

REPORT ON THE CONTINUATION STUDY
OF THE
MARLETTE LAKE WATER SYSTEM

Legislative Commission of the
Legislative Counsel Bureau
State of Nevada

March 1971

BULLETIN No. 98

REPORT ON THE CONTINUATION STUDY

OF THE

MARLETTE LAKE WATER SYSTEM

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Assembly Concurrent Resolution No. 28--(1969)

ASSEMBLY CONCURRENT RESOLUTION--Directing the legislative commission to continue its study of the Marlette Lake water system.

WHEREAS, The legislature by Senate Concurrent Resolution No. 21 of the 54th session directed the legislative commission to study the feasibility and desirability of retaining the Marlette Lake water system; and

WHEREAS, The legislative commission conducted this study through a subcommittee and has recommended several courses of action, some of which are mutually alternative; and

WHEREAS, Further study and guidance, after the choice among these alternatives, is desirable; now, therefore, be it

RESOLVED BY THE ASSEMBLY OF THE STATE OF NEVADA, THE SENATE CONCURRING, That the legislative commission is directed to continue its study and retain its subcommittee for the purpose of reporting to the 56th session of the legislature its advice on the continuing administration or disposition of the several elements of the Marlette Lake water system.

REPORT OF THE LEGISLATIVE COMMISSION

TO THE MEMBERS OF THE 56TH SESSION OF THE NEVADA LEGISLATURE:

The Legislative Commission appointed a subcommittee to continue the study of the Marlette Lake water system for the purpose of reporting to the 56th session of the legislature its advice on the continuing administration or disposition of the several elements of the system pursuant to the direction of Assembly Concurrent Resolution No. 28 (1969). Members of the subcommittee were:

Assemblyman Lawrence E. Jacobsen
(Chairman)
Minden, Nevada

Senator M. J. Christensen
Las Vegas, Nevada

Mr. Eric Cronkhite, Administrator
Division of State Parks
State Department of Conservation
and Natural Resources
Carson City, Nevada

Mr. George Gottschalk
Carson City, Nevada

Mr. Frank W. Groves, Director
Nevada Department of Fish and Game
Reno, Nevada

Assemblyman Norman D. Glaser
Halleck, Nevada

Assemblyman Douglas J. Webb
Sparks, Nevada

Mr. Cyrus L. Meacham
Deputy Chief
Buildings and Grounds Division
Department of Administration
Carson City, Nevada

Mr. Walter G. Reid
Virginia City, Nevada

Mr. Roland D. Westergard
State Engineer
Department of Conservation and
Natural Resources
Carson City, Nevada

The Legislative Commission accepts the subcommittee's report and thanks the members of the subcommittee for their efforts in making the required investigation and report.

The report is transmitted to the members of the 1971 legislature for their consideration and appropriate action.

Respectfully submitted,

Legislative Commission
State of Nevada

Carson City, Nevada
March 1971

LEGISLATIVE COMMISSION

B. Mahlon Brown
Carl F. Dodge
John Fransway
James I. Gibson
Warren L. Monroe
C. Clifton Young

Keith Ashworth
Lawrence E. Jacobsen
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William D. Swackhamer
Roy L. Torvinen

REPORT TO THE LEGISLATIVE COMMISSION FROM THE SUBCOMMITTEE
FOR STUDY OF THE MARLETTE LAKE WATER SYSTEM

I. Introduction

The 1969 legislature enacted chapter 496, Statutes of Nevada 1969, which, among other things, provided separately for the administration of land and for the administration, sale or lease of the water supply system. Moneys were appropriated to the department of administration to cause an appraisal to be made of the system, and the division of state parks of the state department of conservation and natural resources was provided funds to acquire necessary engineering and architectural services and do the necessary planning for the picnic area and visitors' center at Lakeview Hill. Field activities of the subcommittee were limited during 1969-1970 although the subcommittee did visit Marlette Lake in a snowstorm on June 8, 1970, to witness egg-taking procedures conducted by representatives of the Nevada department of fish and game. A general meeting was held in Carson City on November 16, 1970, where the subcommittee members presented individual reports and the recommendations hereafter made were evolved.

II. Department of Administration Activities

(a) Appraisal of the system.

On September 10, 1969, the department of administration executed a contract with Creegan and d'Angelo for an appraisal of the system. The appraisal report was submitted to the department of administration on December 31, 1969, and a copy is attached to this report as Exhibit A. Although the appraisal report was given wide distribution by the director of the department of administration no indications were received by him of any interest in purchasing the system. [Carson City's interest is discussed in VI infra of this report.]

(b) Operation of the system (1969-1970).

In May 1969, the director of the department of administration on behalf of the state executed a contract to sell water from the system with a group which had purchased land near the Lakeview House. The term of the contract is 3 years with a renewal option. A copy of the contract is attached to this report as Exhibit B.

During the 1970 summer water season it was not necessary to use the auxiliary pumps to utilize the water in Marlette Lake. Requests for water from the Carson City Water Company were filled from normal runoff and water in the Hobart Reservoir. Some water is still being lost from the tunnel. During the period covered by this report there was one incident of diesel fuel pollution of Marlette Lake caused by a faulty pump at the pumping station on the north end of the lake. The then chief of the buildings and grounds division of the department of administration recommends the desirability of operating the pumping station by gas or electricity instead of diesel fuel.

III. Nevada Department of Fish and Game Activities

The primary activities of the Nevada department of fish and game at the Marlette Lake water system during the past year revolved around the spawn-taking operation at Marlette Lake. The 1970 cutthroat trout egg collection was the largest on record. Approximately 950,000 eggs were taken and over 2,500 fish were counted through the trap.

The road into the lake was opened on May 26 and the first run of fish was noted on June 3. In a snowstorm June 8, the first egg take was accomplished with legislators Jacobsen, Gibson, Christensen and Glaser in attendance. The operation was completed on June 20 and the trap and barriers were removed from the tributary streams, the trapping site cleaned up and the supplies and equipment returned to Washoe Station.

The importance of this brood stock of cutthroat trout to the fisheries program of the Nevada department of fish and game continues to become more apparent. During 1970 because of the large egg take, it was possible to have sufficient eggs to stock the Verdi Hatchery and send a supply to the Gallagher Hatchery where the fish were raised to fingerling size and planted into various waters of eastern Nevada. In addition, eggs from this source are showing an adaptation to fish hatchery rearing by an apparent development of immunity to some of the fish hatchery diseases. Brook trout are being "phased out" because of their lack of adaptability to mineralized waters; but a total of 7,020 Walker Lake strain cutthroat representing 842 pounds were stocked in Marlette Lake during the period.

IV. Nevada State Park System: Recreational Use of Marlette Lake

(a) Land use plan.

In developing a land use plan for the Lake Tahoe-Nevada state park, it is infeasible and unrealistic to consider the Marlette Lake properties as a separate entity from adjacent park lands.

The land use plan, completed and released on November 1, 1970, is a plan outlining recreational use for the entire complex. The land use plan did take into very careful consideration the primary purpose for which the 1963 legislature authorized funds for purchase of this property. The plan recognized the preservation and development of a water supply and the protection of surrounding watershed land as the primary purpose for purchase. It also recognized that in the ensuing years recreation, scenic preservation and the development and maintenance of Marlette Lake as a fish-brooding pond are now considered significant secondary functions to the original intent of use at the time of purchase.

The land use plan recommends the Marlette Lake properties be preserved as a scenic high country natural area, open to the public, but on a nonmotorized basis.

The plan calls for a system of trails utilizing mainly existing roads for hiking, horseback trail riding, snowshoeing, ski touring and limited skimobiling. The plan

also recommends that on several selected sites, a system of walk-in campgrounds be established, which would be primitive in development.

The present system of roads in the Marlette Lake country would be maintained for service vehicles only, and, as mentioned above, for use as trails.

(b) Management plan.

Prior to opening up the back country to public use, a management plan will be developed outlining land management requirements for wildlife management, fishing and hunting, zoning system, camping regulations, campfires, use of trails by foot, horse and skimobiles and ranger patrol.

A portion of the management plan will be completed by the spring of 1971, and only if sufficient ranger patrol is available will the area be opened up for general interior use.

Presently, the policy is not to permit campfires of any type within the Marlette Lake property, and use is on a permit basis only for vehicles. Vehicles will be completely eliminated, other than those of service nature, when the Nevada state park system has the capacity to enforce such use from this area.

The reasoning behind the elimination of vehicular use in the back country of the Lake Tahoe-Nevada state park, which includes the Marlette Lake properties, is that the back country to be used by the public must be on a non-discriminatory basis of being open to anyone who cares to go into the area, if it is to be opened at all. Presently, the use is limited by a policy of discouraging back country use and, historically, by locked gates, private ownership and the lack of public pressure.

