

Appendix B

# **Summary of Truckee River Operations**

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This appendix summarizes the relevant water right law, court decrees, agreements, and laws governing Truckee River operations, then provides an overview of reservoir operations.

## California Water Law

California operates under a dual system of water rights for surface water: *riparian rights*, which generally come with land bordering a water source, and *appropriative rights*, which are acquired by diverting and putting water to beneficial use. Since 1914, the State Water Resources Control Board (SWRCB) and its statutory predecessors have had exclusive jurisdiction over the granting and administration of appropriative rights. Unless water is diverted on the basis of a riparian or pre-1914 appropriative right, a person who wishes to acquire an appropriative water right must comply with statutory appropriation procedures that are administered by the SWRCB. Sierra Pacific Power Company (SPPC) has a pre-1914 water right that is not subject to the SWRCB's permitting procedures.

Regardless of the basis of water right, under article X, section 2, of the California Constitution and section 100 of the Water Code, all diversion and use of water in California is subject to reasonable use restrictions, and the waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion is prohibited. The SWRCB has a duty to ensure that all uses and diversions of water comply with these provisions. Adverse impacts on fish and wildlife are among the factors that provide a basis for determining that a water diversion may be unreasonable. The SWRCB also has a responsibility under the public trust doctrine to consider and protect public trust resources such as navigation, fishing, recreation, and fish and wildlife habitat where feasible.

## Court Decrees and Agreements

### Truckee River General Electric Decree (1915)

The Truckee River General Electric Decree resulted from a condemnation action by the U.S. Bureau of Reclamation (USBR) against the Truckee River General Electric Company (*United States v. Truckee River General Electric Company, et al.*, now designated No. S-643 (E.D. Cal.)). USBR, with claims to water stored in Lake Tahoe, could not guarantee delivery of the water without having control of the outlet dam, which was owned by the electric company. In the decree, the federal court granted USBR an easement to operate Lake Tahoe Dam and to use surrounding property owned by the power company. USBR was required to operate the dam to provide specified year-round flow rates, called *Floriston rates* (described below) for the benefit of the power company.

### Truckee River Agreement (1935)

Controversy over water rights and Lake Tahoe water elevations resulted in negotiation of the Truckee River Agreement between the United States, SPPC, Truckee-Carson Irrigation District (TCID), and the Washoe County Water Conservation District, and other Nevada interests. California was not a party to the agreement.

In part, the agreement confirmed the Floriston rates. The parties agreed to operate Lake Tahoe and Boca Reservoir to meet Floriston rates, which were modified to supply water for irrigation and municipal purposes, as well as hydropower generation.

Floriston rates are the rates of flow of the Truckee River at Floriston, California, as actually measured at the U.S. Geological Survey stream gaging station near Farad, California. Floriston rates currently vary between 300 cubic feet per second (cfs) and 500 cfs depending on Lake Tahoe elevation and season. (See tables B-1 and B-2.) The Floriston rates required that there be a mean flow of water in the Truckee River near Floriston of 500 cfs during the period from March 1 to September 30, and 400 cfs between October 1 and the last day of February (table B-1). This agreement required that if there was insufficient flow from the remaining portion of the Truckee River system to meet the Floriston rates, water would be released, if possible, from Lake Tahoe to maintain those specific rates of flow. These basic Floriston rates were modified in the Truckee River Agreement. The modified flows set forth therein are referred to as *reduced Floriston rates*. The reduced Floriston rates are dependent upon the level of Lake Tahoe and are as indicated in table B-2.

**Table B-1. Floriston Rates**

Truckee River Flow at Farad (cfs)	
March– September	October– February
500	400

**Table B-2. Reduced Floriston Rates**

Lake Tahoe Elevation	Truckee River Flow at Farad (cfs)			
	October	November– March	March	April– September
Less than 6,225.25 feet	400	300	300	500
Between 6,225.25 and 6,226.00 feet	400	350	350	500
More than 6,226.00 feet	400	400	500	500

If the Floriston rate flows set forth in the Truckee River Agreement are not being met by natural flow, water must be released from Lake Tahoe and/or Boca Reservoir to maintain the required rate of flow.

## Orr Ditch Decree (1944)

In 1913, the United States brought a quiet title action in federal court against Nevada parties to quantify the amount of water available for the Newlands Project. The 1944 final federal court decree establishes individual appropriative water rights and the amounts, place, and type of use and priority. The decree recognized SPPC’s water rights to divert Truckee River flows for the Farad Power Plant (summarized previously) and other hydroelectric power plants. The Orr Ditch Court also incorporated the Truckee River Agreement by reference.

