

The Wapinitia Project

Juniper Division

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The Wapinitia Project

The Wapinitia Project and its features, Clear Lake and Wasco Dam, do not appear on many maps or in many books. One could hazard a guess that few people outside of the immediate vicinity of the project and avid recreationists even know of its existence. Its relative obscurity does not, however, diminish the importance of the project to the local residents. The project provides supplemental irrigation water to farmers on the dry eastern side of the Cascade Mountain Range. At the same time, because of its position within the Mount Hood National Forest, Clear Lake offers a unique spot for recreationists.

Project Location

Located in north-central Oregon, the Wapinitia Project, Juniper Division, consists of Wasco Dam, Clear Lake, and a collection of previously non-Reclamation constructed irrigation structures, including canals, laterals and diversion structures. Specifically the project is about thirty-five miles west of Maupin in the White River Basin, on the eastern slope of the Cascade Mountains. The Deschutes River bounds the project area on the east side while Mount Hood National Forest forms its western boundary. The White River and Wapinitia Creek provide the northern and southern boundary, respectively, of the project. Clear Lake sits entirely within the boundaries of the Mount Hood National Forest. The main feature of the project, Wasco Dam sits across Clear Creek, half a mile below the outlet of Clear Lake, a natural lake in a mountain valley. The Project provides supplemental irrigation water to scattered lands on Juniper Flat, a plateau three to six miles wide and approximately seventeen miles long, between the Deschutes and White Rivers.¹

1. United States Department of the Interior, Water and Power Resources Service, *Project Data*, (Denver: U.S. Government Printing Office, 1981), 1275; Denver Colorado, National Archives and Records Administration: Rocky Mountain Region, Records of the Bureau of Reclamation, Record Group 115, "Annual Project History, Wapinitia (continued...)"

Historic Setting

Prehistoric Setting

The archeological record places various native dwellers in the Great Basin approximately 12,000 years ago. The Great Basin region—eastern Oregon, southern Idaho, Nevada, Utah, and portions of California, Wyoming, and Colorado—provided homes for many different, mostly nomadic inhabitants. The culture of these residents remained relatively contiguous and largely free of outside influence. Eventually, perhaps thousands of years later, these nomadic groups settled into particular areas and established distinct cultures and bands. Over time these early cultures gradually adopted similar languages, allowing them to communicate with each other but yet retain their individual lifestyles. Despite their unique cultures archaeologists classify these linguistically connected bands together as a single tribe, the Northern Paiute.²

Historic Setting

The Northern Paiute settled throughout eastern Oregon and western Nevada about one-thousand years ago. At the time of European contact the Paiute consisted of several culturally and politically distinct cultures bound linguistically, all speaking the Northern Paiute language. These early tribes were semi-nomadic and traversed the region in small bands hunting, gathering, and fishing.

Life changed rather dramatically for portions of the Northern Paiute, principally those living in eastern Oregon, during the late eighteenth century when the horse, originally brought to the Americas by Spanish conquistadors and readily taken up by the Plains tribes, made its way to the northern reaches of the Great Basin. The acceptance of the horse by the Plains tribes

1. (...continued)

Project—Oregon,” volume 1, 1959-60, 1.

2. William C. Sturtevant, ed, *Handbook of North American Indians*, Vol. 11, *Great Basin*, Warren L. D’Azevedo, ed, (Washington, D.C.: Smithsonian Institution, 1986), 121, 124.

accelerated the horse's migration throughout the west. The first group of Northern Paiute to adopt the horse radically altered their culture in response; after traveling with their Northern Shoshone neighbors for many years this portion of the tribe became known as the Bannocks.

Not all the Northern Paiute adopted the horse as readily as the Bannocks. Peter Skene Ogden of the Hudson's Bay Company documented in detail his travel throughout the region as a trapper, including descriptions of the various inhabitants he encountered. Ogden's 1826 account included a description of a group of Northern Paiute living in north central Oregon near the Deschutes River. This particular band of Northern Paiute that Ogden encountered either used few horses or none at all. Instead the majority of the Northern Paiute continued their traditional means of subsistence, fishing, gathering, and hunting. Many of the trappers and explorers documented the existence of horses throughout the Great Basin and the apparent choice by the Northern Paiute not to integrate the animal into their established cultures.