Once the area is opened and it becomes general public knowledge, vehicular use would become so overwhelming that it would destroy the very thing the state is trying to preserve, and that is a quiet, scenic undisturbed landscape for present and future generations to enjoy.

Presently, the division of forestry of the state department of conservation and natural resources issues permits for back country use on the Marlette Lake properties. During the fire season, daily patrols are made by personnel of the Nevada state park system, the division of forestry and, the Nevada department of fish and game.

(c) Water system development and operation.

One serious problem, which has not yet been considered but is of utmost importance in the preservation of the Marlette Lake properties, concerns standards, procedures and policies regarding development, operation and maintenance of the water system within the Marlette Lake properties. Presently, any improvements within these categories are carried out only in regard to getting

water from its source to its point of use. There are visual instances where the landscape has been unnecessarily desecrated, and erosive forces have set in, further destroying the land. The healing process is slow in these granite-type soils, and it is therefore of great importance that all excavation, earthmoving, road construction and pipeline development be done under the strictest requirements.

There have been no conferences to date with the buildings and grounds division of the department of administration regarding this position of operating the Marlette Lake water system. If the Nevada state park system is to maintain a reasonable standard of protecting the environment, then reasonable standards must be adopted for the water system.

(d) Lakeview House.

Preliminary first-draft plans are now in the development stage for the Lakeview House. The 1969 legislature directed the Nevada state park system to determine the feasibility and to develop plans for the preservation of the Lakeview House as an interpretive center and recreation site.

The plan is being developed by three consultants: Russ Grater, Boulder City, former naturalist with the National Park Service; Edward Parsons, architect, Reno; and Richard Wood, landscape architect, Reno.

The complete plan will encompass four major headings:

1. Interpretation;
2. Exhibit features;
3. Restoration; and
4. Recreation.

A schedule of cost estimates will be included for each phase of the plan.

V. Storey County and Virginia City

Nothing has transpired with relation to the system in either Storey County or Virginia City during the past year. There is a subdivision at some distance from Virginia City which would like to have used Marlette water, but it was found to be too costly a project. There is a growing need for water in Virginia City as the population expands. No problems have been encountered at Five-Mile Reservoir.

VI. Carson City's Interest in the System

On November 9, 1970, the manager of Carson City wrote the legislative counsel:

Carson City wishes to relate to your office our position regarding chapter 496, Statutes of Nevada 1969. Section 4 of that act authorizes sale of the Marlette Lake water system to Carson City "for a price not less than its appraised value." It is our position that this wording provides absolutely no flexibility on your part nor on ours regarding the establishment of an

equitable price. We have available to us the appraisal made for you and we would appreciate the opportunity of discussing this appraisal, but as I understand the wording of the statute, such a discussion would be meaningless since the wording is silent as to provisions for negotiation.

I have discussed this with [the director of the department of administration] and have told him that should we be successful in negotiating purchase of the Carson Water Company, we would at that time be interested in further discussing acquisition of the Marlette system. We feel that if a proper purchase price may be arrived at, the water system of Carson City would best be administered by a local public agency. For this reason we hold a continuing interest in acquisition of the Marlette system but we feel that our hands are tied by the law as to negotiating for a reasonable price and we feel the legislative subcommittee should consider this problem and propose recommendations which would permit the State of Nevada and Carson City to enter into business-like negotiations for the purpose of establishing a mutually agreeable and reasonable price.

We would appreciate your relating our thoughts to the subcommittee so that they will become familiar with the problem we feel is present because of the existing wording in the law.

The Carson City manager enlarged upon the contents of his letter when at a meeting of the subcommittee held November 16, 1970, he said:

Any negotiations with the state in the future are contingent on whether we can purchase the Carson Water Company or not. We are not at that point yet where we can buy their company. We have received price information and agreement from the company. This would be contingent upon the people passing the bonds. Meanwhile, we have hired a water rate expert to set up an operational program for us if we did have the water company. Based on that we will be able to arrive at a water rate structure. * * * The big thing the people are concerned with is the water rate to individuals. Hopefully, we will have the election sometime late this winter or early spring if our water rate estimates are feasible. I think they are.

The state system would not be of any use to Carson City unless we had the water company. If we had the water company, then we would be interested in the state system. We feel the law as presently written is restrictive. There is no negotiation room. We want to negotiate down. We can't even question the [state] appraisal. It is our feeling that this is your price or more. We feel there are many reasons why the state should negotiate with us. We would be able to arrive at a price substantially less than this because not only will Carson City be benefited by acquisition of the system, the state will also. The state will certainly benefit in the future. It will have no capital expenditure money out on this system. They will if they keep it. We feel that the system in the city's hands--the capital improvements--should be taken into consideration. It seems

like the law at present ties all our hands. We intend to come to the legislature this year in hopes the law can be amended to permit negotiation. If it is possible, this subcommittee [should discuss] this aspect and perhaps come up with a recommendation that the law be changed to allow us room to negotiate.

The Carson City manager noted that he hoped bond moneys would not have to be used to purchase the state system but that payment could be made from revenues if the water company is acquired. In the bond issue would be moneys to develop Hobart Reservoir so that the waterline from there to the state system can be improved. Carson City has not had an appraisal made of the state system for its own use in view of the limitations in the law. If negotiation is allowed, then it would be to the advantage of Carson City to get its own appraisal for comparison purposes. The appraisal would have to be an independent appraisal, but the statute should not require it.

VII. Recommendations of the Subcommittee

Notwithstanding the minority objections of former Senator M. J. Christensen, who believes the state should own and control the system and also acquire the Carson City Water Company, the subcommittee makes the following recommendations:

1. Interested agencies (department of administration, Nevada department of fish and game and Nevada state parks system) should meet twice a year to exchange information on mutual problems and their solutions.
2. Sufficient appropriations should be made by the 56th legislative session to regulatory agencies to allow for adequate security and control, including funds for fencing the Lakeview property for security purposes, and funds to pay for adequate signing of the entire area for regulatory purposes.
3. Authority should be granted for negotiation of the sale or lease of the state system to Carson City and Virginia City to be handled by the department of administration with the approval of the interim finance committee of the legislative counsel bureau.
4. An advisory committee should be created by statute, composed of representatives of the Nevada department of fish and game, the division of parks of the state department of conservation and natural resources and the department of administration, and two legislators appointed by the legislative commission. In addition, the governor or the director of the department of administration would appoint a representative from Carson City and one from Virginia City. This advisory committee should be effective in advising the department of administration and the interim finance committee of the legislative counsel bureau on sale negotiations, but its recommendations would not be binding. Its interest could also cover the areas of management and land use.

Suggested legislation to effect recommendations 3 and 4 are attached to this report as Exhibit C.

REPORT OF APPRAISAL
OF THE
MARLETTE LAKE WATER SYSTEM
AS OF OCTOBER 31, 1969

Prepared By

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December 31, 1969

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December 31, 1969

Mr. Howard E. Barrett, Director
Department of Administration
State of Nevada
Carson City, Nevada

Subject: Appraisal of the Marlette Lake Water System

Dear Mr. Barrett:

Pursuant to our agreement with the State of Nevada, dated September 10, 1969, we have appraised the Marlette Lake Water System as of October 31, 1969. Our appraisal report is submitted herewith.

Besides dividing the overall appraisal into the three major parts required by Assembly Bill No. 569, we have further divided the First Part (facilities above the siphon inlet tanks) into Western and Eastern facilities, because the Carson Range represents a natural divide between them, and for other reasons more fully explained in Section IV of the report. For each of the major parts we have separately appraised the physical facilities, easements and water rights. Sections I and II of the report outline essential background information, and Sections III and IV discuss the valuation of physical works, easements and water rights. Further supporting information is presented in the Appendix.

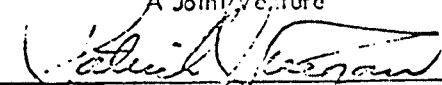
Estimated replacement costs, where used, were based on prices currently in effect in this territory during the time of the appraisal. Depreciation or present condition were determined by actual inspection of the property insofar as practicable. All data was reviewed in the light of information gained through experience in designing and supervising similar work, inspecting similar facilities and knowledge of useful lives of similar items of property under similar service conditions.

It is our considered judgment that the fair and equitable value of the Marlette Lake Water System consisting of physical works, easements, and water rights, but not including land, is \$1,420,842.


