THE BENEFICIAL USE OF WATER IN NEVADA

BULLETIN NO. 35

Nevada Legislative
Counsel Bureau

JANUARY 1959
Carson City, Nevada

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NEVADA LEGISLATIVE COUNSEL BUREAU

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FOREWORD

The Nevada Legislative Counsel Bureau is a fact-finding organization designed to assist legislators, State officers, and citizens in obtaining the facts concerning the government of the State, proposed legislation, and matters vital to the welfare of the people. The staff will always be non-partisan, and non-political; it will not deal in propaganda, take part in any political campaign, nor endorse or oppose any candidates for public office.

The primary purpose of the Counsel Bureau is to assist citizens and officials in obtaining effective State government at a reasonable cost. The plan is to search out facts about government and to render unbiased interpretations of them. Its aim is to cooperate with public officials and to be helpful rather than critical. Your suggestions, comments, and criticisms will greatly aid in accomplishing the object for which we are all working--the promotion of the welfare of the State of Nevada.

1957 SESSION, NEVADA LEGISLATURE

ASSEMBLY RESOLUTION NO. 22

Memoralizing the legislative counsel bureau to study the problems relating to the use of water for the propagation of fish and wildlife.

WHEREAS, The use of water for the propagation of fish and wildlife is not a beneficial use under the law; and

WHEREAS, The fish and game commission of the State of Nevada has acquired various lands, but water appurtenant thereto cannot be used legally for the propagation of fish and wildlife; and

WHEREAS, Fish and game are important natural resources in the State of Nevada; and

WHEREAS, It appears desirable that a study be made of the use of water for the propagation of fish and wildlife in order to determine the equity and justice of broadening the legal definition of the beneficial use of water; now, therefore, be it

RESOLVED BY THE ASSEMBLY OF THE STATE OF NEVADA, That the legislative counsel bureau be memorialized to study the problems relating to the use of water for the propagation of fish or wildlife, and be it further

RESOLVED, That the legislative counsel bureau cooperate in making the study with the Nevada State Farm Bureau, the Nevada Federated Sportsmen, the Nevada State Cattle Association, the Nevada State Reclamation Association, the Nevada Fish and Game Commission, and any other interested groups or committees thereof; and be it further

RESOLVED, That a report relative thereto be presented to the 1959 session of the Nevada legislature for study and consideration.

STATE OF NEVADA

OFFICE OF STATE ENGINEER

CARSON CITY, NEVADA

July 15, 1957

Mr. J. E. Springmeyer
Legislative Counsel
Capitol Building
Carson City, Nevada

Dear Jeff:

Reference is made to our recent conversation and your request that we comment briefly on Assembly Resolution No. 22.

We do not agree with the first two preamble statements of Assembly Resolution No. 22, but do agree in principle with the last two statements and with the general objective of the resolution itself.

It is our opinion that the use of water for the propagation of fish and wildlife is a proper and beneficial use of water and in support of such opinion, respectfully bring to your attention the fact that for many years past this office has granted permits and issued certificates for such purposes under the Water Law of the State.

Before the recent legislation declaring fish and wildlife should be of beneficial use was introduced, the matter was studied by this office and members of the Fish and Game Commission staff. The purpose of the legislation was to have the Legislature specifically set forth fish and game use as beneficial in order to avoid possible legal action, which is possible under the present statutes which are silent on what uses are beneficial.

I will be happy to meet with the Legislative Counsel Bureau at any time to discuss our position in this matter.

Very truly yours,

/s/ EDMUND A. MUTH

State Engineer

EAM:m

ASSEMBLY BILL NO. 152

AN ACT to amend chapter 533 of NRS relating to the appropriation of public waters and the adjudication of vested water rights, by creating a new provision relating to the use and storage of water for the propagation of fish or wildlife.

The People of the State of Nevada, represented in Senate and Assembly, do enact as follows:

SECTION 1. Chapter 533 of NRS is hereby amended by adding thereto a new section which shall read as follows:

1. The use of water for the propagation of fish or wildlife is hereby declared to be a beneficial use. The right to use water for that purpose may be acquired in the same manner as the right to use water for any other beneficial purpose.

2. Water acquired for the propagation of fish or wildlife may be stored and used when needed, and as needed, by the individual or agency acquiring it, and shall not be subject thereafter to appropriation, but may be used to maintain stream flow.

