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**“SUNSET REVIEW” REPORT TO THE LEGISLATIVE COMMISSION  
BY THE  
MARLETTE LAKE WATER SYSTEM ADVISORY COMMITTEE**

April 1, 2002

**INTRODUCTION**

The Nevada Legislature's Marlette Lake Water System Advisory Committee is a permanent committee authorized by *Nevada Revised Statutes* 331.165. For the 1999-2000 interim, the Legislative Commission appointed three legislators (two Senators and one Assemblyman) and one nonvoting representative of the Legislative Counsel Bureau. Pursuant to statute, the other four members represent the Division of Wildlife, Division of State Parks, Division of Forestry, and Department of Administration.

**LEGISLATIVE MANDATE**

**NRS 331.165 Advisory committee: Creation; composition; officers; recommendations.**

1. The Marlette Lake water system advisory committee is hereby created to be composed of:

One member appointed by the administrator of the division of wildlife of the state department of conservation and natural resources.

- (a) One member appointed by the administrator of the division of state parks.
  - (b) Three members from the state legislature, including at least one member of the senate and one member of the assembly, appointed by the legislative commission.
  - (c) One member from the staff of the legislative counsel bureau appointed by the legislative commission. The member so appointed shall serve as a nonvoting member of the advisory committee.
  - (d) One member appointed by the state forester firewarden.
  - (e) One member appointed by the department of administration.
2. The voting members of the advisory committee shall select one of the legislative members of the advisory committee as chairman and one as vice chairman. After the initial selection of a chairman and vice chairman, each such officer serves a term of 2 years beginning on July 1 of each odd-numbered year. If a vacancy occurs in the chairmanship or vice chairmanship, the person appointed to succeed that officer shall serve for the remainder of the unexpired term.
3. The director of the legislative counsel bureau shall provide a secretary for the advisory committee.
4. Members of the advisory committee serve at the pleasure of their respective appointing authorities.
5. The advisory committee may make recommendations to the legislative commission, the interim finance committee, the department of administration, the state department of conservation and natural resources and the governor concerning any matters relating to the Marlette Lake water system or any part thereof.

## HISTORICAL BACKGROUND

Comprehensive discussions of the history of the Marlette Lake Water System are contained in Bulletin No. 79 of the Legislative Counsel Bureau – *The Marlette Lake Water System—A Report on the Feasibility and Desirability of its Retention*, February 1969 and Bulletin No. 01-20—*Continued Review of the Marlette Lake Water System*.

The Comstock Lode, one of the richest mining areas in the world, was discovered in 1859 on the eastern flank of Mount Davidson in the Virginia Range. The Virginia Mining District was the first mining district organized in western Utah Territory. The great mining town Virginia City was established nearby, with its post office dating from December 3, 1859. The nearby mining towns of Gold Hill (1859) and Silver City (1860) were soon established, and all three towns supported large populations in the 1860s, 1870s, and 1880s.

The provision of water to the mining towns on the Comstock posed a serious problem in early Nevada. Originally, several nearby springs and streams fed a series of tunnels, flumes, pipes, ditches, and reservoirs that were constructed. By the early 1870s, these supplies of water had become inadequate. As the area continued to grow, a decision was made by the Virginia and Gold Hill Water Company in August 1871 to develop a water system stretching over 21 miles to the west into the Carson Range, part of the Sierra Nevada Mountains. Surface water was plentiful in the Carson Range, but the key to the system was the inverted siphon, pressure pipeline designed by Hermann Schussler, a German-born engineer from San Francisco.

In August 1873, the first water from Hobart Creek in the Carson Range reached Virginia City and Gold Hill. Wild celebrations by residents of the area reverberated up and down the surrounding canyons and mountainsides. Originally, the system included: (1) a small diversion dam on upper Hobart Creek at Red House; (2) a 4.62-mile wooden flume to a tank that marked the start of the pipeline, at an elevation 351 feet higher than the outlet end of the pipeline in the Virginia Range; 3) a riveted, wrought iron, 11.5-inch, pressure pipeline extending seven miles, down to the lowest point on the system at Lakeview and back up to the high point in the Virginia Range; (4) a 4.04-mile flume to a point where Five-Mile Reservoir was constructed; (5) a 5.66-mile flume to tanks located above Virginia City and Gold Hill. The pipe for the system was made of iron plates bent to a cylindrical shape and then riveted. The pipe was fabricated in San Francisco and shipped by train to Lakeview. The pipe came in 26-foot sections and the thickness of each pipe segment varied depending on where engineering calculations showed differences in internal pressure. The first pipe segments were laid on June 11, 1873, and just six weeks later (July 25, 1873) the last section was in place. There were 1,524 joints in the pipeline as laid, and 1 million rivets and 35 tons of caulking lead were used in its installation.

