Sea to Sierra Train Tour

Emeryville, California to Reno, Nevada
April 10-11, 2014

Topic:

2:38 p.m. Thursday, April 10 – Truckee River Water Issues California and Nevada

Introduction

Hello,

Background and History

- The Truckee River originates at Lake Tahoe in Tahoe City, California
- It flows approximately 120 miles to Pyramid Lake, a terminal lake located within the Pyramid Lake Indian Reservation.
- Most runoff in the Truckee River basin originates in the Sierra Nevada Mountains in California.
- A portion of that runoff is stored in Federal and non-Federal reservoirs located in California:
- Lake Tahoe (the top 6.1 feet of which are regulated by Lake Tahoe Dam) Prosser Creek, Stampede, and Boca Reservoirs (federal)
- Donner Lake (joint storage space owned by Truckee Meadows Water Authority and Truckee Carson Irrigation District); and Independence Lake (owned and operated by Truckee Meadows Water Authority).

- Operation of these reservoirs regulates much of the flow in the Truckee River basin in most years.
- While Truckee River runoff is stored in California, most of the stored water is used in Nevada to meet Municipal &Industrial demands in Truckee Meadows, fish flow requirements, hydroelectric power demands, and for irrigation.
- The first facility to impound the waters of the Truckee River was a private timber crib dam constructed at the outlet of Lake Tahoe in 1870.
- Construction of this dam initiated a series of disputes over rights to the use of the waters of Lake Tahoe and the Truckee River.
- Following enactment of the Reclamation Act of 1902, the Secretary of the Interior authorized construction of the Newlands Project, and the Reclamation Service (predecessor of Reclamation) began construction of Derby Diversion Dam and the Truckee Canal, which was an interbasin transfer of water from the Truckee River to the Carson River.
- The projects were completed by 1906.
- In 1903, Reclamation made claim to rights to water stored in Lake Tahoe for delivery to the Newlands Project.

- The United States subsequently filed a condemnation lawsuit and entered into a series of lengthy negotiations with the owners of Lake Tahoe Dam and other local interests.
- These negotiations culminated in a 1915 Federal court decree known as the *Truckee River General Electric* decree, which gave the United States an easement for and the right to operate Lake Tahoe Dam and its controlling works and set the first prescribed flow rates at the California-Nevada stateline, Known as the "Floriston rates."
- Between 1909 and 1913, Reclamation and the Electric Company reconstructed the dam at Lake Tahoe to its present configuration. The dam controls the top 6.1 feet of storage at Lake Tahoe as a Federal reservoir.
- In 1913, to secure water rights for the Newlands Project and Pyramid Lake Indian Reservation, the United States filed a quiet title action in Federal court in Reno, Nevada.
- This lawsuit, *United States* v. *Orr Water Ditch Company, et al.,* No. A-3, sought a comprehensive determination of water rights on the Truckee River and its tributaries and named as defendants all water users on the Truckee River in Nevada.
- A severe drought from 1929 to 1935 resulted in extensive controversy among Reclamation, irrigators (both in the Newlands Project and Truckee

Meadows), and landowners at Lake Tahoe over water rights, lake elevation, and attempts to pump water from the lake.

- Negotiations to settle these disputes resulted in the Truckee River Agreement of 1935 (TRA).
- Parties to the TRA were Interior, Sierra Pacific Power Company, Truckee Carson Irrigation District, Washoe County Water Conservation District, and other water right owners ("parties of the fifth part").
- During the 1930s, additional water storage was purchased and developed to further control flows in the Truckee River system.
- In 1939, Sierra Pacific reconstructed Independence Lake Dam with an associated reservoir capacity of 3,000 acre-feet and additional capacity of 14,500 acre-feet, for a total capacity of 17,500 acre-feet.
- In 1943, Sierra Pacific and TCID purchased the rights to 9,500 acre-feet of storage in Donner Lake. Operation of Donner Lake is governed by the Donner Lake Indenture.
- The 1943 Donner Lake Indenture directs that Donner Lake not fall below elevation 5932 feet during June, July, and August, except to meet minimum streamflow.
- Following Congressional authorization for the Truckee Storage Project in 1935, Reclamation began construction of Boca Dam on the Little Truckee

River. Construction was completed in 1939. The dam is operated by WCWCD.

