Groundwater Task Force Project Concept
Summary

The Umatilla County Board of Commissioners established the Umatilla County Critical Groundwater Task Force (Task Force) in January 2004. The Task Force is charged with the task of producing a doable "2050 Plan" to assure groundwater for broad community needs through the year 2050.

Task Force Findings to Date

1) The State of Oregon established 4 Critical Groundwater Areas (CGAs) in Umatilla County**.**
2) Water supply problems in the Umatilla Basin are not unique to West County or the CGAs.
3) There is increasing demand on finite groundwater and surface-water resources.
4) Groundwater and surface water are interconnected: significant development of one resource has affected the availability of the other.
5) The Umatilla Basin Project has partially restored the salmon fishery in the Umatilla River while maintaining a strong agricultural economy in the basin.
6) Water availability in the Umatilla River is uncertain due to unquantified tribal water claims, existing irrigation rights, fishery needs and unreliable flow.
7) Groundwater is the primary water source for domestic and municipal users as well as many irrigators.
8) Domestic use (current and planned) has minimal effect on groundwater supplies.
9) Rights to groundwater and surface water exceed available supplies, thereby creating a water deficit in the Umatilla Basin.
10) The scientific data is not available to either define the basin's sustainable water supply or predict the effects of groundwater development on streamflow.
11) Obstacles to resolving the water-supply deficits include the high cost of projects and hydrologic studies, legal limitations on the use of federal facilities (canals, pumps, diversions, reservoirs, etc.), competing water needs and demands of the various stakeholders including the environment, the magnitude of the deficit, and limited resources to fill the deficit without injuring other uses or needs.

Goals for Improving Water Supplies and Management

1) Relieve the full irrigation season groundwater deficit in the Critical Groundwater Areas.
2) Prevent further declines in groundwater levels throughout the entire Umatilla Basin.
3) Utilize available Columbia River water to relieve water supply deficits in the Umatilla Basin.
4) Minimize use of Umatilla River flows and groundwater in the lower basin so these water supplies are available for upper basin uses, including Umatilla Tribes' unquantified water claims, where use of Columbia River water is currently not feasible.
5) Restore stream flow in the Umatilla River during low-flow period.
6) Develop water supplies for future uses throughout the basin.
7) Obtain the necessary scientific data to manage water resources for sustainability and to meet the water needs for multiple beneficial uses as determined by the local community.
8) Reach parity amongst all Columbia River Basin water users.

Four Steps to Reduce the Water Supply Deficits – Summary

1. Utilize Columbia River Water for replacement of certificated groundwater irrigation rights.
This approach would deliver Columbia River water to replace the certificated groundwater rights in the CGAs. The purpose would be to fulfill 100% of certificated irrigation water rights and to guarantee water for the entire crop year. This would significantly reduce groundwater pumping and may allow the aquifer to recharge. Evidence suggests, however, that groundwater recharge is very limited and further study is needed to determine sustainable use of the aquifers. Groundwater recharge may not be adequate to meet existing demand for other uses, including exempt (domestic) wells and municipal and industrial uses.

This approach would complement existing artificial recharge and other environmental restoration projects in the basin.

About 125,000 acre feet of surface water is needed to meet certificated or currently permitted groundwater irrigation rights in the CGAs in Umatilla County. Columbia River water could be used as follows:

- Deliver 73,000 acre-feet in existing Phase II or other infrastructure
  - Stage Gulch Storage Project (20,000 - 30,000 acre-feet).
  - Expand Cold Springs Storage (20,000 – 30,000 acre-feet).
  - Balance of need (~20-25,000 acre feet) would be met by aquifer recharge (storage) in the alluvial aquifer and by direct supply.
- Utilize existing and new infrastructure to distribute 52,000 acre-feet of water into the CGA's.

2. Provide Funds for Groundwater Studies to Ensure Water-resource Sustainability.

Defensible scientific data on the basin's hydrology is essential for water managers to meet existing and future water-supply needs. A comprehensive groundwater study by the USGS with optimization modeling (analysis of the short and long-term effects of various water-management alternatives) is needed by water managers and stakeholders to make informed decisions on how water is managed in the Basin. Funding from the State of Oregon and stakeholders would be required to complete the study.

The comprehensive groundwater study would be used to:

- Promote development of a consensus and scientifically based approach to water resources management
- Provide technical tools to protect existing water- and land-use investments
- Provide a water budget for planning, development and resource sustainability
- Protect instream flows from effects of groundwater development
- Prevent social, economic, and environmental consequences of over use

3. Settlement of CTUIR Water Claims and Maximize benefit of Phase III exchange infrastructure.
The CTUIR, Westland Irrigation District (WID), and State of Oregon are working in concert to plan and implement Phase III of the Umatilla Basin Project. A Phase III project could provide Columbia River water to WID and others in a bucket-for-bucket exchange for the district's McKay Reservoir and Umatilla River water. McKay and Umatilla River water could be used by the CTUIR for fishery augmentation and for consumptive use on the Reservation to meet CTUIR water needs. The project could provide WID with a more reliable water source. An added feature to Phase III might be the use of the infrastructure to deliver and store Columbia River water to help offset some of the water deficits in the CGAs. Such use of the infrastructure could increase the benefits of the Phase III project and distribute the financial obligation among more users. Further discussions are needed to determine the feasibility of using of Phase III infrastructure to help alleviate the water deficit in the CGA's.

4. Protect Benefits and Assurances
Eliminating current ground and surface water deficits is costly and may be funded by the beneficiaries of projects. Adequate protections through a coordinated monitoring and management program must be in place to assure project benefits. Possible techniques to provide assurances include:

a. Establish local oversight board to monitor allocation of new supplies and project operations
b. Provide adequate financial and other needed resources to monitor and manage projects
c. Determine beneficiaries for assessment of debt obligation and assure delivery of water supply
d. Impose a temporary cap on new alluvial and basalt groundwater rights
e. Define project boundaries and establish rules that retain water supplies within the boundaries
f. Protections to alleviate impacts to agriculture (e.g. assurances to limit price gouging)
g. Modify State laws and rules
h. Identify future priority uses and needs and protect supplies to meet the needs
i. Implement a debt repayment program for water project and water-supply studies.