Water: An Untapped Resource Gets a Second Look, Part I

Old Report Identified Reservation's Water Potential

Water has long been the one natural resource considered the most valuable and the least used on the reservation. Tribal members take fish from the waters but do very little with the water itself. Presently the tribes are taking a look at the possibilities of harnessing power from the regulating dam and at installing pumps near Alices Restaurant to bring water to the Tenino Valley for irrigation purposes. This series will attempt to explain what has been done in the past, what is being done now and what will be done with water on the reservation in the future.

In 1912, Mill Creek was thought to be a perfect spot from which to take water for irrigating Sidwalter and Miller Flats. But to do so would have cost $96,000, even in that early year. Top photo was taken one mile below old "Saw Mill." Bottom photo shows man gaging Mill Creek at intake site for proposed canal. Photos from report by H.W. Hincks

by Donna Behrend

Even sixty-seven years ago, government engineers were concerned about energy and irrigation problems. Except at that time, there were only seven-hundred-sixty-two tribal members living on the reservation and all the natural resources were virtually untapped.

A copy of a 1912 report recently discovered by the Natural Resources department reveals that BIA engineer H.E. Hincks was sent to the reservation in December 1910 to "survey and investigate the feasibility of any irrigation possibilities on the reservation."

Hincks found through his investigation that the timber, irrigation and power possibilities on the reservation were substantial, to the say the least, and that if the reservation was ever terminated all rights to existing natural resources should be reserved for tribal members.

Apparently the 50-mile trip from Shaniko, which was the nearest railroad at the time, was quite a difficult one. "It was necessary to hire a livery wagon and four horses to transport ourselves and baggage from the end of the railroad to the Agency, where we arrived on the third day after a tiresome trip. The roads in Oregon in the winter time are anything but pleasant to drive over, especially in an open and springless wagon. The weather was very cold when we arrived at the Warm Springs Agency, the temperature being only a few degrees above zero," Hincks reported.

In January 1911, Hincks, another Bureau employee, two Indian axemen and a cook journeyed from the Agency to the water-powered "Saw Mill" twenty miles west. "It was with difficulty that we were able to survey the four-and-a-half miles of preliminary line for the proposed Mill Creek canal. Weather conditions worsened, and it was hopeless to try to survey the irrigable land on Miller Flat as it was covered with snow."

The survey party returned to the reservation in June 1911 and continued their surveys of the Miller Flat and Mill Creek areas, finishing in August of the same year. Again, in the winter, the weather prohibited any further surveys, and the party left the reservation until the following summer when all surveys were completed.

What the reservation looked like in 1911

The report offers a profile of the reservation, including the location, the road system (or the lack thereof), population, timber and agricultural lands, and rivers.

Of the local people Hincks wrote, "Warm Springs Indians are inclined to maintain their old customs and still wear blankets and have long braided hair and are slow to adopt the ways of the white man. On the other hand, the Wascoes and Paiutes are very industrious and friendly to the whites and have adopted the modern dress and are of the short-haired type."

The chief industry at the time of the report was stock raising and farming. "The Indians own about seven-thousand head of horses and two-thousand head of cattle which graze at large on the reservation." The unbroken horses were sold for five to twenty-five dollars each, and dressed beef was sold for seven to ten cents a pound, according to the report.

All the farming was done on a very small scale with "most of the Indians cultivating small, irregular patches, just sufficient for their own needs. Altogether about six-thousand acres of land is under cultivation, the largest area farmed by one Indian being two hundred acres. No irrigation has been attempted although they have a good opportunity to irrigate their small patches next to the creeks if someone would show them how to do it." The 1500 acres in Tenino Valley were considered the most fertile on the reservation, but Tenino Creek was not large enough to supply sufficient water for the irrigation of "this pretty little valley," wrote Hincks.

A few Indians were engaged by the government as forest guards, saw mill employees, freighters and school employees. Those who worked at the saw mill while the Oregon Trunk Line was being constructed were paid "fifty cents per thousand feet of lumber per mile haul" to transport lumber from the mill to the railroad.