## California-Nevada Interstate Compact (1971)

The California-Nevada Interstate Compact was an agreement between the States of Nevada and California that allocated water in the Truckee, Carson, and Walker Rivers between the 2 states. The compact also created an interstate water commission to resolve disputes. The compact was ratified by the 2 state legislatures, but despite several attempts, it was not ratified by Congress.

# Newlands Project Operating Criteria and Procedures

Reduction of Truckee River flows, resulting mostly from the Newlands Project, has caused fisheries in Pyramid Lake to deteriorate. The impacts of Newlands Project diversions on Pyramid Lake fisheries triggered protracted and repeated litigation by the Pyramid Lake Paiute Tribe (PLPT) and the federal government against the Newlands Project's operator, TCID, and users of Truckee River water in both Nevada and California.

The initial Operating Criteria and Procedures (OCAP) was adopted in 1967 by the Secretary of the Interior. This regulation set the Newlands Project's maximum annual diversions from both the Carson and Truckee Rivers at 406,000 acre-feet (af). A major purpose of the OCAP was to maximize the use of the Carson River waters to meet the requirements of the Newlands Project and conserve Truckee River flows to make as much water available to Pyramid Lake as possible.

The PLPT subsequently brought suit against the federal government, charging that the original OCAP was inadequate. In response to a court ruling that upheld the tribe's claim, OCAP was revised in 1973. The revised OCAP required the Newlands Project to increase its operating efficiency, significantly reducing project drainage and spills that once sustained the Lahontan Valley wetlands. Since 1973, USBR has issued an "interim" OCAP annually; in 1988, it proposed a final OCAP with a maximum annual diversion for both rivers. The final OCAP has been challenged by several interests, and subsequent litigation continues over diverse issues, such as acres of land allocated for irrigation, irrigation efficiencies, illegal diversion of water, and impacts on wetlands. OCAP will continue to influence overall Truckee River system water releases particularly until TROA is finalized.

## Public Law 101-618

In 1990 Congress enacted the Truckee-Carson-Pyramid Lake Water Rights Settlement Act, Public Law 101-618, to settle a number of outstanding disputes and litigation affecting the waters of the Truckee River. The act provides an interstate allocation of the waters of Lake Tahoe, the Truckee River, and the Carson River, and also settles outstanding litigation. More specifically, the purposes of the Truckee-Carson-Pyramid Lake Water Rights Settlement Act are to

- provide for the equitable apportionment of waters of the Truckee River, Carson River, and Lake Tahoe between the State of California and the State of Nevada;

- authorize modification to the purposes and operation of certain federal reclamation project facilities to provide benefits to fish and wildlife and to municipal, industrial, irrigation, and recreation users;
- authorize acquisition of water rights for fish and wildlife;
- encourage settlement of litigation and claims;
- fulfill federal trust obligations toward Native American tribes;
- fulfill the goals of the federal Endangered Species Act by promoting the enhancement and recovery of the Pyramid Lake fishery; and
- protect significant wetlands from further degradation and enhance the habitat of the many species of wildlife that depend on those wetlands.

For the act to be effective, an operating agreement, known as the Truckee River Operating Agreement (TROA), must be negotiated.

## Truckee River Operating Agreement

Parties to the ongoing TROA negotiations include the United States, the States of California and Nevada, the Truckee Meadows Water Authority (TMWA), and the PLPT. TROA will implement provisions of the Truckee-Carson-Pyramid Lake Water Rights Settlement Act, including the interstate allocations between California and Nevada; it will provide greater flexibility in the operation of Truckee River reservoirs, thereby achieving greater efficiency in water use in the basin. TROA will carry out the terms and conditions of the Preliminary Settlement Agreement between SPPC and PLPT, as ratified by the United States, which will allow changes in the exercise of SPPC's water rights to benefit threatened and endangered Pyramid Lake fishes and allow storage of water in federal reservoirs for the cities of Reno and Sparks during drought. Before TROA can be signed and the provisions of TROA implemented, it must be evaluated under state and federal environmental laws, approved by the *Orr Ditch* court, and be promulgated as a federal regulation.

## Reservoir Operations

System operations are governed primarily by the managing entities of 7 lakes and reservoirs—Lake Tahoe, Donner Lake, Prosser Creek Reservoir, Martis Creek Reservoir, Independence Lake, Stampede Reservoir, and Boca Reservoir. A total of 1,089,570 af of useable storage is available for managing water supplies. Of this total useable storage, a maximum of 65,000 af of joint-use space is used for flood control on a seasonal basis. As much as possible, the flood-control operations of Martis and Prosser Creeks and Stampede and Boca Reservoirs are coordinated to limit Truckee River flows at Reno to 6,000 cfs. The useable storage in these reservoirs is the key element to operations within the basin.