Respectfully submitted,

CREEGAN AND D'ANGELO, Consulting Engineers and
CHRISTOPH J. ALTMUELLER, Consulting Engineer,
A Joint Venture

By


Patrick J. Cregan

By


Christoph J. Altmueller

CJA/njg

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SUMMARY OF APPRAISAL
OF THE
MARLETTE LAKE WATER SYSTEM
AS OF OCTOBER 31, 1969

PART I - SYSTEM ABOVE AND INCLUDING THE SIPHON INLET TANKS

(WESTERN FACILITIES)

A. PHYSICAL FACILITIES:			
1. Marlette Lake	\$119,040		
2. Transmission Line, Marlette Dam to Tunnel	10,290		
3. Incline Tunnel	187,358		
4. Marlette Pump Station	17,833		
5. Transmission Line, Marlette Lake to Hobart Lake	22,963		
Subtotal	\$357,484		
Engineering, administrative, legal and fiscal 10%	35,748		
Total Physical Facilities		\$393,232	
B. EASEMENTS			2,132
C. WATER RIGHTS			1
TOTAL WESTERN FACILITIES			\$395,365

(EASTERN FACILITIES)

A. PHYSICAL FACILITIES:			
1. Transmission Line, Tunnel to Red House	\$ 79,804		
2. Hobart Lake	20,625		
3. Red House Facilities	6,234		
4. Transmission Line, Red House to Tanks	217,507		
5. Siphon Inlet Tanks	7,920		
Subtotal	\$332,090		
Engineering, administrative, legal and fiscal 10%	33,209		
Total Physical Facilities		\$365,299	
B. EASEMENTS			350
C. WATER RIGHTS			1
TOTAL EASTERN FACILITIES			\$365,650
GRAND TOTAL - PART I			\$761,015

PART II - SYSTEM BELOW SIPHON INLET TANKS, SERVING PARTS OF CARSON CITY

A. PHYSICAL FACILITIES:			
1.	Transmission Line, Tanks to Lower Reservoir	\$ 76,887	
2.	Vicee Canyon Facilities	3,972	
3.	Dead Horse Canyon Facilities	2,625	
4.	Ash Canyon Facilities	980	
5.	Upper Reservoir	24,240	
6.	V. & T. Reservoir	1,140	
7.	Sand Filters	1,340	
8.	Lower Reservoir	19,052	
9.	Distribution System and Services	124,937	
10.	Fire Hydrants	4,020	
11.	Well at Children's Home	6,505	
	Subtotal	<u>\$265,698</u>	
	Engineering, administrative, legal and fiscal 10%	26,569	
	Total Physical Facilities		\$ 292,267
B.	EASEMENTS		29,480
C.	WATER RIGHTS		<u>1</u>
	TOTAL PART II		\$ 321,748

PART III - SYSTEM BELOW SIPHON INLET TANKS, SERVING VIRGINIA CITY, GOLD HILL AND SILVER CITY, UP TO AND INCLUDING FIVE MILE RESERVOIR

A. PHYSICAL FACILITIES:			
1.	Siphon across Washoe Valley	\$236,085	
2.	Transmission Line, Siphon to Five Mile Reservoir	31,875	
3.	Five Mile Reservoir	12,630	
	Subtotal	<u>\$280,590</u>	
	Engineering, administrative, legal and fiscal 10%	28,059	
	Total Physical Facilities		\$ 308,649
B.	EASEMENTS		29,430
C.	WATER RIGHTS		<u>None</u>
	TOTAL PART III		\$ 338,079

SUMMARY

PART I - System Above and Including the Siphon Inlet Tanks			
	Western Facilities	\$395,363	
	Eastern Facilities	\$365,650	\$ 761,015
PART II - System Below Siphon Inlet Tanks, Serving Parts of Carson City			321,748
PART III - System Below Siphon Inlet Tanks, Serving Virginia City, Gold Hill and Silver City, Up to and Including Five Mile Reservoir			<u>338,079</u>
TOTAL APPRAISED FAIR AND EQUITABLE VALUE OF THE MARLETTE LAKE WATER SYSTEM			<u>\$1,420,842</u>

SECTION I
INTRODUCTION

1. Reason for the Appraisal

The Marlette Lake Water System is owned by the State of Nevada, and is administered and operated by the Buildings and Grounds Division of the Department of Administration. In 1967 the Nevada Legislature directed the Legislative Commission to make a study of the desirability of its retention by the State. (Senate Concurrent Resolution No. 21, 1967).

The Legislative Commission appointed a subcommittee to undertake a complete study of the system pursuant to the direction of Senate Concurrent Resolution No. 21, 1967. The subcommittee's report, entitled, "The Marlette Lake Water System, a Report on the Feasibility and Desirability of its Retention", dated February 1969, was submitted to the 55th Session of the Nevada Legislature in 1969.

The subcommittee concluded that it may be advantageous for the State to discontinue ownership of the system, and recommended the initiation of steps toward its possible future sale. In accordance with the subcommittee's recommendations contained in the report, the Legislature adopted Assembly Bill No. 568, which in Section III directs the Department of Administration to cause an appraisal of the Marlette Lake Water System to be made by a competent and disinterested appraiser. It further directs that the appraisal be broken down to establish the separate values of the three major parts of the system; namely:

- a. Facilities above and including the siphon inlet tanks.
- b. Facilities below the siphon inlet tanks, serving parts of Carson City.
- c. Facilities below the siphon inlet tanks, serving Virginia City, Gold Hill and Silver City - up to and including the Five Mile Reservoir.

In September 1969, the Department of Administration appointed Creegan and D'Angelo, Consulting Engineers, and Christoph J. Altemueller, Consulting Engineer, a Joint Venture, of Stateline, Nevada, as its appraiser to accomplish the valuation of the Marlette Lake Water System.

2. Description of the System

The Marlette Lake Water System presently supplies water to the Capitol Complex of the State of Nevada and other State owned facilities within Carson City, as well as to the urban area

of Virginia City, Gold, Hill and Silver City. Also, water from the system is used to supplement the demand of the Carson Water Company, and to furnish stock water to a number of adjacent ranches.

The system derives its water principally from both the western and eastern slopes of the Carson Range, located between Lake Tahoe and the Eagle and Washoe Valleys. One major branch conveys water to the Carson City area, the other supplies Virginia City, Gold Hill and Silver City through the historic Virginia City Siphon. The system comprises a series of reservoirs and transmission facilities covering nearly 40 miles of territory. It is impressive in concept even when viewed in the light of present day technology. Its historical significance is unique within the State of Nevada and the West.

Exhibit No. 1 is an overall facilities map, which identifies the principal features of the system. It is located in the file pocket in the back cover of this report.

SECTION II

PROCEDURE

1. General

The entire appraisal of the Marlette Lake Water System was accomplished by Patrick J. Creegan, licensed Civil Engineer and Water Rights Surveyor in the State of Nevada, and Christoph J. Altemueller, licensed Civil Engineer in the State of Nevada. The term "Appraiser" as used in this report means either Mr. Creegan or Mr. Altemueller, or any person working in their employ and under their direct supervision.

During preliminary consultations with the Department of Administration, the appraiser was given the following basic instructions:

- a. To prepare a separate appraisal for each of the three major parts of the system, as identified in Assembly Bill No. 568.
- b. To exclude from the appraisal all State owned lands upon which portions of the system are located.
- c. To inventory and appraise all physical facilities of the system.
- d. To include in the appraisal all easements and water rights appertaining to the system.

The limits of the physical system appraised include all facilities from the respective water sources up to, and including, the Five Mile Reservoir on the Virginia City branch, and to the westerly property line of the State Prison on the Carson City branch. Facilities connected to the system beyond these points are not included. Further, State owned facilities connected at Lakeview are not included in the appraisal.

2. Compilation of the Inventory

An inventory of the physical facilities comprising the system was prepared. In compiling this inventory the appraiser used existing maps and records of the system, the 1969 Legislative Report, the 1964 report by Walter G. Reid, Consulting Engineer, and information furnished by staff members of the Buildings and Grounds Division. Where necessary to verify or supplement existing information, actual field measurements of pipe lines and other facilities were made by the appraiser.

The inventory includes only those physical facilities which are now in use or which could be placed into operation within the overall system. Not included are abandoned buried pipe lines, stockpiled construction materials, and construction or maintenance equipment.

The inventory was reviewed and checked by the Department of Administration, and upon approval was adopted as the quantitative basis for the appraisal of all physical facilities.

3. Inspection of the Physical Works

A complete and detailed inspection of the entire Marlette Lake Water System was made by the appraiser, to determine the actual condition of individual facilities such as dams, reservoirs, tanks, pumping installations, pipe lines, etc. A separate inspection report was prepared in the field for each inspected facility, noting its observed condition, serviceability, remaining useful life, and overall percentage of depreciation.

A total of 31 exterior pipe inspections were made on exposed sections of lines and at additional exploratory excavations throughout the system. The interior condition of pipes was checked on eight representative pipe sections which could be positively identified as to respective location and service exposure within the system. Condition of the pipe lines was determined through observation of pipe surfaces, and through actual measurement of depth, size, and extent of corrosion pitting in the pipe walls.