In 1912, 454 tribal members had been allotted 80 acres of agricultural land or 160 acres of timber or grazing land. Most used this land to raise hay and grains and there were "frequent crop failures on account of the late and early frosts," which could occur anywhere from June 14 to September 11. "The temperature at the agency ranges from 32 degrees below zero to 109 degrees above. The air is dry and can be tolerated easily. The nights are always cool."

"The soil on the flats consists of a thin layer of disintegrated lava and volcanic ash, ground up very fine by glacial action and other forces, mixed up with volcanic boulders of various sizes ranging from a few inches to several feet," Hincks wrote. "On Miller Flat and on Mill Creek flat there is an interesting and odd formation in the shape of hummocks or mounds of earth about three feet in height and thirty feet in diameter. At the base of each mound, small black boulders are exposed, forming perfect circles and other regular geometric figures."

Precipitation recorded in the report is a bit questionable. Hincks wrote "the average rainfall for the lower elevation is about 12 inches and it increases toward the mountains until at the summit, the rainfall is probably about 50 or 60 inches." More current records show that the rainfall for the higher elevations is half of what Hincks reported in 1912.

The water supply on the reservation was called phenomenal in 1912, with the "Deschutes River one of the most remarkable rivers in the United States for its steady flow and rapid fall and makes its power possibilities outstanding." Hincks stated that the "middle of the Deschutes is the eastern boundary of the reservation. . . therefore the Indians are entitled to half of the water rights in the river for power, irrigation or other purposes." Of course, this statement was rectified by the Winters decision, as interpreted by William H. Veeder, who said that "the Indians retained for themselves by their Treaty of 1855 did not convey away their title to the rights to the use of the water in the streams which rise upon, border upon or traverse their reservation. Those rights, like the lands to which they are part and parcel, may be exercised for any purpose."

Hincks described the Warm Springs river as "the most important stream wholly within the reservation regarding power possibilities." The Kah-Nee-Ta hot springs were also mentioned. "The principal hot spring is a half mile below the old bridge at the lower crossing. This is used every summer by a great many campers who come in from the adjoining plains to take advantage of the hot water baths, and for which privilege they pay the Indian who has his allotment at the springs at the rate of ten cents per day. The present bath house is a crude board affair and the springs are worthy of a better structure for a bath house." There are no records available to show who had allotment of the land at that time.

It was Hincks' opinion that the Warm Springs River be used to produce power rather than be used for irrigation purposes. "The river, after leaving the timber, flows in deep canyons with very little irrigable land along the bottom." He continued, saying "I think the most feasible plan for the development of power on the Warm Springs River would be to take the water out by a small diversion dam at about mile 32 and carry it out in a canal onto the flat between the Warm Springs River and Badger Creek and drop it over the rim at about mile 20. The power that would be produced is 8,951 theoretical horsepower or say 7,100 horsepower at 80 percent efficiency." That horsepower is equivalent to that in 5,000 cars.

Shitike Creek was used in 1912 to supply the Agency with domestic water and power. Theoretically, the creek could supply about 24.5 horsepower but in actuality the crude power plant delivered only 9.1 horsepower due to poor alignment, small belting and a crooked shaft.

"All the rivers and creeks on the reservation, if harnessed, would produce three times the total developed power of Niagra Falls and one-seventh of the total water power in the United States, Hincks wrote in his report.

Hincks recommended that certain parcels of land be withdrawn from "location, entry, sale, allotment or other appropriation in case the Department intended to terminate the reservation. "I believe the interests of the Government and the Indians would be best subserved by perpetuating the present reservation, and in that case no further action would be necessary to protect the water rights of the Indians." He continued by writing, "as the area of agricultural land on the reservation is limited and insufficient for the needs of the Indians, and if the timber and water power is reserved by the Government, the opening of this reservation would not benefit any settlers. Further, as stock raising is the principal occupation of the Warm Springs Indians, and as the flats and forests, being excellent grazing land, are well adapted for this purpose, I would respectfully recommend that the present Warm Springs Indian Reservation be perpetuated for the exclusive benefit of the Indians."