As the Euro-American presence in the west increased through migration and settlement so did the outside influences on the native inhabitants. Not surprisingly local acceptance and use of the horse coincided with the marked increase in traffic west through the Northern Paiute country during the late 1840s and 1850s. With the arrival of the horse many Paiute hunters consolidated into mounted raiding groups targeting the migrating settlers which escalated already hostile relations between the two entities.

The fur trade initially attracted early Anglo settlers to Oregon; later interests turned to grazing and agriculture. Many westward travelers along the Oregon Trail left the Columbia Gorge near the Dalles to take the overland route to the south through various passes of the Oregon portion of the Cascade Mountain Range and into the Willamette and other western Oregon Valleys. Many of these trails later became stage and freight routes through the state. In

1845 and 1846, the Barlow Road was built through the pass around the souther base of Mount Hood. This road connected a settlement about six miles downstream of the present town of Maupin, Oregon, with the trail across the White River Basin and Sherar's Bridge, a point on the Deschutes River. Sherar's Bridge, a log bridge in a very narrow rock crevice, provided a reliable year-round crossing of the Deschutes River. The settlement boasted a hostelry, with barns and supplies and other convenience for the traveler, making it a famous way station for over fifty-years.

Anglo migration west devastated the Paiute culture. The California Trail passed through the center of Paiute territory disrupting traditional Paiute subsistence patterns. Many Paiute responded to the invasion of their native lands by moving further north into Oregon; the Oregon Trail touched only a small part of Paiute territory in the far north. Others chose to capitalize on the situation and found new means for subsistence in the wagons and stock traveling west to California in search of gold.³

The California gold rush did more to Oregon than just devastate the native landscape and inhabitants. Overland westward migration also brought settlement to the Oregon territory, then comprising most of Oregon and Washington as well as part of Idaho; Oregon officially became a territory in August of 1848. Previous attempts to settle the region, primarily missionary endeavors, made little overall impact on the region, however the massive western migration undertaken after 1848 provided the impetus needed to actually settle parts of the region. Many of these early settlement logically occurred on the western side of the Cascade Mountains, the east retaining its distinction of being part of the "Great American Desert."

Beginning about 1859, sheep and cattle ranching moved into eastern Oregon due to the

3. Sturtevant, 126, 435, 436, 455, 456.

overwhelming influence and dominance of wheat farmers in the western region. Cattle and sheep ranching originally began on the western side of the Cascades, however the profitability and ease of wheat farming in the region eventually drove the ranchers east where land remained plentiful. The wheat farmers also moved east when they determined that the high bench lands above the above the Columbia provided an excellent location for growing wheat.⁴

The same year, 1859, that settlement of the Oregon territory began in earnest, prospectors discovered gold and silver and in Northern Paiute territory; the Virginia Range in western Nevada and the Owyhee basin in Oregon and Idaho. The promise of mineral wealth brought prospectors and businessmen to the region, joining the farmers and missionaries already there. The Northern Paiute, for the most part mounted by this point, responded to this new influx of settlers with hostility. In an attempt to forestall any further damage to their native lands the Paiute chose to attack various encampments throughout the region. In the vicinity of Crescent Lake these attacks lasted nearly ten years prompting military intervention and ultimately led to the establishment of reservations. The Federal government designated several reservation areas, primarily in Nevada, as early as 1859.⁵

Settlement patterns in Oregon changed somewhat dramatically after the conclusion of the Civil War. Previously settlement of the region centered primarily on the west side of the Cascade Mountains. By the early 1880s, much of the usable western Oregon farmland was inhabited forcing new settlers to look for new areas to homestead and farm. Initially, new settlers on the eastern side of the Cascades caused problems for the existing cattle ranchers and farmers; the farmers eventually prevailed and the cattlemen moved on, most of them choosing to

4. Gordon B. Dodds, *Oregon: A Bicentennial History*, (New York: W. W. Norton, 1977), 82-3, 95.

5. Sturtevant, 456-7.

settle in Idaho.⁶

Not surprisingly the advent of farming in eastern Oregon brought a new set of problems to residents. Access to water and timber proved highly challenging, as neither one occurred in abundance east of the Cascades. Later residents found access to these vital natural resources even more difficult. To address the need for water local farmers banded together creating irrigation districts. The irrigation districts then developed plans for long term water usage, including provisions for storage if necessary. In many cases, due to lack of financial resources, irrigation districts often lobbied either state or federal interests for aid in constructing necessary irrigation facilities in their region.