3. The point of diversion, manner and place of use of water acquired for any other beneficial purpose, may be changed to the propagation of fish or wildlife, upon application to the state engineer in the same manner and form required for any other change of use.

4. Water acquired under the provisions of this section may be acquired by individuals, partnerships, firms or corporations, and by the state, its political subdivisions and agencies.

PROPOSED
WATER RESOURCE POLICY

STATE OF NEVADA

PREAMBLE

Water is recognized as a major resource of the State of Nevada and has played and will continue to play an all important part in the health and economic development of this State. In order that this resource shall be wisely used and that it will serve the best interests of all of the people of the State, the following water resource policy is adopted. This policy shall be a guide to those departments, agencies and others involved in water use and management activities within the State.

POLICY

IT SHALL BE THE POLICY OF THE STATE OF NEVADA:

General:

1. To maintain, preserve and restore the quantity and quality of both surface and ground waters at the highest possible level consistent with their best uses; (such as, domestic, irrigation and other agricultural purposes; stock watering, industrial water supplies, development of fish and wildlife; recreation, energy for hydroelectric power, general public use and for the controlled disposal of community and industrial wastes).

Make studies

2. To promote, plan and participate in such basic surveys and studies as are necessary for the determination of quality and quantity of water and its current and eventual need for all purposes.

Basis of consideration

3. To primarily consider water resource development on geographic or drainage basin basis, and to give consideration to all water uses.

Prepare comprehensive plans.

4. To develop comprehensive multiple water use plans by means of inventories of present and potential uses of the resources to be made in each area. The comprehensive plans to take into consideration the existing rights, to establish the pattern of priority of water uses in the respective areas, giving consideration to individual interests subject to the highest beneficial use.

Correct influences

5. To prevent or reduce all unfavorable influences on the water resource; (such as rapid and excessive run-off; water wastage and excessive allocation; unwarranted obstructions to flow; excessive erosion and siltation; excessive temperatures; and contamination and pollution) by:

   a. Encouraging the development and implementation of good water and land management practices;

b. Eliminating or decreasing influences due to conflicts between water uses which cause the deterioration of water quality and the diminishing of water quantity;

c. Defining and setting appropriate limits (duties) for new water uses;

d. Recovering water quantity from non-used or improperly used water rights when in the public interest;

e. Establishing and enforcing standards of control of water quality.

Coordinate activities

6. To coordinate the activities of all State, local, Federal, interstate and international agencies and private interests involved in water use or management, and to provide for the close cooperation of such agencies and interests in all activities affecting the water resource of Nevada.

Sovereignty of the State

7. To so direct and conduct all activities regarding the water resource as to reinforce and strengthen State control, recognizing that it is of paramount importance that the principle of the sovereignty of the State over all the waters within its boundaries be protected and preserved.

Administration and legislation

8. To provide for the proper administration and control of the water resource in accordance with the above established policy; and to recommend modification of existing statutes and enactment of such new legislation as from time to time may become necessary.

PREFACE

During the 1957 Session of the Nevada Legislature, the Assembly adopted Assembly Resolution No. 22, which memorialized the Legislative Counsel Bureau to study the problems relating to the beneficial use of water for the propagation of fish and wildlife, to consult with the Nevada State Farm Bureau, the Nevada Federated Sportsmen, the Nevada State Cattle Association, the Nevada State Reclamation Association, and the Nevada Fish and Game Commission, and to present a report to the 1959 Session of the Nevada Legislature for study and consideration.

Under the present status of water laws in Nevada, all the water can be appropriated from a stream, allowing an individual to completely dry up the stream for irrigation, power or other beneficial uses. In order to maintain the fishery resource of the State, the Nevada Fish and Game Commission felt that there should be some avenue whereby it could purchase or obtain water rights similar to those granted to other beneficial users, and allow the water to remain in the stream bed for the protection of the fishery resource. Assembly Bill No. 152 was introduced during the 1957 Session in order to achieve this objective, but was allowed to die in the Assembly Joint Committee of Fish and Game and Agriculture and Irrigation, and the current studies ordered instead.

Particular attention should be paid to the pertinent provisions in Nevada's water laws, as set forth in Chapter III. The proposed water resource policy statement is based upon a similar statement evolved in the State of Washington, with minor changes in wording to suit conditions in Nevada.