4. Determination of Easements

A file containing descriptions of existing easements was furnished the appraiser by the Department of Administration. This information was supplemented through a check of available information in the State Registrar's office and through further research in the Carson City Engineer's office and the Recorder's offices in Carson City, and Washoe and Storey Counties.

Although the appraiser did not complete an exhaustive title search on all affected property parcels, it is concluded that the State generally enjoys the benefit of recorded easements, special use permits, installation and maintenance rights, and rights of access for the operation and maintenance of its facilities where they are located on other than State owned lands.

There are no recorded easements for pipe lines in Carson City streets outside the Capitol complex. However, the State's right to use and maintain its lines within these streets has been established through continued use, and the value of the system is not considered impaired because of the absence of recorded easements in these areas.

5. Determination of Water Rights

The water rights belonging to the Marlette Lake Water System are various surface waters and springs on the western and eastern slopes of the Carson Range, and the groundwater withdrawn from the Children's Home well in the Carson City urban area.

The Legislative Report identifies these various rights and substantially describes the status and degree of perfection of the right on the various sources. Further inquiries and investigations made by the appraiser served to verify and supplement that information. Table II-1 is a tabulation of the water rights belonging to the Marlette Lake Water System.

TABLE II-1
MARLETTE LAKE SYSTEM WATER RIGHTS

SOURCE	AMOUNT	STATUS
Marlette Lake	3000 AF/year for municipal domestic use	Permit No. 24877 issued, datum for vested right filed
Incline Tunnel	3.0 CFS for municipal and domestic use	Permit No. 24876 issued, and claim for vested right filed.
Lower Rose Spring (Vicee Canyon)	2.0 CFS for irrigation and domestic use	Permit No. 8807 issued. Appropriated right
Upper Rose Spring (Vicee Canyon)	1.0 CFS for irrigation and domestic use	Permit No. 8808 issued. Appropriated right
Upper Rose Spring (Vicee Canyon)	1.0 CFS for general domestic use	Permit No. 15973 issued. Appropriated right
Upper Franktown Tributaries above Red House Diversion	10.0 CFS for commercial, industrial and domestic use	Decreed right
Ash Canyon	Amount flowing through 5" iron pipe at upper end and 3-1/2" at lower end	Decreed right in name of V. & T. Railroad (purchased by State)
Dead Horse Canyon	Minor undetermined amount	No rights of record
Cemetery Line	Minor undetermined amount	No rights of record
Children's Home Well	0.3041 CFS or 182.46 AF/year	Permit No. 11109 and Certificate No. 3623 issued. Perfected right
Children's Home Well	1.0 CFS	Permit No. 14876 and Certificate No. 4277 issued. Perfected Right

SECTION III
FAIR AND EQUITABLE VALUE
OF PHYSICAL FACILITIES AND EASEMENTS

1. General

A number of approaches are available and used in the appraisal of physical works such as water supply systems. The method most commonly employed where the appraisal is made for the purpose of sale is known as "Replacement Costs Less Depreciation", and it was agreed that this method should be used by the appraiser to estimate the present value of the physical property comprising the system. Thus, the "fair and equitable value" of these facilities was determined by pricing the physical inventory, using construction costs currently in effect in the area for similar work, and adjusting these component total costs by depreciation factors determined through observation and inspection, as discussed in Section II hereinbefore.

Exhibit No. 2 in the Appendix of this report represents a tabulation of the physical inventory, together with estimated replacement costs and appraised valuation.

2. Physical Facilities

In the analysis of the inventory, consideration was given to those items of property which would be classed as representing modern water utility practice, and those items for which modern materials, equipment, or design practice would be substituted under present day practice because of obsolescence of the existing facility. The major portion of the present facilities fall into the first category, and therefore would be reconstructed or replaced substantially as they now exist (except for certain greater pipe capacities necessitated through greater demands of an increased service area). Items of property, for which modern materials and/or design practice would be substituted if the system were to be reconstructed at the present time include riveted and screwed joint steel pipe (only very small portions of riveted pipe remains), thin wall aluminum pipe, wooden storage tanks, uncovered concrete reservoirs, corrugated metal creek diversion structures, and pipe line installations above ground. In the evaluation of obsolescence, differentiation was made between a facility which may be obsolete by virtue of its design or material, but which still performs a necessary function, as opposed to a facility which is functionally worthless, because it is no longer required as a component of the overall system. The former would be replaced by a facility of modern design or material, the latter would not be replaced at all.

Associated project costs include preliminary and final engineering, administrative, legal and fiscal services. These costs are an integral part of any construction project and must therefore be included in the appraisal. The associated costs vary greatly with the overall scope, number of contracts involved, length of construction time, and method of financing. Costs used in this appraisal are based on the assumption that all three parts of the overall system would be designed and constructed at the same time, resulting in the lowest possible realistic associated project costs.

Information of special interest and factors bearing on the valuation of the Incline Tunnel and the Virginia City Siphon are presented separately in the following two paragraphs.

3. The Incline Tunnel

This tunnel represents a major link in the overall project and is presently not usable due to an undetermined amount of cave-ins. Previous studies by others have indicated that it would be desirable to rehabilitate the tunnel, not only because it facilitates gravity water conveyance from Marlette Lake to the eastern side of the Carson Range, but also because it intercepts a substantial amount of high quality water from subterranean springs within the tunnel.

Upon careful consideration of pertinent available information, personal experience, on-site inspection, and a study of the geological formations in the area, the appraiser concluded that considerable portions of the tunnel are substantially intact, and that a rehabilitation of the caved-in portions is feasible. The fact that a previous attempt to reopen the tunnel was abandoned is not considered evidence that the tunnel could not be restored.

The value of the tunnel, therefore, is represented by the difference in cost between the construction of a new tunnel, and the rehabilitation costs of the existing tunnel. If it is assumed that all areas of fractured and/or decomposed overburden are completely caved in and only portions in solid rock are intact, necessary restoration work would be equal to the construction of a new tunnel through earth or loose rock for the caved-in portions. Originally the tunnel was timbered for its entire length, but this was done to support the timber flume for which the tunnel was first constructed. Later, timbering was maintained only where it was required for structural support. A drawing identifying these locations was prepared in 1964 by Mr. D. Lane of the Buildings and Grounds Division from the best information then available. Utilizing that source it is estimated that at the most 1,350

linear feet of the existing tunnel may be caved in and require complete reconstruction. The remaining 2,435 linear feet of the tunnel are believed to require minor clean up and restoration work only to restore the tunnel to usable condition.

4. The Virginia City Siphon

This seven mile long siphon conveys water across the Washoe depression and represents the life line for the Virginia City, Gold Hill, and Silver City areas. Its operation must be maintained as long as these areas depend upon the Marlette Lake System for their water supply.

A careful inspection of the entire pipe line was made by the appraiser, and although it is over 90 years old, it was found to be in good condition for most of its length. Within the last 1-1/2 miles from its easterly end, the line is buried in volcanic soil, which is apparently corrosive and seems to be responsible for considerable deterioration of the pipe. Although replacement of pipe line portions within that region may become necessary in the foreseeable future, the westerly 5-1/2 miles of the siphon are expected to give continued satisfactory service for many years, as long as its service environment is not materially altered.

5. Easements

An investigation was made to determine the cost of pipe line easements granted to Carson City and to utility companies in the area. Although it was found that the acquisition costs for comparable easements over private lands vary somewhat with the width of the strip of land, and the use of the land over which such easements traverse, it was found that a representative price range has been established in the area. Acquisition costs paid in the past by Carson City for sewer line easements, and by utility companies for their facilities average between \$1.00 and \$1.50 per linear foot of easement, where such facilities must be situated on privately owned lands.

As a rule, utilities serving the public are installed in public right-of-ways as far as possible. There are generally no costs to the owners of the utility to install its lines in public right-of-ways, except the costs of certain application fees or use permits.

Upon due consideration of the predominant land uses involved, a uniform value of \$1.00 per linear foot was appraised for easements over privately owned lands. No value was appraised for easements or permits to construct facilities over publicly owned lands.

SECTION IV

FAIR AND EQUITABLE VALUE OF THE WATER RIGHTS

I. General

Water rights are property rights, and as such their appraisal must be included in the valuation of the total water system. But in appraising water rights each case is unique, and all factors must be considered. For instance, in California in recent years the "Counties of Origin" have placed a value on the water rights which the Los Angeles Municipal Water District, the City of San Francisco, and the East Bay Municipal Utility District have in their respective Sierra water supplies. These appraisals were made for purposes of taxation. In the instance of the Marlette Lake Water System, the appraisal is made for the purpose of sale.