One of the earliest efforts to irrigation in the vicinity of the Wapinitia Project began in 1905, when Joseph R. Keep filed an application with the Department of the Interior for a right-of-way for a dam, reservoir and ditch. Keep intended to impound water in Clear Lake and then supply it to farmers on Juniper Flat. Interior issued an easement to Keep in 1906. In 1911, Keep transferred his easement to the Eastern Irrigation, Power and Lumber Company without constructing any of the proposed irrigation structures. The easement changed hands again in 1914, this time to the Wapinitia Irrigation Company. The Mount Hood Land and Water Company succeeded the Wapinitia Irrigation Company in 1929. The Water Users Corporation of Juniper Flat, later renamed the Juniper Flat District Improvement Company, took control of the easement in 1937. Prior to 1937, little development work had been done in the area. In 1937 and 1938, the Water Users Corporation of Juniper Flat constructed a small wooden dam on Clear Lake. Beginning in March of 1938, the dam impounded water to a depth of just over seven-feet and then failed. After the failure of the structure, local residents did not try to construct another

6. Dodds, 115, 131, 135; "Annual Project History, Wapinitia Project–Oregon," volume 1, 1959-60, 1-2.

dam in the area.⁷

Project Authorization

Investigations of the irrigation possibilities in the area began as early as 1910. These initial investigations looked at the feasibility of additional water storage in Clear Lake and the construction of a V-shaped flume to transport logs to a sawmill just downstream. A supplemental purpose of this investigation was to determine the practicality of furnishing irrigation water to lands on Juniper Flat. A 1916 Report, prepared by the Reclamation Service and the Oregon State Engineer, contained reconnaissance information on the general area. This report indicated roughly 46,000 acres as being potentially irrigable, contingent upon water storage in Clear Lake, diversion of water from the White River, and purchase or control of the White River Powerplant. Nothing ever came of these early investigations and the area remained essentially unirrigated.

In 1945, Reclamation prepared an unpublished report on the White River Basin, based essentially on the same considerations as the 1916 report. Nothing came of this report for several more years, finally in the summer of 1952, Reclamation began more detailed investigations of the area. Reclamation made these investigations with the intent of finding a way to stabilize the water supply for lands under the Juniper Flat District Improvement Company. The report on the 1952 investigations became the basis for Congressional authorization of the project in 1956. President Dwight D. Eisenhower signed the law authorizing construction of the Juniper Division of the Wapinitia Project on June 4, 1956.⁸

Construction History

On March 27, 1958, Reclamation opened bids for construction of Wasco Dam at the

7. "Annual Project History, Wapinitia Project—Oregon," volume 1, 1959-60, 2.

8. *Project Data*, 1277.

Bureau of Reclamation office at the Madras Airport, near Madras, Oregon. Reclamation awarded the contract to C. H. Strong Engineering and Construction of Eugene, Oregon, on May 26, 1958. The contractor began work June 4, 1958. Reclamation accepted all work as complete on the contract November 12, 1959; the contractor essentially completed all work by late October of 1959.

On May 8, 1958, Reclamation opened bids for clearing of Clear Lake. Reclamation awarded the contract to the low bidder, C & S Construction Company of Mount Vernon, Washington, on May 28, 1958. The contractor started work June 24, 1958. Clearing was required only in the perimeter area around the existing lake and its adjoining marshes. Reclamation accepted all work under the contract as complete on November 6, 1958.