- In 1944, the U.S. District Court for the District of Nevada entered a final decree (Orr Ditch decree) in the quiet title action brought by the United States in 1913 to determine water rights on the Truckee River.
- The Orr Ditch decree affirmed individual water rights as to the "amount, place and type of use, and priority" in Nevada and incorporated TRA, which provided for operation of Lake Tahoe and Boca Reservoir to serve those rights.
- Following Congressional authorization of the Washoe Project in 1958, Reclamation completed construction of Prosser Creek Dam on Prosser Creek in 1962.
- An agreement among Reclamation, Sierra Pacific, TCID, and WCWCD, the Tahoe-Prosser Exchange Agreement (TPEA) of 1959, provides for the conjunctive operation of Lake Tahoe Dam and Prosser Creek Dam.
- The purpose of TPEA—the first agreement in the Truckee River basin to exchange water stored in one reservoir with water stored in another reservoir to achieve multiple benefits—was to maintain fish flows in the Truckee River immediately downstream from Lake Tahoe.

- Also, under authorization of the Washoe Project Act, Reclamation completed construction of Stampede Dam on the Little Truckee River in 1970.
- As a result of litigation (*Carson-Truckee Water Conservancy District* v. *Watt,* 1982), a Federal court upheld a determination of the Secretary that his obligations under Endangered Species Act took precedence over his obligation to contract for delivery of water for irrigation and M&I uses from Stampede Reservoir.
- The court ruled that the Secretary must utilize all Project Water stored in Stampede Reservoir for the benefit of the Pyramid Lake fishes until the cui-ui and Lahontan Cutthroat Trout are no longer threatened or endangered, or until sufficient water for their conservation becomes available from other sources.
- In 1967, the Secretary issued regulations for the Newlands Project known as Operations Criteria and Plan (OCAP).
- The principal purpose of OCAP was to regulate diversions at Derby Diversion Dam to maximize use of Carson River water and minimize use of Truckee River water for the Newlands Project.
- Subsequent OCAP's have been in place, with the latest being the 1997 Adjusted OCAP.

- In 1968, the California-Nevada Interstate Compact Commission approved a provisional Interstate Compact (Compact) for allocation of the waters of the Lake Tahoe, Truckee, and Carson basins.
- The Compact was ratified by California and Nevada in 1970 and 1971, respectively, but never ratified by the Congress. Even without such approval, the States have generally agreed to honor the Compact's allocations which are similar to the allocations in section 204 of Public Law 101-618 (incorporating modifications to address concerns of the United States and Pyramid Tribe), that would be implemented when the Truckee River Operating Agreement becomes effective.
- Public Law 101-618 was enacted by Congress in 1990 to provide the direction, the authorities, and the mechanisms for resolving a number of issues involving water resources and water rights in the Truckee River and Carson River basins, among other matters.
- To achieve these purposes, Public Law 101-618 directed, among other actions, negotiation of an operating agreement for Truckee River reservoirs.
- The Truckee River Operating Agreement was signed in 2008, and the federal rule was published in December 2008. TROA must be approved by the Orr Ditch Court before implementation occurs. The Interstate

Allocation between California and Nevada goes into effect when TROA becomes effective.

Water Rights

- Water rights in California and Nevada generally are administered by the State Water Resources Control Board and the Nevada State Engineer, respectively. California surface water rights may be held under riparian or appropriative rights or certain other doctrines.
- Riparian rights - result from the ownership of land bordering a surface water source (a stream, lake, or pond). As a class, these rights are senior to most appropriative rights, and riparian landowners may use natural flows directly for beneficial purposes on riparian lands without applying for a permit.