A number of accepted methods are available to estimate the value of water rights, but in most instances only one or two of them can be utilized to appraise the water right of any particular system. With any method, conditions unique to the system at hand must be carefully considered in the overall appraisal. Among the traditional approaches are:

- a. Cost of acquisition of the original right.
- b. Market value.
- c. Sale of stock.
- d. Capitalized net revenue.
- e. Real property appreciation or depreciation.
- f. Alternative costs.

In the instance of the Marlette Lake system appraisal methods (a) through (d) cannot be used because:

- a. There is no record of the cost of acquisition of the existing rights.
- b. There is no established local market value of water rights, because they are not extensively bought and sold in the area.
- c. The value of water rights is not easily determined from the sale of stock in the Carson Water Company, because such sales often include value judgments other than water rights.
- d. The capitalized net revenue method leads to questionable results in this instance because of public rate regulation and the intangible of management efficiency.

The appraiser carried out extensive investigations and studies, utilizing both methods (c) and

(f) as guidelines, and giving due consideration to the unique conditions applying to the Marlette Lake system. Conclusions were drawn from an analysis of these studies, and are summarized in the following paragraphs.

2. Division of Water Rights

The Carson Range represents a natural barrier which separates the Marlette Lake source on the western slopes from the other sources on the eastern slopes. Because transmission facilities (pipe line from Marlette Dam to tunnel, and the Incline tunnel) necessary to convey Marlette Lake water by gravity flow to the eastern side of the range are at present inoperable and require extensive reconstruction, an investigation was made to compare the present and future water needs of the service area (Carson City and Virginia City, Gold Hill and Silver City) with the yields from the various sources of the system. Complete planning studies on projected water needs and hydrologic investigations necessary to determine the firm yields of the various sources are beyond the scope of this report. For this reason, pertinent information used to develop the following tables has been drawn from previous work of others.

Table IV-1 shows predicted population growth and water requirements; and Table IV-2 shows the estimated water yields from the Marlette Lake system sources. A comparison of these tables indicates that the yields from the eastern slope sources of the Carson Range alone are adequate to supply the needs of the service area for some 20 years hence.

Table IV-1
Projected Water Needs for Service Area

Year	Population Forecast			Water Requirements, AF/Year		
	Virginia City et al	Carson City	Total	Domestic	State	Total
1970	500	16,000	16,500	2,030	370	2,400
1980	600	25,000	25,600	3,160	555	3,715
1990	800	35,000	35,800	4,410	835	5,245
2000	1,000	45,000	46,000	5,670	1,255	5,925

In Table IV-1, the population forecast is based on projections by Raymond M. Smith, A.I.P.; domestic water requirements are computed on a per capita consumption of 125 gallons per day, State requirements are based on a 50% increase every ten years over the present use.

Table IV-2
Approximate Water Yields From
Marlette Lake System Sources

Unit	Source Reference or Assumption	Yield AF/Year
<u>WESTERN SLOPES</u>		
Marlette Lake	(1)	3500
<u>EASTERN SLOPES</u>		
Hobart Lake	(1)	2769
Incline Tunnel (300-500 GPM constant)	(1)	490 to 815
Diversions above Red House Dam	(1) & (2)	320
Upper Rose Spring	(3)	300
Lower Rose Spring	(4)	600
Dead Horse Canyon		undetermined minor yield
Ash Canyon	(5)	210
Cemetery		undetermined minor yield
Children's Home Well	(6)	565
Total Western Slopes		3500
Total Eastern Slopes (Less Children's Home Well)		4700 to 5100
Total Carson Range		8200 to 8600
Total all Sources - approximately		8765 to 9165

Some references and/or assumptions made in developing Table IV-2 are footnoted below.

- (1) Walter Reid report 1964
- (2) Assume yield of tunnel and diversions above Red House Dam at 1.0 million gallons per day for 6 months. $694.5 - 300$ (tunnel) = 394.5 GPM. 394.5 GPM for 6 months = 320 acre feet/year.
- (3) Legislative Report, pages 64 and 65. 1 CFS - assume 150 days = 300 acre feet/year.
- (4) Legislative Report, pages 64 and 65. 2 CFS - assume 150 days = 600 acre feet/year.
- (5) Legislative Report, pages 64 and 65. Amount of yield not clearly defined. Assume $V = 5$ FPS in 5" line, then $Q = 0.68$ CFS or 1.37 AF/Day. Assume 150 days = 210 acre feet/year.
- (6) Reported as 500 GPM, but pumps sand at 400 GPM and higher. Assume 350 GPM = 565 acre feet/year

For the service area to make use of Marlette Lake water will require either pumping over the divide, or laying a new pipe line to the tunnel and reopening the tunnel. Either of these alternatives is costly, and not justified at present. When the population of the service area has increased to about 40,000 persons, the situation could well change, and utilization of Marlette Lake water may become feasible.

For these reasons the decision was made to segregate the water rights into Western Rights and Eastern Rights. Although the Western Rights would represent a considerable "gravity value" within a western service area, they have at this time no fair market value in an eastern service area.

3. Valuation

As discussed in Paragraph 2 above, it is not economically feasible to market Marlette Lake water in the Carson - Virginia service area at the present time. Conveyance by gravity flow is not possible, because the required facilities are inoperative. Conveyance by pumping over the divide is possible, but the pumping costs practically equal the obtainable wholesale price of the water.

On the eastern slopes of the Carson Range, the existing capacity of Hobart Reservoir is inadequate to store a sufficient amount of spring runoff for the supply of the service area during the dry season. Similarly, the transmission line from the Tunnel to Red House is inadequate to convey the full yield of the tunnel water and other intercepted sources enroute. As a consequence of these system deficiencies, most of the eastern slope water crop is lost without being utilized beneficially.

The appraised value of the physical works is \$1,359,447. To a buyer, these works are of value only if he can also acquire the beneficial use of the water. However, in order to put the water rights to their full beneficial use, substantial additional physical works must be provided, and the costs for such additional physical works would equal or exceed the value that could otherwise be assigned to the water rights. Moreover, the State is desirous of selling the physical works of the system, but to retain the watershed lands upon which they are situated, including some beneficial use of the water itself, for fish and wildlife propagation and recreation. For these reasons, the State can expect to receive the appraised value of the existing physical works only if the water rights are included at a minimal price.

Weighing all of the considerations described herein, it is the considered judgment of the appraiser that, for purposes of sale to a buyer in the greater Carson - Virginia service area, the water rights attached to each part of the Marlette Lake Water System have at present a fair and equitable value of One Dollar.

APPENDIX

Exhibit No. 1 - Overall Facilities Map

Exhibit No. 2 - Inventory and Appraisal of Physical Works

EXHIBIT NO. 1

OVERALL FACILITIES MAP

(See filing pocket in back cover of the report)

EXHIBIT NO. 2

INVENTORY AND APPRAISAL OF PHYSICAL FACILITIES
MARLETTE LAKE WATER SYSTEM

PART 1 - FACILITIES ABOVE AND INCLUDING THE SIPHON INLET TANKS

<u>Item No.</u>	<u>Facility Description</u>	<u>Amount</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Replacement Cost \$</u>	<u>% Condition</u>	<u>Appraised Value \$</u>
1	Marlette Dam, including outlet works and spillway		L.S.		83,000	80	66,400
2	Marlette Reservoir clearing and grubbing, 20% of 380 acres	76	Acres	700.00	53,200	95	50,540
3	Caretaker's house				Salvage only		0
4	Marlette Lake cabin and shed	280	S.F.	10.00	2,800	75	2,100
5	Transmission line, Marlette Dam to tunnel: 25,200 LF alignment, consisting of						
	a. Clearing, grubbing, grading & embankment	4.8	Miles	2,500.00	12,000	60	7,200
	b. 8" thin wall aluminum pipe.	20,600	L.F.	1.50	30,900	10	3,090
6	Tunnel House				Salvage only		0
7	Tunnel	3,785	L.F.	90.00	340,650	55	187,358
8	Marlette Pump Station, including mechanical equipment, piping, fittings and valves, and access trail		L.S.		20,538	*	15,651
9	Shed at Marlette Pump Station	64	S.F.	4.50	288	25	72
10	Trailer mounted 9,820 gallon fuel tank		L.S.		2,950	*	2,055
11	3/4" PVC fuel line, fuel tank to pump station.	625	L.F.	0.25	156	35	55
12	Transmission line, Marlette to Hobart:						
	a. 8" O.D. 10 gauge coated steel pipe	2,686	L.F.	4.35	11,684	75	8,763

