

## Water Rights Acquisitions Allow Water Treatment To Aid Expansion

■ After two months of testing, the new system goes on line.

By Ron Karten

On Monday, March 1, the Tribe switched the casino complex from the community water system to treated water from the South Yamhill River. The rollover affected the Spirit Mountain Casino, lodge and convenience store, and except for a few casino goers who were directed to bathroom facilities at the lodge way early on the morning of March 2, when water service was briefly interrupted to add basket strainers to existing pipes, nobody seemed to notice.

More than four years worth of work went into development of the system that finally allows expansion at the casino complex without jeopardizing growth in the rest of the Grand

Ronde community, including the Tribal holdings along Grand Ronde Road.

The question has been in play since before the casino opened its doors in 1995, when the Tribe also began what turned out to be the largest building effort the area has ever seen.

The Grand Ronde Community Water Association (GRCWA) had been stretched to its limit in recent years, and while new building permits were never turned down for lack of water, according to Grand Ronde Community Water Association manager Karl Ekstrom, some of the decisions were held up for six months or a year, and the Tribe's big projects were carefully considered or delayed because of the area's water shortage.

Taking the casino complex off of the community system will cost GRCWA about \$5,000 a month in revenues, but leaves the system with enough water for the foreseeable future, said Ekstrom. "It's going to be a lot better for the community. We're going to lose some revenue, but I'd rather have the water than the money."

For two years, Tribal Engineer and Project Manager Eric Scott and Staff Attorney Lisa Estensen worked through water rights issues, transferring and buying rights enough to give the casino complex water for the upcoming lodge expansion. And it leaves the community system plenty of supply to fill the water needs of other community and Tribal projects.

The Tribe converted some irrigation rights to

quasi-municipal use and purchased other irrigation rights to pour back into the river in summer in exchange for the right to take water out of the river at other times. In the end, the Tribe had acquired rights to use up to 230 gallons a

requirements for the community, according to Scott.

Still, the water treatment plant remains connected to the community system as an emergency back-up for fire protection for Tribal buildings and woodlands as well as for the community in the event of a catastrophic failure of the community system. The system has an 80,000-gallon chlorine treatment and storage tank that includes 42,000 gallons of "finished water" storage. This provides a backup for peak water demands at the casino and lodge.

Day to day, two membrane filters each produce 50 gallons

per minute (gpm) for the system with a 90 gpm capacity for each. Casino and lodge needs are currently 100 gpm. And the system has room to install more such filters should they be needed in the future.

A sophisticated monitoring system enables staffers to check nearly every part of the system, including the height of the river, chlorine content in the treated water and pressure in the pipes. The system is even ready for curing water discoloration in the fall when leaves fall into the river.

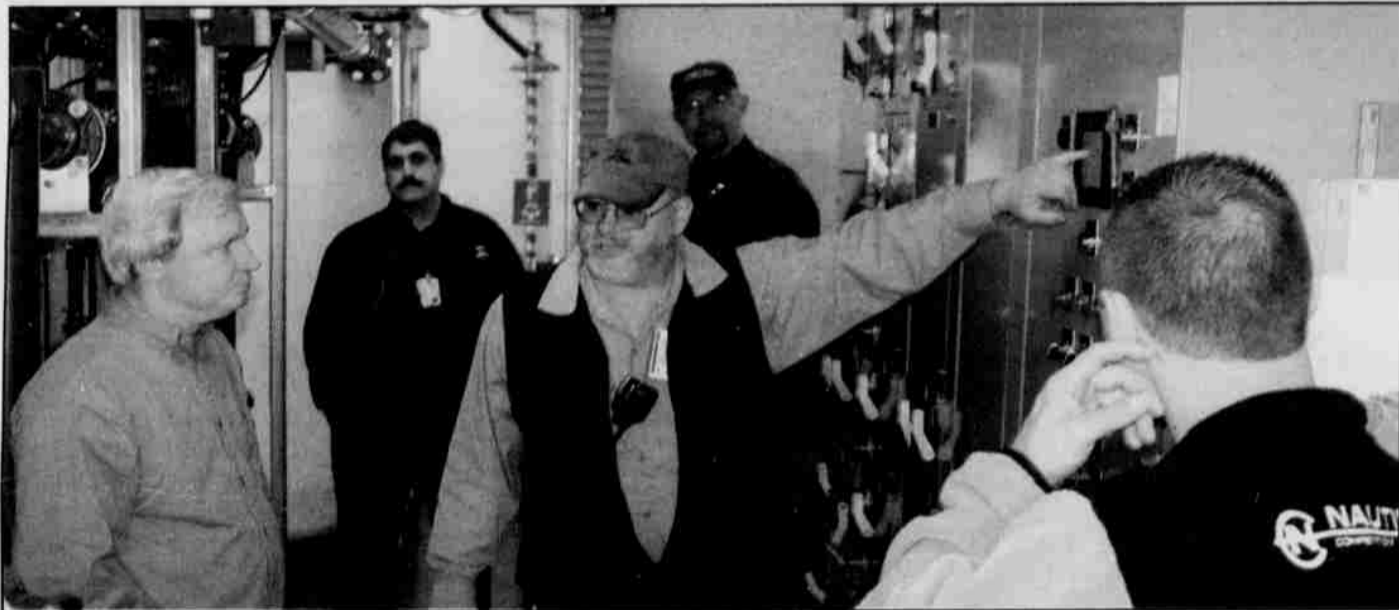
Beyond the daily consumption needs of casino customers, the project took into account other possible uses for the system. The casino complex's landscaping needs call for 20,000 gallons a day during the summer season, for example, and all of that comes from retreated waste water from the system.

A drain field between the treatment plant and the river allows unneeded waste water to clean itself in the ground on the way back to

nature's storage areas.

Schneider Equipment served as General Contractor for the project. HGE Engineers out of Coos Bay were design engineers. Staff Attorneys Estensen and Steve Kelly worked on water rights issues and contracts, respectively. A Natural Resources construction crew did a lot of the phase I and II construction work. Staff for the system includes Robert Jones, Rod Smith, Matt Givins, Tribal member Ron Reibach and Ron Sabatini.

The project came in \$90,000 under budget, said Scott. ■



**Show & Tell** — Water treatment plant operator Robert Jones points to one of the operational screens that control the Tribe's new state-of-the-art water plant during a grand opening tour. The new water treatment plant enables the Tribe to go ahead with expansion of the Spirit Mountain Lodge and future projects.

minute from the South Yamhill River for most of the year.

The river was so close to being tapped out as the Tribe acquired these rights that it likely brought home the last water right that ever will be granted for the South Yamhill River, according to Scott.

Design work for the project's lynchpin, the \$1.65 million water treatment plant that keeps all this water potable, was about seven months in process. Three phases of construction work



**RiverWalk** — Tribal Engineer Eric Scott (fourth from left) stands on the bank of the South Yamhill River and explains where the treatment plant pulls water from the river at a maximum rate of 230 gallons per minute.

went on for about 18 months, culminating in the two-month period from January through the March 1 rollover when Plant Operator Robert Jones and his team had the luxury of testing the system, and experimenting with its different features "so we have a real good comfort zone as to how it will work."

Water from the two systems are kept separate, said Scott. Because the Tribal water system is a surface source in need of filtration and chlorination and the community system uses ground water that is not chlorinated, mixing the two water sources might trigger additional treatment