Copies of this study may be obtained without cost from the Nevada Legislative Counsel Bureau, Carson City, Nevada.

J. E. Springmeyer
Legislative Counsel

BENEFICIAL USE OF WATER IN NEVADA

CHAPTER I

WATER SUPPLY AND USE IN THE STATES 1/

Current concern about water resources stems largely from the severe shortages that have affected many areas of the country during the past few years. The difficulties experienced by municipalities, industries and farmers have raised questions in many people's minds. Among these questions are: How severe is the water shortage? Is it temporary, or is it likely to be permanent? What caused it? Is the best use being made of our water resources? What can the states and cities do to help alleviate the problem? What administrative arrangements are necessary to provide for sound state water resource programs?

Before answers can be found to such questions, it is necessary to have adequate basic data on water supply and use. Many of the reports of studies presented to state legislatures on these subjects summarize available data. The investigating groups frequently have found, however, that the data are incomplete, and one of their common recommendations is for accelerated research and fact-gathering programs.

Recently several nationwide surveys have estimated current water use and have predicted demands. The United States Geological Survey has estimated water use for each of the states for 1950 and 1955. The President's Materials Policy Commission (The Paley Commission) in 1952 estimated current water supply, withdrawals and future requirements. The Water and Sewerage Industry and Utilities Division of the Business and Defense Services Administration, United States Department of Commerce, has presented national estimates of water use for selected years between 1900 and 1975. Using these estimates, it is possible to put the more detailed state reports into a broader perspective and to examine national and regional trends.

Sufficient water is available in the United States to meet present and forseeable future demands. This does not mean, however, that the available supply is adequate in all regions. In certain areas there is an acute distribution problem, and severe water shortages have affected many localities. Not only has the demand increased as population and industry have expanded; the geographic pattern of consumption has changed as major shifts of population have occurred from rural to urban areas, and as industry has moved to new regions, creating local maladjustments in supply. Drought has accentuated the problem in many areas.

Unregulated use of water in some areas and failure to develop water resources in others have contributed to shortages. In some places unrestricted pumping has lowered ground water tables and depleted reserves. Because of lack of storage facilities and of adequate wells and water transmission lines, some users have had to depend upon sources of supply that are inadequate in dry periods. Private owners frequently have been reluctant to construct storage facilities or develop other sources because their legal rights to the water have not been clear and, accordingly, it was difficult to justify the investments involved. Nor have many state and local governments undertaken extensive construction of such facilities. The result is that the excess water available during some periods and in some areas has largely escaped and has not been retained for use at later times.

1/ Council of State Governments. State Administration of Water Resources. Chicago, 1957.

Long-Range Trends In Use

The major cause of recent shortages is the tremendous increase in demand for water. This results from several long-term developments, including population growth, industrial expansion and changes in agricultural methods.

Total water use has more than doubled, on the average, about every twenty-five years. In 1900 a total of about 40 billion gallons per day were used by the farms, homes, factories and business establishments of the United States. This amounted to approximately 526 gallons per capita daily. By 1955, total use was estimated to exceed 240 billion gallons per day--an increase of some 200 billion gallons, or 500 per cent. The per capita use was 1,455 gallons per day--a 177 per cent increase.

If a doubling of water use occurs from 1950 to 1975, as projected, it will result in a total withdrawal of water about equal to the estimated maximum supply available for development under present conditions. This is not necessarily a cause for alarm. New sources of usable water may be developed. Better conservation practices can be followed, pollution can be reduced, better techniques of re-use can be devised, and improved patterns of consumption can be encouraged. However, all of this will call for considerable effort. For example, only about 50 per cent of the municipal pollution and about 50 per cent of the organic load in industrial wastes is now removed before discharge into streams. Without expensive treatment this pollution makes the water unusable downstream for many purposes. It may be necessary, moreover, to revise the methods of allocating water between competitive uses. More research is needed on methods of removing minerals from sea water. Data are required on current supply, so that use can be more carefully planned.

It is estimated that new water uses--for example for air conditioning, automatic washing machines and dishwashers--will increase per capita consumption in homes and commercial establishments using the public supply (largely municipal waterworks) to 175 gallons per day, compared with 148 gallons now. Approximately 85 per cent of the total increased demand, as projectdd, will be industrial and municipal, particularly for steam electric power plants, which are expected to account for 50 per cent of the total increase.