* Appraised by individual component parts

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<u>Item No.</u>	<u>Facility Description</u>	<u>Amount</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Replacement Cost \$</u>	<u>% Condition</u>	<u>Appraised Value \$</u>
12	b. 8-5/8" O.D. 3/16" wall bare, and coated and wrapped steel pipe	3,027	L.F.	4.60	13,924	95	13,228
	c. 8" thin wall aluminum pipe	1,620	L.F.	1.50	2,430	40	972
13	Transmission and interceptor line, tunnel to Red House Dam: 14,800 LF alignment, consisting of:						
	a. Clearing, grubbing, grading and embankment	2.8	Miles	4,000.00	11,200	90	10,080
	b. 8-5/8" O.D. 3/16" wall coated and wrapped steel pipe	11,544	L.F.	4.70	54,257	95	51,544
	c. 12" O.D. 3/16" wall steel pipe	3,256	L.F.	6.60	21,490	75	16,118
	d. Tunnel water inlet facilities	1	Each	200.00	200	75	150
	e. Creek diversions and sand traps	5	Each	450.00	2,250	85	1,912
14	Hobart Dam, including outlet works and spillway		L.S.		32,800	60	19,680
15	Hobart Reservoir clearing and grubbing, 25% of 14 acres	3.5	Acres	300.00	1,050	90	945
16	New Red House Dam		L.S.		6,320	*	6,234
17	Old Red House Dam		L.S.		Obsolete		0
18	Red House Buildings	1,170	S.F.		Salvage only		0
19	Transmission Line, New Red House Dam to Siphon Inlet Tanks: 22,260 LF alignment, consisting of:						
	a. Clearing, grubbing, grading and embankment	4.2	Miles	5,500.00	23,100	95	21,945
	b. 24" O.D. 10-gauge steel pipe, coated and wrapped	800	L.F.	14.00	11,200	80	8,960
	c. 18" O.D. 12-gauge steel pipe, coated and wrapped	18,160	L.F.	10.80	196,128	80	156,902
	d. 18" O.D. 10-gauge steel pipe, coated and wrapped	3,300	L.F.	11.25	37,125	80	29,700

* Appraised by individual component parts

Item No.	Facility Description	Amount	Unit	Unit Price	Replacement Cost \$	% Condition	Appraised Value \$
20	8000 gallon wood stave tanks, including site grading, foundations and retaining walls	2	Each	5,735.00	11,470	*	7,920
Subtotals					\$ 983,110		\$689,574
Engineering, Administrative, Legal and Fiscal Services, 10%					98,311		68,957
PART I TOTALS					\$1,081,421		\$758,531

PART II - SYSTEM BELOW SIPHON INLET TANKS, SERVING PARTS OF CARSON CITY

1	Inlet facilities, consisting of 8" gate valve, 2 welded steel manifolds, 28" in-line strainers		L.S.		615	*	442
2	Meter House, including 8" Hersey-Sparling meter, valves, and meter bypass piping		L.S.		2,870	*	2,471
3	Transmission line, inlet tank to Vicee Canyon, consisting of:						
	a. Clearing, grubbing and grading	0.9	Miles	2,000.00	1,800	90	1,620
	b. 8-5/8" O.D. steel pipe, bare	4,563	L.F.	4.50	20,533	85	17,453
	c. Concrete pressure relief manholes	2	Each	450.00	900	90	810
4	Transmission Line, Vicee Canyon to Upper Reservoir, consisting of:						
	a. Clearing, grubbing and grading	1.5	Miles	1,500.00	2,250	90	2,025
	b. 10" O.D. steel pipe, bare	8,033	L.F.	5.20	41,772	85	35,506
	c. Concrete pressure relief manhole	1	Each	450.00	450	90	405
5	Transmission Line, Upper Reservoir to Lower Reservoir, consisting of:						
	a. 10" O.D. steel pipe, bare	3,655	L.F.	5.20	19,006	85	16,155
6	Vicee Canyon Diversion, consisting of:						
	a. 2" steel pipe	4,000	L.F.	1.50	6,000	35	2,100
	b. 4" steel pipe	2,140	L.F.	2.50	5,350	35	1,872
7	Dead Horse Canyon Diversion, consisting of 4" steel pipe	5,250	L.F.	2.50	13,125	20	2,625

* Appraised by individual component parts

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Item No.	Facility Description	Amount	Unit	Unit Price	Replacement Cost \$	% Condition	Appraised Value \$
8	Ash Canyon Diversion, consisting of 2-1/2" steel pipe	2,000	L.F.	2.00	4,000	20	800
9	Cemetery Line 2"	600	L.F.	1.50	900	20	180
10	Upper Reservoir, including site preparation, excavation, reinforced concrete, appurtenant piping, valves, fittings, vaults and fencing		L.S.		28,710	*	24,240
11	V.&T. Reservoir, including site preparation, excavation, stone rip-rap, appurtenant piping, valves, fittings and fencing		L.S.		12,010	Obsolete Salvage	1,140
12	Sand filters, including site preparation excavation, reinforced concrete, appurtenant piping, valves, fittings, and fencing		L.S.		13,675	Obsolete Salvage	1,340
13	Lower Reservoir, including site preparation, excavation, reinforced concrete, chlorination facilities, appurtenant piping, valves, fittings and fencing		L.S.		24,190	*	19,052
14	Distribution System Mains (all mains downstream of the Lower Reservoir) consisting of:						
	a. 8" I.D. cast iron pipe, coated	8,500	L.F.	8.00	68,000	90	61,200
	b. 8" O.D. steel pipe, coated	7,060	L.F.	5.50	38,830	75	29,122
	c. 6" O.D. steel pipe, coated	1,185	L.F.	4.75	5,629	75	4,222
	d. 4" O.D. steel pipe, coated	416	L.F.	3.50	1,456	75	1,092
	e. 4" I.D. cast iron pipe coated	6,700	L.F.	4.00	26,800	90	24,120
15	Service lines from mains to property lines, consisting of:						
	a. 6" O.D. steel pipe	90	L.F.	4.75	427	75	320
	b. 4" O.D. steel pipe	150	L.F.	3.50	525	75	394
	c. 2" Steel pipe	445	L.F.	2.50	1,112	65	722
	d. 3/4" Steel pipe	15	L.F.	2.00	30	50	15
	e. 1/2" Steel pipe	90	L.F.	2.00	180	50	90

* Appraised by individual component parts

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Item No.	Facility Description	Amount	Unit	Unit Price	Replacement Cost \$	% Condition	Appraised Value \$
16	Distribution System Valves & Boxes						
	a. 8" Valves	7	Each	280.00	1,960	50	980
	b. 6" Valves	19	Each	180.00	3,420	50	1,710
	c. 4" Valves	6	Each	140.00	840	50	420
	d. 2" Valves	13	Each	80.00	1,040	50	520
	e. 3/4" Valves	1	Each	10.00	10	50	5
	f. 1/2" Valves	1	Each	10.00	10	50	5
17	Fire Hydrants						
	a. Two 2-1/2" connections	12	Each	400.00	4,800	50	2,400
	b. Two 2-1/2" and one 4" connections	3	Each	600.00	1,800	90	1,620
18	Well structure at Children's Home, including well, well pump, high service pump, sand trap structure, building, electrical, appurtenant piping, valves and fittings		L.S.		19,450	*	6,505
	Subtotals				\$374,475		\$265,698
	Engineering, Administrative, Legal and Fiscal Services, 10%				37,448		26,569
	PART II TOTALS				\$411,923		\$292,267

PART III - SYSTEM BELOW SIPHON INLET TANKS, SERVING VIRGINIA CITY, GOLD HILL AND SILVER CITY, UP TO AND INCLUDING FIVE MILE RESERVOIR

1	Siphon across Washoe Valley, consisting of:						
	a. Clearing, grubbing and grading	7.0	Miles	500.00	3,500	90	3,150
	b. 10" Inlet Valve	1	Each	350.00	350	50	175
	c. 10" screwed joint steel pipe, varying in wall from 1/4" to 7/16", coated	36,800	L.F.	11.50	423,200	55	232,760
2	Transmission Line, Siphon to 5-Mile Reservoir:						
	a. 8" O.D. 12-gauge steel pipe, seam and spiral weld type, coated	17,000	L.F.	2.50	42,500	75	31,875
3	Five Mile Reservoir, including excavation, embankments, inlet piping and valves, buildings, (salvage only - no value) and fencing				17,600	*	12,630
	Subtotals				\$487,150		\$280,590

* Appraised by individual component parts

	Subtotals forwarded	\$487,150	\$280,590
Engineering, Administrative, Legal and Fiscal Services, 10%		<u>48,715</u>	<u>28,059</u>
	PART III TOTALS	\$535,865	\$308,649

SUMMARY - PHYSICAL FACILITIES

<u>Part No.</u>	<u>Replacement Costs</u>	<u>Appraised Value</u>
I	\$1,081,421	\$ 758,531
II	411,923	292,267
III	<u>535,865</u>	<u>308,649</u>
TOTAL	\$2,029,209	\$1,359,447

NOV 13 1970

ROUTE AUDIT ()
L ()
RECORDS ()