In 1875, a second flume and pipeline was installed adjacent to the original system to double the original maximum production of 2.2 million gallons per day. However, the flow of water in summer months from the Hobart drainage dwindled to about 700,000 gallons per day.

In 1887, a third pressure pipe was installed in substantially the same location as the first two pipelines. When completed, the water system included three reservoirs, a total of 21 miles of pressure pipes, approximately 46 miles of covered box flume, several structures and one three-quarter mile tunnel. The total investment at that time was in excess of \$3.5 million.

With the decline of the Comstock in the years and decades to come, the fortunes of the water system suffered. In 1933, the water company's name was changed to the "Virginia City Water Company." By 1941, the company started to remove parts of the first (1873) and third (1887) pipelines to replace the flume between Five Mile Reservoir and Virginia City with pipes. Continued failures in the aging pipeline and a lack of funds caused the company to sell the water system to Curtiss-Wright Corporation in 1957. That corporation planned to use water from the system for a proposed missile test site on lands owned by that corporation in Storey County. However, the contract for the missile testing program was never approved. After making certain improvements to the system, Curtiss-Wright subsequently sold it to the Marlette Lake Company. In 1963, the Marlette Lake Company offered to sell the water system to the State of Nevada for \$1.65 million of the state's general obligation bonds. Included in the sale, which was approved by the 1963 Legislature, were water rights, over 5,300 acres of land, easements, pipelines, flumes, Red House, the caretaker's house at Lakeview (Lakeview House, 1873), and other water facilities.

For many years following those transactions, the State of Nevada was able to provide water to its Capitol Complex and maximum security prison. Subsequently, the State began selling water to Carson City, particularly during periods of peak demand.

### SELECTED COMMITTEE ACTIVITIES

Currently, most of the water provided by this system to Carson City, Gold Hill, Silver City and Virginia City comes only from Hobart Reservoir. This shallow body of water is not a reliable resource in dry years, and pumping is required from Marlette Lake over a drainage divide into Hobart. During periods of pumping, state personnel must monitor the diesel generator and pump on a 24-hour basis. Also, there are environmental considerations that must be addressed as this area is within the Lake Tahoe Basin.

A 2000 study commissioned by the Carson Water Subconservancy District evaluated the various alternatives to this supplemental pumping out of Marlette. The study pointed out that over the long-term the most cost effective and environmentally sensitive method of conveying water from Marlette Lake to Hobart Reservoir would be to bore a hole through

the drainage divide between these two bodies of water. The engineering costs are estimated at between \$4 million and \$6 million. However, the operating and maintenance costs after construction should be minimal. Also, the long-term environmental concerns are reduced under this option.

At its meeting of October 30, 2001, the Marlette Lake Water System Advisory Committee unanimously voted to endorse this concept and recommend that Federal funding be requested. It is important that an oversight body, made up of representatives of both Nevada's Legislative and Executive Branches be continued to guide important resource decisions in this geographical area. In addition to water resources, the area also is an important source of trout eggs for Nevada's fish hatcheries, forest resources and recreation activities ranging from mountain biking to cross country skiing.

#### **ACCOMPLISHMENTS DURING THE 1999-2000 INTERIM**

The Legislative Commission's Marlette Lake Water System Advisory Committee (*Nevada Revised Statutes* 331.165) submitted these proposals to the Governor of the State of Nevada and the members of the 71st Session of the Nevada Legislature for their consideration.

Among others, the committee recommended:

1. Continuation of the project of the Carson City Water Subconservancy District, including a cost benefit analysis and involvement of all stakeholders.
2. Cooperation of Washoe County and the United States Bureau of Land Management with Storey County officials on reinstatement of original right of way of the waterline from Lakeview to Virginia City.
3. Support for the commitment by the Department of Administration to perform additional metering of water transported and sold to Virginia City.