Estimates of the downstream demands, water content of the snowpack, and capacity of these facilities to store and control releases downstream govern operations in any particular year. The operations of these facilities are described below.

## Lake Tahoe

When water from Lake Tahoe is available, it is released to maintain Floriston rates as follows:

- Release from Lake Tahoe if Lake Tahoe elevation is more than 6,225.5 feet above mean sea level (msl).
- Release from Boca Reservoir if Lake Tahoe elevation is less than or equal to 6,225.5 feet above msl.

When the Floriston rate is met without Lake Tahoe releases, sufficient water is released to maintain but not exceed minimum flows of 50 cfs from October 1 to March 31 and 70 cfs from April 1 to September 30 below Lake Tahoe Dam. These minimum instream flow requirements are conditioned on a series of constraints. These constraints center primarily around a requirement that a similar amount of Prosser Creek water must be available for storage in Prosser Creek Reservoir or that uncommitted water in Prosser Creek Reservoir must be available. Water stored in Prosser Creek Reservoir specifically as a result of Lake Tahoe instream flow releases is known as *Tahoe Exchange Water*. The amount of water released from Lake Tahoe for these minimum instream flow requirements is credited in Prosser Creek and is released when needed to maintain Floriston rates.

## Donner Lake

The dam at Donner Lake is operated to prevent the water surface elevation from exceeding 5,935.8 feet above msl. If the lake elevation is less than 5,932.0 feet, no water can be released during June, July, and August. The elevation of Donner Lake must be lowered to 5,926.9 feet by November 15 to meet dam safety requirements. During normal operations, all inflow is released between November 15 and April 15. Donner Lake stores privately owned water, so releases are not used to meet Floriston rates.

## Martis Creek Reservoir

During normal operations, Martis Creek Reservoir is maintained at a minimum pool and all inflow is released. During flood periods, releases from the reservoir

do not exceed inflow when flows in the Truckee River below Reno exceed 6,000 cfs.

## Prosser Creek Reservoir

Prosser Creek Reservoir has to be drawn down to provide 20,000 af of storage space for flood control by November 1 of each year. Other than the flood control space requirement, up to 30,000 af of water can be stored in Prosser Reservoir from April 10 to August 10 if the Floriston rate and Truckee Canal demands are met and if Boca, Independence, and Stampede Reservoirs are full or at their flood control limits.

## Independence Lake

SPPC's pre-1914 right to store the first 3,000 af of water before the Floriston rate requirements are implemented were recently sold to TMWA. TMWA can store more water in Independence Lake only if Boca Reservoir is filled and the Floriston rate is met. It is not allowed to store more water unless Boca is full and the Floriston rates are met. TMWA does not release water stored in Independence to meet Floriston Rates.

## Stampede Reservoir

For flood control, Stampede Reservoir must be drawn down to have 22,000 af of storage space by November 1 of each year. A credit storage system has been established to more efficiently use water supplies to meet municipal and industrial demands as well as enhance the instream fishery; this system is currently in use and would likely be modified under TROA. Under this system, water stored can be credited for various purposes if all other water right demands are met. The credit-storage operation cannot adversely affect other water rights. Other than the flood control space requirement, water can be stored in Stampede Reservoir if Boca Reservoir and Independence Lake are filled and if the Floriston rate is met. Because it has junior water rights and because it does not have a water right permit for the full capacity of the reservoir, Stampede Reservoir seldom fills. Under the credit system, excess water in wet years may be stored and credited for future municipal and industrial uses or for future fishery demands.

Storage of water for future credit for municipal and industrial uses is provided for TMWA if the Floriston rate is met and if the power company is releasing water from Independence Lake. TMWA can store water to which it has a right but is not using at this time because full demand has not been reached. TMWA can use its water rights to store the first 12,000 af as firm water and the next 24,000 af as



nonfirm water. Any nonfirm water remaining by April 1 in a nondrought year will become fish-credit water. In drought years, the nonfirm water is stored for use by TMWA.

Court decisions dictate that Stampede Reservoir water be used for regulating flows for the endangered cui-ui (pronounced *kwee-wee*) fish. Releases for endangered species are coordinated between USBR and the U.S. Fish and Wildlife Service. These releases are not carried out every year, but are reserved for years when a large successful spawn is likely. Under the credit system, the PLPT can store water for future fishery needs when there is water flowing into Pyramid Lake in excess of the fishery needs.

## **Boca Reservoir**

For flood control, Boca Reservoir must have 8,000 af of storage space by November 1 of each year. If the Floriston rates are met, the reservoir can store up to 25,000 af before meeting TCID demand downstream. Boca Reservoir can store up to 40,000 af if the Floriston rates and district demand are met. Releases are made from the reservoir or Lake Tahoe to maintain the Floriston rates.