CONTRACT TO SUPPLY WATER

THIS CONTRACT, made and entered into this 11 day of May, 1969, by and between the STATE OF NEVADA, on behalf of its MARLETTE LAKE WATER SYSTEM, hereinafter referred to as "STATE", and JAVAD MEHEEN, Route 3, Box 262-B, Carmel, California, H. JOE MEHEEN, 6464 W. 14th Avenue, Apartment 204, Denver, Colorado, SAID MEHEEN, P. O. Box 136, Murphys, California, M. MICHAEL MEHEEN, 386-A Pacific Street, Monterey, California, ROBERT J. ROMAGGI, P. O. Box 650, Carson City, Nevada, WILLIAM E. DIAL, P. O. Box 623, Carson City, Nevada and HUGH PRESTON, Murphys, California, doing business as LAKEVIEW DEVELOPMENT COMPANY, a partnership, hereinafter referred to as "COMPANY",

W I T N E S S E T H:

THAT WHEREAS, State is the owner of the right to use the waters of Marlette Lake and Hobart Reservoir, located in Washoe County, Nevada, together with the easements and the pipeline known as the Marlette Lake Syphon for the transportation of said water to Virginia City, Nevada, and

WHEREAS, said syphon passes through certain real property located in Ormsby and Washoe Counties owned by Company, and which Company is in the process of subdividing into residential building sites, and

WHEREAS, State desires to sell and Company desires to purchase water for domestic use on said subdivision land, said water to be diverted from said Marlette Lake Syphon as hereinafter provided,

NOW, THEREFORE, in consideration of the premises and the mutual undertakings and obligations herein assumed, the parties hereto do hereby covenant and agree as follows:

1. The State agrees to supply water to the Company as the Company may require, not to exceed 50,000 gallons per day, upon meter computations as hereinafter provided. The water used in large amounts in suppressing or extinguishing fires will not be charged to the

Company, nor will the amount of water to be delivered to the Company in the event of such emergency be limited to the aforementioned daily maximum of 50,000 gallons. The limitations upon the duty of the State to supply water to the water company, as in this paragraph recited, are the following:

(a) In the event that a legal action or legal actions are commenced in the future against the State in its administrative or proprietorship capacity, in the administration of its Marlette Lake Water System, claiming rights to the distribution of the water of said system, or the lands embraced within said system, which action or actions may culminate in a judgment or judgments against the State, thereby depleting the quantity of available waters for the discharge of the aforementioned provision, creating an impossibility of performance, the State shall be released from the obligation to the extent of the impossibility of performance, thus created. At present no such actions are pending or contemplated.

(b) The rights of the Company hereunder to receive water from the State, by its Marlette Lake Water System, under the terms and provisions hereof, are subject to the further limitation of the inability of the State to supply, by reason of breaks in the water line, unavoidable stoppage or interruptions caused by weather conditions, icing, snow conditions, floods, drought, erosion, the public enemy, strikes or other acts of God beyond the control of the State.

2. The said land to be served with water pursuant to this agreement is described by metes and bounds in Exhibit "A" which is attached hereto and incorporated by reference in this agreement.

3. The contemplated point of diversion at which the State shall make delivery of said water is in the NW-1/4 of the SE-1/4 of Section 35 in T. 16 N., R. 19 E., M. D. B. & M. at a point on the Marlette Lake Syphon within ten (10) to twenty (20) feet easterly at the point at which the North-South centerline of Section 35 intersects said Marlette Lake Syphon. Provided, however, that

Company may select another point in the general area along said syphon in the event storage requirements or other engineering considerations make it more desirable to divert said water at a point other than that described in this paragraph.

4. The State will remain responsible for the repair and maintenance of the system lying between the water source and said point of diversion, and the Company shall be responsible for storage, water treatment and distribution and the repair and maintenance of the Company system on all of the land described in Exhibit "A".

5. The water sold, or to be sold and delivered, under the terms and provisions hereof, shall be measured by meter owned and maintained by the State at the location aforementioned, and the reading of the meter shall be by an agent of the State, monthly, on the last day or approximately the last day of each month during the term hereof.

6. Upon determination of the precise point of diversion, as aforesaid, the facilities and equipment required for connection of the Company water system with the Marlette Lake Syphon, including an appropriate water meter approved by the State, shall be purchased and installed at the expense of Company. Provided, however, that the design of the diversion facilities shall be subject to the approval of the State and the construction and installation of such facilities shall be accomplished under the supervision of the State and shall be subject to the approval by the State as to workmanship and compliance with design specifications.

7. The price at which such water shall be sold during the term of this contract shall be sixteen cents (\$.16) per one thousand (1,000) gallons as measured by said meter. Billings by the State to the Company shall be at or near the beginning of each month during the term hereof, and the Company agrees to pay and settle each billing on or before the fifteenth (15th) day of the month after receipt of billing, representing the payment of the water services for the past completed calendar month.

8. The provisions of this contract shall become effective as of the date of execution hereof, and the obligation of the Company to pay as herein provided shall commence on the date water is first delivered into the Company system.

9. The provisions of this contract shall remain in effect for a period of three (3) years commencing with the date that the first delivery of water is made by the State into the water system of the Company. The Company shall have an option to renew this agreement for additional periods of five (5) years each so long as the Company shall require the use of said water on the said land described in Exhibit "A". Each renewal of this agreement shall be on the same terms and conditions as stated herein, except that the rate required to be paid by the Company to the State may be changed by mutual agreement of the parties using as a basis any such increase or decrease in costs to the State for the delivery of such water. In the event of such increase or decrease upon which the parties cannot mutually agree, the matter shall be submitted to arbitration before three (3) arbitrators, one representing the Department of Administration of the State of Nevada, one representing the Company and one to be selected from the Public Service Commission, and the parties agree to be bound by the decision reached by said arbitrators.

10. The parties agree that in the event of a loss of substantial quantities of water by the Company, occasioned by an earthquake, the public enemy, act of God, or unforeseen circumstance beyond the control of the Company, as a consequence of which substantial quantities of water are lost and although metered by the State are never sold to the consuming public of the area served by the Company, the Company may make application to the State for an adjustment of its billing and shall submit evidence of such emergency loss. The filing of such application by the Company shall not impose any duty upon the State to make such adjustment, but shall require a consideration by the State of the merits of the application and the circumstances set forth therein.

11. The parties further agree that if a meter (or meters) breaks down, becomes "jammed" or otherwise defective in its (their) operation, by which, if such meter (or meters) had not become defective or inoperative an accurate reading would have been obtained, such fact shall be communicated to the Company. After such communication, the parties shall confer and the facts shall be explained to the Company, after which an adjustment shall be made and an accord reached as to the water that was consumed, despite the fact that the meter does not register the same. In the making of such an adjustment or accord, for the purposes of billing, the parties shall consider the records as to water previously metered, the period of time in which the defect existed, and other relevant data.

12. That parties recognize that evaporation, leaks and other causes will result in unaccounted for losses of water in the Company system for which the Company will not be reimbursed by its customers. To equitably adjust and distribute the expense of such unaccounted for losses between the parties the State agrees to give the Company a credit of ten percent (10%) on each monthly billing provided in paragraph 7 hereof.

13. The Company shall, at its own cost and expense, comply with all requirements of the Department of Health of the State of Nevada, relative to chlorination and purification of all water to be sold and delivered hereunder. The State will use its best efforts to provide the Company with water free from contamination.

14. The Company further agrees to construct such storage facilities of a capacity sufficient to supply the demand of the Company's customers at any given time for a period of at least two (2) days. The site of such storage shall be selected by the Company and the Company shall bear the entire cost of construction and maintenance of such storage facilities.

15. Checks by the Company in payment of the monthly billing for water service or sales hereunder, at the rate aforesaid shall be

made payable by the Company to the State, payable as follows:

"STATE OF NEVADA"
"Marlette Lake Water System"

Such checks shall be mailed to: Department of Administration,
Carson City, Nevada.

16. All notices hereunder shall be in writing, by Registered Mail, and shall be directed to the addresses heretofore given in the first paragraph of this contract.

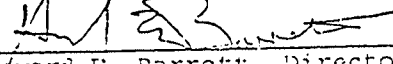
17. Nothing contained herein shall be construed in such a manner as to require the repair or replacement of any of the facilities owned by the State in the Administration of the Marlette Lake Water System, or the construction of further or enlarged facilities to such system, to the end that more water may be made available to the Company. In this respect, the parties agree that any such improvement to the said system shall be undertaken entirely at the discretion of the State, both as to timing and as to the projects, improvements and/or enlargements.

18. The terms and provisions of this contract shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors and assigns.

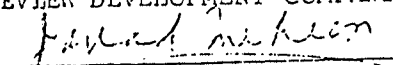
IN WITNESS WHEREOF, the parties hereto have hereunto executed this contract, the day and year first above written.

