

Introduction.

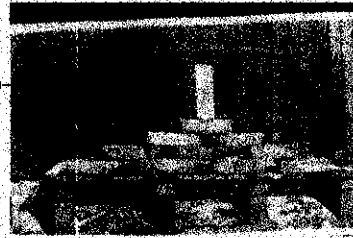
Jay Howard

EXHIBIT <u>11</u> Tahoe	Document consists of <u>12</u> pages
<input checked="" type="checkbox"/> Entire document provided.	
<input type="checkbox"/> Due to size limitations, pages ____ through ____ provided.	
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Meeting Date <u>12-8-03</u>	

PRESENTATION NOTES -
DEPARTMENT OF CONSERVATION AND NAT. RESOURCES
BUILDING AND GROUND

In The Beginning, It Was A Comstock History

Comstock gold and silver,
first discovered in 1859



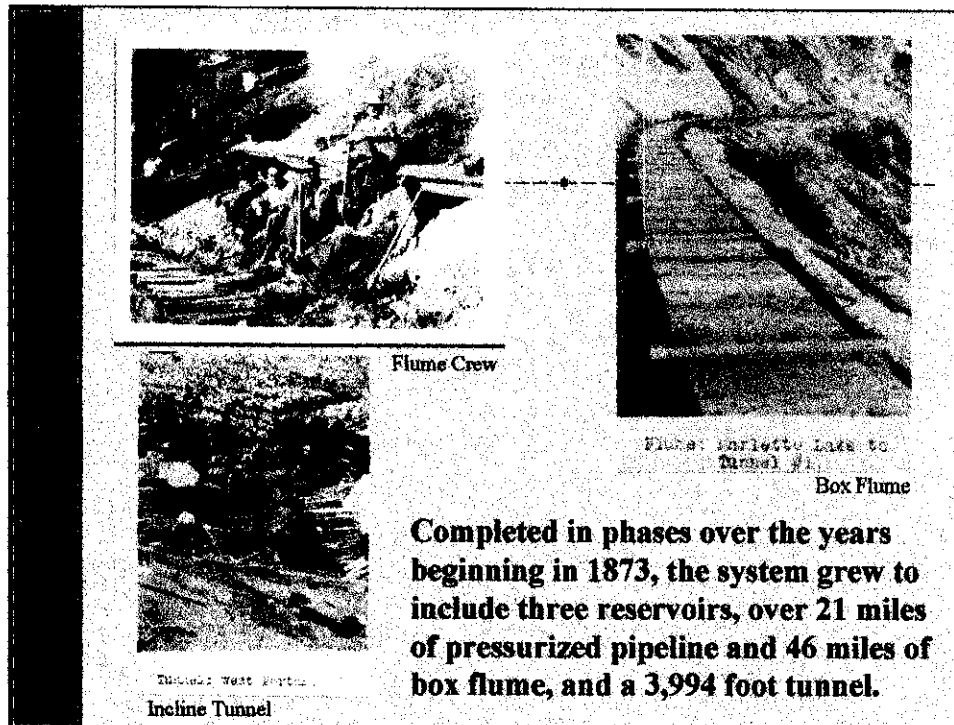
The water system was built by the
Virginia and Gold Hill Water Company,
designed by Hermann Schussler

Water and timber resources
were desperately needed by
bustling mining towns such as
Virginia City



- The Comstock Lode was first discovered in 1859, one of the richest mining areas in the world. Great mining towns were established including Virginia City, Silver City, and Gold Hill.
- Vast quantities of resources were needed, timber for mines and town structures and water for steam engine operations and the thousands of people that flocked to the area. Originally, the Comstock was fed by local springs and streams of the of the Virginia Range which soon proved to be inadequate for growth.
- The Virginia and Gold Hill Water Company decided to tap water resources from the Carson Range of the Sierra Nevada Mountains using the engineering expertise of Hermann Schussler. The first water from the Sierra reached the Comstock in 1873 to wild celebrations along the mining district.

Jay Howard



- This initial system included pipe and flume from a diversion dam on Hobart Creek, an inverted siphon to carry water through the Washoe depression, and additional pipe and flume to tanks above Virginia City and Gold Hill. The pipe sections were completed in just 6 weeks and carried 2.2 million gallons per day.