In late October of 1959, with the approval of the Assistant Commissioner and Chief Engineer Grant Bloodgood, project officials opened bids for installation of a reservoir-level gage. Reclamation awarded the contract to Baker & Sons of Prineville, Oregon, on October 30, 1959. The contractor began work on November 10, 1959. Reclamation accepted all work as complete on December 1, 1959.

On December 9, 1959, following completion of construction activities on the project, Reclamation turned the operation and maintenance of Wasco Dam and Clear Lake over to the Juniper Flat District Improvement Company.⁹

An earthfill structure with a twenty-foot crest, 417 feet long, and forty-six feet high, the Wasco Dam sits on Clear Creek approximately one-half mile below the outlet of Clear Lake, a natural lake in the mountain valley. The outlet works consist of a twenty-foot wide approach and outlet channels, a submerged vertical intake structure, a single rectangular four by five foot

9. "Annual Project History, Wapinitia Project–Oregon," volume 1, 1959-60, 11-3; "Annual Project History, Wapinitia Project–Oregon," volume 2, 1961-2, 16.

conduit, a gate chamber with two three-foot square manually operated slide gates and two overflow weirs, and a fifty-six foot-long stilling basin. Crossing the left abutment, the emergency spillway consists of an unlined channel with a base width of thirty feet. A concrete overflow grade wall is in the spillway ten feet upstream of the axis of the dam.

Clear Lake provides a natural storage basin for project waters. The lake is located in a mountain valley formerly occupied by the naturally formed Clear Lake, near the summit of the Cascade Mountain Range. The reservoir captures the drainage from approximately eight square miles. The pool covers 557 acres and holds up to 13,060 acre-feet of water.

Water travels from Clear Lake down Clear Creek to previously constructed non-Reclamation distribution works. A diversion structure on Clear Creek, about three-miles downstream from the dam, diverts water into a delivery canal. The delivery canal then conveys water about twelve-miles before discharging it into McCubbin Gulch. The Gulch carries water an additional four miles before rediverting the water into the distribution system to irrigate project lands.¹⁰

Post-Construction History

The Wapinitia Project remained essentially problem free after the end of construction activities. In 1977, Reclamation installed new outlet gates. Fortuitously, 1977, was a dry year in the Northwest. The drought affected the water supply at Clear Lake rendering the lake nearly empty by the end of the year which made gate replacement considerably easier. Clear Lake refilled the following year, but due to the continued drought the lake emptied again by August of 1978. The drought abated the following year. The project remains problem free.¹¹

Settlement of the Project/ Uses of Project Water

10. *Project Data*, 1275.

11. "Annual Project History, Wapinitia Project–Oregon," volume 9, 1978-9, 3, N-2.

Operated and maintained by the Juniper Flat District Improvement Company, the Wapinitia Project provides supplemental irrigation water to just over 2,000 acres of irrigated farmland in the White River Basin. Prior to project construction the farms in the area produced good crops only during infrequent wet years. Stored irrigation water provided by the project allows for consistent production of irrigated pasture, hay, and wheat, the principle crops grown in the area. Private landowners held all of the lands in the project area prior to project construction.

Even before construction of Wasco Dam and increased water storage in Clear Lake, the area was a popular recreation spot for local residents. After construction of the dam which expanded the available surface area, recreation use of the lake increased, as did the resident trout fishery. In 1992, Clear Lake had nearly twenty-five thousand visitors.¹²

Conclusion

There are many Reclamation projects that people never even realize exist. These projects minimally impact their local environment, changing little of the natural landscape or ecosystem. The Wapinitia Project falls into this category. The construction of Wasco Dam did not drastically alter a natural landscape by flooding miles of habitat or providing a barrier for migrating and spawning fish. Instead, the small dam merely enhanced an existing natural lake, furnishing reliable supplemental irrigation water for local farmers. Most people will probably never even realize that Clear Lake is not entirely a natural lake, but the local farmers who receive water from the project realize its importance.

About the Author

Toni Rae Linenberger, a Colorado native, received her B.A. in History

12. "Annual Project History, Wapinitia Project–Oregon," volume 6, 1972-3, iii; United States Department of the Interior, Bureau of Reclamation, *1992 Summary Statistics*, (Denver: [1995]), 115.

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