EXECUTED IN TRIPLICATE.

STATE OF NEVADA
Marlette Lake System

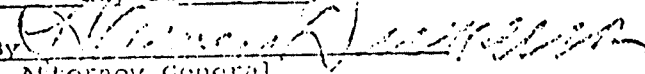
By 
Howard E. Barrett, Director
Department of Administration

LAKEVIEW DEVELOPMENT COMPANY

By 
Javad McHeen, Managing Partner

APPROVED as to form this

28 day of May, 1969.

By 
Attorney General

SCHEDULE C

The following is a list of the parcels of land:

All to be certain lot, piece or parcel of land situated in the County of Washoe, State of Nevada, and the County of Ormsby, State of Nevada, more particularly described as follows:

PARCEL NO. 1

A piece or parcel of land being the Southeast 1/4 and a portion of the South 1/2 of the Northeast 1/4 of Section 35; and the Southwest 1/4 of the Southwest 1/4, the North 1/2 of the Southwest 1/4 and a portion of the Southwest 1/4 of the Northwest 1/4 of Section 36, Township 16 North, Range 19 East, M. D. B. & M., excepting therefrom the Highway right of way and a parcel to the State of Nevada, and being located in Washoe and Ormsby Counties, Nevada, and more particularly described as follows:

Beginning at the one quarter corner at the Southwest corner of the said Southwest 1/4 of Section 35; thence along the Section line North 89°57'30" East, 2651.69 feet; thence South 89°57'13" East, 1322.61 feet; thence North 0°06'08" East, 1319.89 feet; thence South 89°56'08" East, 1323.18 feet; thence North 0°07'32" East, 720.71 feet to the Southerly Highway right of way line; thence along the Highway right of way North 77°30'52" West, 722.23 feet; thence following a curve to the right with a radius of 1972 feet; through an angle of 22°35'03" for a distance of 777.30 feet; thence North 34°56'38" East, 30.09 feet; thence on a curve to the right from a tangent bearing of North 55°03'24" West with a radius of 1942 feet; through an angle of 2°32'06" for a distance of 85.92 feet; thence South 53°33'34" West, 570.82 feet; thence North 41°32'00" West, 250.09 feet; thence North 54°41'00" East, 510.00 feet; thence on a curve to the right from a tangent bearing North 45°08'41" West, with a radius of 1972 feet through an angle of 6°31' for a distance of 224.29 feet; thence North 72°46'25" West, 862.30 feet; thence South 85°54'34" West, 2641.19 feet; thence South 0°23'25" West, 2961.45 feet to the Point of Beginning.

PARCEL NO. 2

That portion of the Northeast 1/4 of the Southwest 1/4 of Section 36, Township 16 North, Range 19 East, M. D. B. & M., lying Northerly of the Highway right of way and being in Ormsby County, Nevada, and more particularly described as follows:

Beginning at the Northeast corner of said Northeast 1/4 of the Southwest 1/4 of Section 36, from which the one quarter corner on the West boundary of said Section 36, bears North 97°59'03" West, 2647.52 feet; thence South 0°07'32" West, 217.50 feet to the Northerly right of way line of said Highway; thence along the Highway North 82°37'18" West, 499.06 feet; thence on a curve to the right with a radius of 1650 feet; through an angle of 18°39'01" for a distance of 537.09 feet; thence South 89°59'03" East, 1007.57 feet to the Point of Beginning.

Excepting that portion conveyed to the State of Nevada for Highway purposes as contained in Deeds in Book 37, Page 277, and Book 4, Page 499.

Exhibit "A"

SUMMARY--Authorizes state and certain political subdivisions to negotiate sale, lease of Marlette Lake water system; creates advisory committee for system.
Fiscal Note: No. (BDR S-1999)

AN ACT to amend an act entitled "An Act relating to the Marlette Lake water system; providing separately for the administration of land and for the administration, sale or lease of the water supply system; making appropriations; and providing other matters properly relating thereto," approved April 21, 1969; creating an advisory committee for the Marlette Lake water system; and providing other matters properly relating thereto.

THE PEOPLE OF THE STATE OF NEVADA, REPRESENTED IN SENATE AND ASSEMBLY, DO ENACT AS FOLLOWS:

Section 1. Section 4 of the above-entitled act, being chapter 496, Statutes of Nevada 1969, at page 873, is hereby amended to read as follows:

Section 4. 1. The department of administration may sell the Marlette Lake water system, as redefined by section 1 of this amendatory act, to ; [any]

(a) Any purchaser, [including but not limited to] excluding Carson City or a general improvement district, if such purchaser is first approved by the interim finance committee, for a price not less than its appraised value, which price may be payable over such term of years as will permit its payment, with interest at a mutually agreed rate upon the deferred balance, to be made from revenues of the system. The department of administration may, alternatively, lease the system for a term of not more than 99 years to any entity which would be a qualified purchaser under this [section,] paragraph, at a rental based upon the appraised value of the system.

(b) Carson City or a general improvement district, if such purchaser and the purchase price are first approved by the interim finance committee, for a negotiated price less than its appraised value, which price may be payable over such term of years as will

permit its payment, with interest at a mutually agreed rate upon the deferred balance, to be made from the revenues of the system. The department of administration may, alternatively, lease the system for a term of not more than 99 years to Carson City or a general improvement district which would be a qualified purchaser under this paragraph, at a rental based upon a negotiated value of the system.

2. In making any sale or lease pursuant to this section, the department of administration shall:

(a) Reserve full control over all land which is subject to NRS 331.170, as amended, for the purposes of that section.

(b) Consider and protect the needs of Virginia City, Gold Hill and Silver City to be supplied with water from the system.

Sec. 2. Section 4.5 of the above-entitled act, being chapter 496, Statutes of Nevada 1969, at page 873, is hereby amended to read as follows:

Section 4.5. The department of administration may sell the water distribution facilities serving Virginia City from below the syphon inlet tanks to and including Five-Mile Reservoir, to : [the unincorporated town of Virginia City, Storey County, or to any]

1. Any purchaser except the unincorporated town of Virginia City, Storey County, approved by the interim finance committee, for a price not less than its appraised value, which price may be payable over such term of years as will permit its payment, with interest at a mutually agreed rate upon the deferred balance, to be made from revenues of the water distribution facilities. The department of administration may, alternatively, lease the water distribution facilities for a term of not more than 99 years to any entity which would be a qualified purchaser under this [section,] paragraph, at a rental based upon the appraised value of the water distribution facilities.

2. The unincorporated town of Virginia City, Storey County, if such purchase price is first approved by the interim finance

committee, for a negotiated price less than its appraised value, which price may be payable over such term of years as will permit its payment, with interest at a mutually agreed rate upon the deferred balance, to be made from revenues of the water distribution facilities. The department of administration may, alternatively, with the approval of the interim finance committee, lease the water distribution facilities for a term of not more than 99 years to the unincorporated town of Virginia City, Storey County, at a rental based upon a negotiated value of the water distribution facilities.

Sec. 3. Section 5 of the above-entitled act, being chapter 496, Statutes of Nevada 1969, at page 873, is hereby amended to read as follows:

Section 5. If the department of administration finds that a sale or lease pursuant to section 4 of this act is not feasible, it may, with the approval of the governor : [, sell]

1. Sell or lease the water distribution facilities, serving parts of Carson City, which are below the syphon inlet tanks, at a price not less than the appraised value of such facilities, to any purchaser, [including but not limited to] except Carson City or a general improvement district, if such purchaser is first approved by the interim finance committee.

2. Sell or lease the water distribution facilities, serving parts of Carson City, which are below the syphon inlet tanks, at a negotiated price, to Carson City or a general improvement district, if such sale or lease is first approved by the interim finance committee.

Sec. 4. Chapter 331 of NRS is hereby amended by adding thereto a new section which shall read as follows:

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

(a) One representative appointed by the state board of fish and game commissioners.

(b) One representative appointed by the director of the department of administration.

(c) One representative appointed by the state park advisory commission.

(d) Two legislators appointed by the legislative commission.

(e) Two representatives appointed by the governor, one of whom shall be a resident of Carson City and one of whom shall be a resident of Virginia City.

2. Members of the advisory committee shall serve at the pleasure of their respective appointing authorities and shall receive no compensation, per diem allowances or travel expenses.

3. The advisory committee may make recommendations to the interim finance committee, the department of administration and the governor concerning any proposed sale or lease of the Marlette Lake water system or any part thereof, but such recommendations shall not bind the interim finance committee, the department of administration or the governor.

4. The advisory committee shall assist the state department of conservation and natural resources in performing the duties imposed upon that department by NRS 331.170.

Sec. 5. This act shall become effective upon passage and approval.