- Appropriative Rights - are acquired by putting surface water to beneficial use. Prior to 1914, appropriative rights could be claimed by simply diverting and using the water, posting a notice of appropriation at the point of diversion, and recording a copy of the notice with the County Recorder. Since 1914, the acquisition of appropriative rights has required an application through the State Water Resources Control Board, Division of Water Rights.

- Nevada water law is based on the appropriative rights doctrine with a statewide water rights system for administering both surface water and groundwater.

- With the exception of Lake Tahoe, Federal Reclamation projects in the Truckee River basin hold permits or licenses from California.
- In Nevada, Truckee River water rights are administered pursuant to the *Orr Ditch* decree.
- The Federal Water Master appointed by the *Orr Ditch* court oversees and coordinates reservoir operations and the delivery of water for *Orr Ditch* decree water rights, as well as maintains a water accounting system and issues daily reports of hydrologic data measurements for the Truckee River.
- The Nevada State Engineer has primary jurisdiction over applications to change the manner, purpose, or place of use of water rights subject to the *Orr Ditch* decree.

Current Operations

- The Truckee River is a highly regulated river system. Dams at the outlet of Lake Tahoe and on several major tributaries in the Truckee River basin create reservoirs that together can store about a million acre-feet of water.

- As described previously, a number of court decrees, agreements, and regulations govern day-to-day operations of these reservoirs, administered by the Federal Water Master for the *Orr Ditch* court.
- The reservoirs are operated to capture runoff as available when flow in the river is greater than that needed to serve downstream water rights in Nevada and to maintain prescribed streamflows, known as Floriston Rates, in the Truckee River measured at the Farad gauge near the California-Nevada State line.
- Floriston Rates provide water to serve hydroelectric power generation, M&I use in Truckee Meadows, streamflow, and agricultural water rights.
- In general, reservoir releases are made as necessary to meet dam safety or flood control requirements and to serve water rights when unregulated flow cannot be diverted to serve those rights.
- Minimum reservoir releases are maintained as specified in applicable agreements and the reservoir licenses and/or permits.

2014 Water Operations - *Drought Conditions*

- Drought maps published by several federal agencies show **severe to exceptional drought** conditions in western Nevada and the upper Sierra basins.

- The 3-month seasonal drought outlook map for western Nevada shows "Drought to persist or intensify."
- Current water supply conditions and key forecast information provided by the Water Master and U.S. Geological Survey or produced by RiverWare and other models for the coming months:
- Lake Tahoe's elevation is currently **1.16** feet above the natural rim (6223.0) and **may drop** below the rim in October 2014 (based on the RiverWare model run of 3/19).
- Lake Tahoe has an average evaporation loss of some 350,000 acre-feet per year, equivalent to about 34 inches of evaporation per year.
- The current Truckee River flow at Farad of **401 cfs** is meeting the Floriston Rate of 300 cfs.
- However, recent Truckee River flows have been below the Floriston Rate and model projections indicate that the Floriston rate may not be met beginning in September 2014 if the dry condition persists.
- The current Truckee Canal flow at Wadsworth is about **272 cfs.**
- Lahontan reservoir storage is now increasing, with a current storage of about **94,002 AF**.

- Boca Reservoir storage is currently at **11,603 AF**, which is below the security limit (31,700 AF). Our forecasts indicate that the pool will probably not exceed the security limit in 2014.

- Prosser Creek Reservoir storage is currently at **9,391 AF**.

- Stampede's storage is currently about **103,561 AF.**

- The current Truckee River flow at Nixon is about **143 cfs.**

Conclusion

Thank you for listening. My time is coming to a close. Are there any questions? You can always catch me later, if something comes to mind. Again, I am Louis Moore.

Thank you.

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