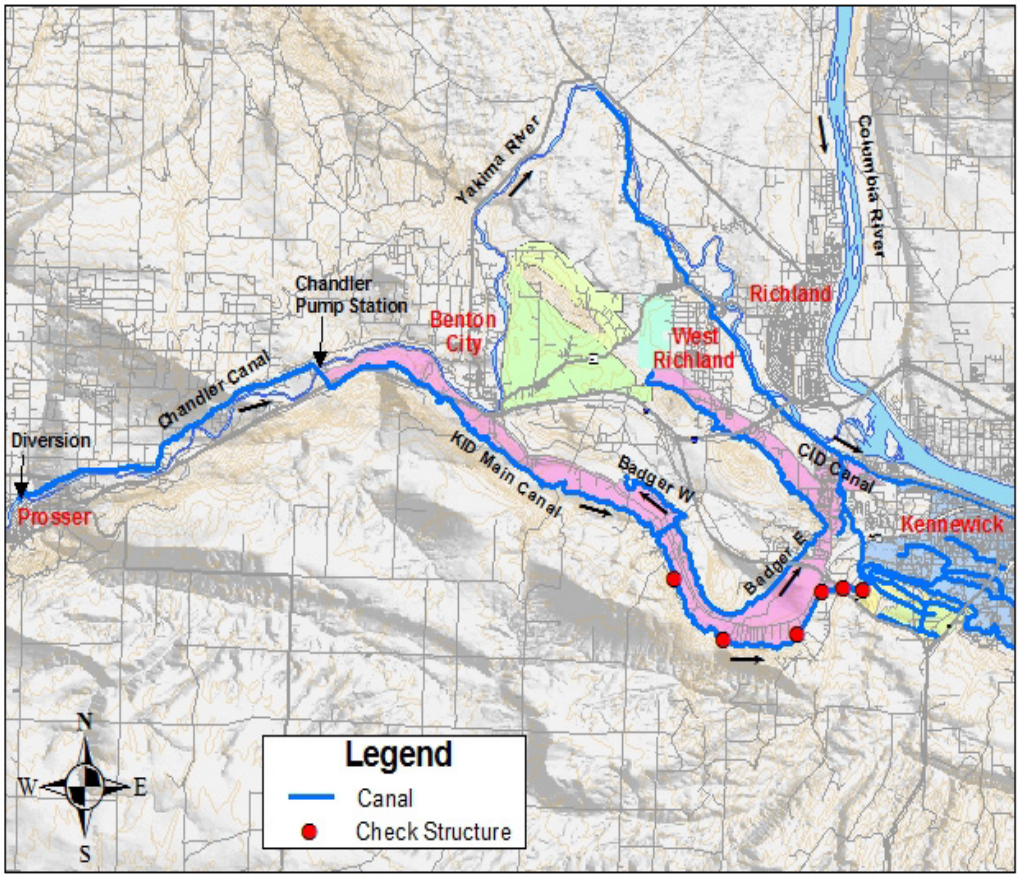
Edison St. Pump Station Service Area and S. Ridge Portion Of the New Columbia River Water Right System Integration



Surface Water Diversion at Edison Street:

- -- 32,617 acre-ft. Max. diversion, end-use.
- -- 158 cfs Max. diversion at Edison St. (with seepage and return flows).
- -- 11,622+ irrigated acres, end-use demand @<3.5 acre-ft./acre average, <u>without recalibration of "wet" acres.</u>
- -- (2) 1,500 hp pumps, (2) 1,250 hp pumps, (1) 800 hp pump, ASD panels, and initial 84 inch mainline.