- Between 1875 and 1877 a second flume and pipeline was constructed to double the capacity of the original system. This expansion also included the raising of a small dam on Marlette Lake in 1876 and a flume to carry water from Marlette, through a 4,000 tunnel, to the Red House diversion dam.

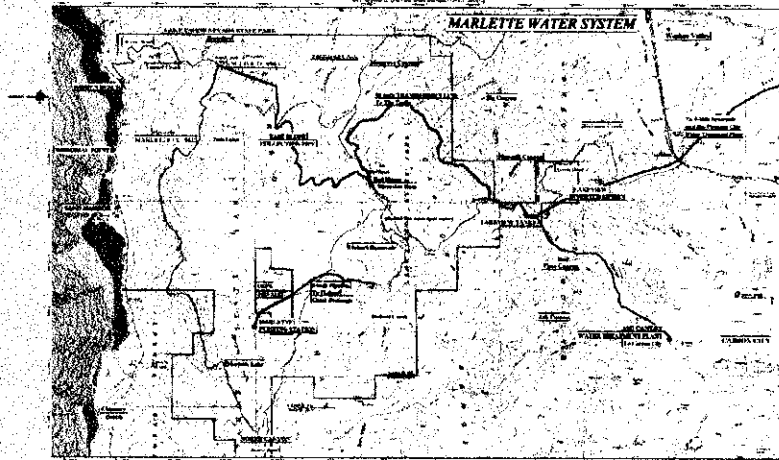
- By 1887 a third pressure pipe was added along with additional storage at Hobart Lake. Another flume was constructed to tap streams in the Third Creek area of Incline Village. The Comstock began to decline by the 1890's.

- In 1933 the water company's name changed to the Virginia City Water Company which was also an era of deterioration for the system.

- In 1957 the system was sold to the Curtis Wright Corporation who planned to use the water for a proposed missile test site in Storey County. That same year, the tunnel collapsed, ending the collection of water from Marlette Lake. The water system received many upgrades during this time including an increase of 15 feet to the Marlette dam in 1959, flume upgrades to aluminum pipe, and a failed attempt to reopen the tunnel.

- The water system was sold to the State of Nevada in 1963.

The water system today...



Collection from 7 catchments along the East Slope Basin, Hobart Lake, and a pumping operation in the Marlette Lake Basin supplies water to Storey County and Carson City for treatment and further distribution.

- Collection from 7 catchments along the East Slope Basin, Hobart Lake, and a pumping operation in the Marlette Lake Basin supplies water to Storey County and Carson City for treatment and further distribution.
- Although the tunnel remains unusable, water is still collected as seepage from the east portal.
- The temporary diesel pumping operation began in 1966 to move Marlette water over the divide to a drainage above Hobart Lake during drought years.
- Over the years, the system has been altered slightly and upgraded (Lakeview Fire, pipe repairs, etc.) in order to maintain water flows although it remains essentially the same as it was in the late 1800's.

Mike Leahy

Current State of the System



Meter house and tanks



**Positives –
component
replacement,
system
operation**



Cleanout



Catchment

**Negatives –
pipe
integrity,
manual
operation,
overall age**

Description of the current state of the water system including both positive and negative perspectives.

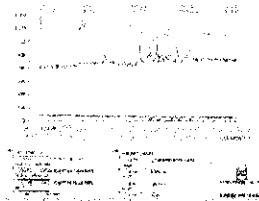
Mike Leahy

Water System Monitoring and Control

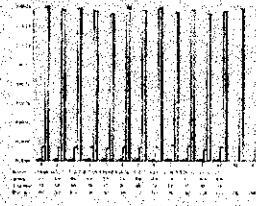


Mantua gate valve

Currently manually operated



**Computer / radio based
Master Monitoring and
Control Center phases**



Description of water control system, both manual operation and automated monitoring.

Mike Leahy

System Upgrade Needs

Proposed Marlette pumping upgrade

18 inch transmission line replacement

Continue remote control (SCADA system) upgrade

Access road maintenance



Pipeline on east slope of Carson Range.



Pipeline on east slope of Carson Range.

Discussion of upgrade needs and current proposals.

