

Yakima Groundwater Study:

Why was it done it and how will it be used?

Association of Western States
Engineers

A little history?

- Litigation began in 1994
 - 43 recommended permits were appealed
 - 27 appeals were deemed timely by the Court of Appeals
- Settled the appeals in 1999
 - Ecology, Yakama Nation, and USBR GW MOA
 - Ecology and USBR agreed to fund \$6.5 million GW study
 - 27 individual settlements
 - 22 permits were issued
 - \$856,000 paid to USBR for a mitigation fund
 - 5 recommended permits were withdrawn

Yakima GW MOA Purpose

- A common technical platform for making sound, efficient, and consistent water resource management decision in the Yakima River Basin including future government management, allocation, and mitigation decisions

Yakima GW Study Goals

- To obtain additional information for making ground water management decisions
- To conservatively manage to ground water resource on an interim basis...

Yakima GW Study

- To develop a conceptual framework report and appropriate numerical model
- Study team from USBR, Ecology, and Yakama Nation to work with model developers to design, implement, and monitor the study



USGS study

LOWER YAKIMA RIVER

YAKIMA CANYON



What did we get?

- The most complex model developed by the USGS to date
- The model has not been run to equilibrium -- calibration was against 1950-2000 water level and stream flow data – it is not a steady-state model
- Yakima River flow reduction resulting from 1950-2000 ground water pumping is predicted to be 200 cfs

The challenge

- **RCW 90.44.030 -- Chapter not to affect surface water rights.**
- The rights to appropriate the surface waters of the state and the rights acquired by the appropriation and use of surface waters shall not be affected or impaired by any of the provisions of this supplementary chapter and, **to the extent that any underground water is part of or tributary to the source of any surface stream or lake, or that the withdrawal of groundwater may affect the flow of any spring, water course, lake, or other body of surface water, the right of an appropriator and owner of surface water shall be superior to any subsequent right hereby authorized to be acquired in or to groundwater.**

Now what?

- ◉ Conjunctive ground water management?
 - Rules?
 - Adjudicate all ground water rights first?
- ◉ Mitigated permits for new uses?
- ◉ Mitigation strategies to offset existing ground water uses?