Main Canal System and Check Points
For New Columbia River Water Right System Integration



Surface Water Diversion at Chandler Station:
- **30,023 acre-ft. Max. diversion, end-use.**
- **155 cfs Max. diversion at Chandler St. (with seepage/Op. spills, return flows).**
- **Approx. 9,280+ irrigated acres, end-use demand @<3.5 acre-ft./acre (average), <u>without recalibration of "wet" acres.</u>**

Ecology-KID Joint Permit Proposal and Actions:

- ✓ **New Columbia River Water Permit Issued Under RCW 90.90—with Yakima River Water Exchange Mitigation.**
  - **A new Columbia River water right permit is issued for approximately 158 cfs withdrawal at the Edison St. pump station, with an "acre-ft. for acre-ft." exchange with the existing Yakima River water right.**
  - **The new Columbia River water withdrawal (158 cfs) is subject to pro-rated Yakima River water right withdrawals.**
  - **The KID may use its new Columbia River water right (158 cfs) for any amount of acreage within the District, or water duty per acre, within its designated service territory.**
- ✓ **KID's Existing 82 cfs Application (1990) Stands Pending Action.**
  - **The existing KID's 82 cfs application for new Columbia River water remains in good standing, to be processed in the future per available mitigation water, under RCW 90.90.**
- ✓ **The Kiona and Edison St. pump station PODs are provided under the new Columbia River water right.**
- ✓ **The portion of the (USBR-held) Yakima River water right that is allowed to remain in-river, per the conditions of the new KID water right, is placed into the Trust Water Program.**
  - **It is effectively designated mitigation water, per RCW 90.90, and left in-stream, between Prosser and Edison St.**
  - **The total water use allowed under the existing CFO is not changed—the CFO cfs, acres, and acre-ft remain the same.**
  - **The KID's existing CFO (102,674 acre-ft.) is designated as the estimated beneficial use for the new water right (with new 15-year development schedule for fixed plan of development).**
- ✓ **The Ecology Dept. has committed up to $15 million to cost share with the USBR (or others) for the Edison St. pump station.**

Ecology-KID Joint Permit Proposal and Actions:

- ✓ **The Pros:**
  - **No risk to KID if inaction occurs on new permit--existing conditions remain the same until development actions are in place; does not "forfeit" the pending 82 cfs application.**
  - **The KID receives greater flexibility in the use of its existing water right (changing water duties/place of use are easier).**
  - **The KID receives a de facto "15-year exemption" from relinquishment review, per new permit development period—if permit is written appropriately.**
  - **An ability to bring water to Red Mt. (or elsewhere) is put into play—in near-term.**
  - **The existing additional water use application is honored (82 cfs); and Ecology views this as "mitigation" water for the new permit (remove the pro-rated features).**
  - **Ecology has already committed funding to Edison St. Pump Station—they are highly interested in the water transfer.**
- ✓ **The Cons:**
  - **KID has to "do something" (think creatively, work, re-allocate water, talk to water users, and accept change):**
    - **Recalibrate KID water rights (this must be done, with or without new permit); but not a "heroic" task.**
    - **Recalibration has to be timed with new development (assessments) for financial purposes.**
    - **Improve system water use measurement.**
  - **No action on Red Mt. or elsewhere without existing water right recalibration.**
  - **The District must equitably assign costs to District beneficiaries—cost allocation review required.**
  - **Changing the status quo may be viewed as unacceptable to rate payers, even if equitable cost-sharing is in place.**

RECOMMENDATION

Ecology-KID Joint Permit Proposal and Actions:

- ✓ **Proceed with Ecology to secure permit under the 11/2/2007 joint proposal—no risk venture, and allows for forward momentum.**
  - **Work-out more details and potential issues with Ecology.**
  - **Secure funding from USBR for capital improvements.**
  - **Work with BPA to secure power costs funding.**
- ✓ **Recalibrate now the existing KID water rights within the KID service territory—internal KID operation.**
  - **Technical issue is not that difficult (BMID example).**
  - **Financial issue—base costs on acre-ft. of delivered water rather than acres serviced, where recalibration occurs.**
- ✓ **Review cost of service needs for dealing with "who pays for what."**
  - **Reach fair and reasonable equity allocations.**
  - **Red Mt. is in position to pay their costs and receive some available water per District recalibration.**
- ✓ **Recognize and accept that the KID of tomorrow will not look the same as the past—**
  - **"Talk" to your rate payers—what are their expectations for quality of life and economic needs (water use).**
  - **Modernize the system—use the Edison St. portion of the new water right to do as much as possible.**
  - **Water rates will increase to maintain the current system performance.**
    - ✓ **Infrastructure costs.**
    - ✓ **Water measurement and control costs.**
    - ✓ **Water efficiency measures.**