Mike Leahy

Environmental Issues



Diesel fuel storage tank



The pump at Marlette



Red House

Air quality

Noise quality

Historic preservation

Impacts to wildlife habitat

Threat of a contaminant spill

• Because the Marlette Water System is located in a wild and primitive portion of the Carson Range of the Sierra Nevada, certain environmental issues concerning its operation should be considered.

• While most of the system resides in Lake Tahoe Nevada State Park, Marlette Lake and the pumping operation is within the boundaries of the Lake Tahoe basin giving TRPA regulatory control over that portion.

• Due to the heightened environmental sensitivity of the Lake Tahoe Basin, impacts from the pumping operation to noise quality, air quality, and wildlife should be carefully controlled and limited as much as possible.

• A contaminant spill from the diesel pump engine, its oil tank, or the oil service truck could be devastating to Marlette Lake and the Tahoe watershed.

• Impacts outside the basin are equally important especially where sensitive wildlife habitat is concerned.

• Lastly, historic preservation of the system should be pursued. The Marlette Water System was nominated for the National Register of Historic Places in 1979 and was listed as a Historical District in 1992. Historic sites such as the Red House maintenance station and flume alignments are currently protected under Nevada State Park management. The Red House and Lakeview sites are the last remaining in tact structures out of 7 original maintenance stations. Historic site protection, especially those areas outside the park boundaries, should continue.

Department of Administration

Buildings and Grounds



**Marlette Water System
maintenance yard and office**



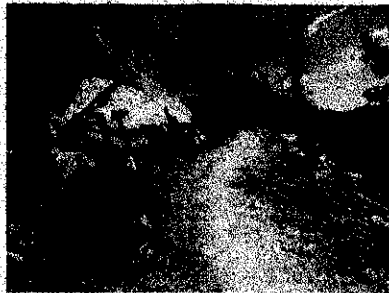
**Heavy equipment
associated with system
maintenance**

Description and comments concerning staff, maintenance area, and equipment.

Mike Leahy

**Department of Conservation and
Natural Resources**

Nevada State Parks



Flume Trail



North Canyon

Lake Tahoe Nevada State Park is 13,000 acres of open space offering water-based and primitive backcountry recreation. The backcountry unit of the park is managed as a natural area.

- The majority of the Marlette Water System is within the boundaries of Lake Tahoe Nevada State Park.
- The backcountry is managed as a natural area or an area set aside and
 - managed so as to conserve and perpetuate its scenic and ecological qualities while allowing for appropriate public use.
- The backcountry, used by thousands of visitors every year, is popular for
 - hiking, mountain biking, and equestrian use. In fact, most of the old water system maintenance roads are now popular user trails.
- The historic route of the Marlette Lake flume is now the park's most popular trail. It has been voted as one of the top ten rides in the nation by mountain bike publications.
 -
- North Canyon serves as an important access portal from the Spooner Lake Day Use Area to Marlette Lake and the rest of the backcountry.
 -
- State Parks does not allow vehicles in the backcountry. We do manages a
 - backcountry permit system for vehicles to include government agencies, private landowners, scientific researchers, etc.

Nevada Division of Forestry

Nevada Division of Lands

Forestry - Forest health and fuels reduction activities, vegetation management, and sensitive/endangered plants



Lands – Holds title to the State of Nevada properties of the Marlette Water System, land acquisition, and coordination of resource programs such as the EIP.

- NDF is responsible for the highly important work of forest health and wildfire fuels reduction. Although an enormous amount of work has been accomplished within the basin due to the EIP, out of basin portions of the park are desperately in need of fuels reduction. Nevada State Parks is currently working with NDF on a fuels reduction project using a wildland urban interface grant to fund field work outside the basin.
- NDF is also responsible for any vegetation management issues as well as rare and endangered plants and invasive weeds on state property.
- State Lands holds title to all the State Of Nevada properties of the Marlette Water System and is responsible for the acquiring of any new lands important to the system.
- Lands is also responsible for important grant programs such as Lake Tahoe License Plate and of Question One bond monies and has been a key player in the coordination of the Lake Tahoe Environmental Improvement Program.

Questions...



Marlette Lake

Answers

Hobart Lake



Thank you