Although almost half of the water now used is devoted to irrigation, the annual rate of increase in use for this purpose is much less than it was earlier in the century. That is significant, because irrigation is one of the most consumptive uses of water. Approximately two-thirds of the water withdrawn for irrigation is evaporated or is transpired by vegetation. Cities and industrial users, on the other hand, return as waste about 90 per cent of the water withdrawn for them. Much of this is clean enough to be used for certain purposes or can be treated to make it usable.

Current Water Use

Of the total daily use of water at present, about 7 per cent is provided by municipal water supplies. Forty-six per cent is supplied by irrigation projects, and 47 per cent from private sources.

An average of about 5 per cent of total per capita daily consumption is devoted to domestic use, estimated to vary from as high as 180 gallons in larger cities to 60 gallons in small communities or rural areas with running water, and even as low as 10 gallons in rural areas without running water. Irrigation and industrial uses account for virtually all the rest, and in about equal amount. Some indication of the reasons behind the great industrial demand can be gathered from the following examples of the water needed to produce various manufactured products:

Product	Unit	Gallons of water Required per unit
Gasoline	Gallon	10
Beer	Gallon	300
Coke	Ton	3,600
Finished steel	Ton	65,000
Synthetic rubber	Ton	600,000

Total water use in 1955 was about one-fifth greater than in 1950. Thus the increase continued at about the same rate that has prevailed in recent times--a doubling of the amount used every twenty-five years. Of the major uses, the largest increase--43 per cent--came in self-supplied industrial use. The increase in the use of public supplies was just the same as the national average increase for total use. The increase in irrigation use was slight--only 3 per cent. There was a reported decrease of about a third in rural uses excluding irrigation. One factor contributing to this, however, is the fact that rural home and farm uses are defined by the Geological Survey in terms of homes not served by public water supply systems, and such systems were expanded in the five-year period to take in homes formerly not served.

Regional Water Problems

The practical problems of supplying the required quantity and quality of water are regional rather than national. Our two major geographic regions in terms of water supply, as usually defined, are the thirty-one humid eastern states and the seventeen arid, western states. The East has a good supply for the forseeable future. The West has a more limited supply, and will face difficult problems as irrigation is expanded and further industrialization develops. The Pacific Northwest, however, has an abundance of water--two-thirds of the total western supply--and so, for certain purposes, should be considered as a separate region or subregion. It is also useful to consider the South as a separate region. Its supply generally resembles that of the rest of the eastern half of the country, but certain factors--such as less industrialization and urbanization and greater supplemental irrigation--distinguish it.

Although they are useful in considering the total water picture, neither the major division between East and West nor the division into the four areas just mentioned indicates the tremendous variations that exist between states within regions. These variations obviously will be reflected in the scope of state water resource programs and in the size and character of the administrative organizations developed for them. Some states in the arid West are better supplied with water than some in the humid East. Moreover, significant differences in supply may exist among areas of the same state. Northern and southern California, for example, have appreciably different problems. Thus California, in this respect, has faced a more complex water administration problem than Ohio, for example, where statewide supply is fairly well distributed. The map on page 7 summarizes the regional water use in 1955 for the four regions noted and for the major divisions of arid western and humid eastern states. Table 1 on page 4 presents similar data for each of the states.

Within a given supply situation, the types of predominant uses to which water is put are an important factor in affecting the total water resource situation. In 1955, about 96 per cent of the total irrigation use of water was in the western states, and about 84 per cent of the water withdrawn by industry was in the East. Not only is irrigation highly consumptive in its

use of water, but in states where it is extensively practiced it results in a larger per capita withdrawal than does industrial use. In 1950 the western states--with only a fourth larger total runoff of their per capita rate of withdrawal four times as large as that of the East, and their per capita consumption use was almost thirty times as large as the East's, as shown in the following summary of regional and per capita water supply and use:

Table 1 -- Estimated Withdrawal Use of Water in the Western States, 1955 (In millions of gallons per day)

	Rural[1]	Public Supplies[2]	Self-supplied Industrial[3]	Irrigation[4]	Total[5]
WEST					
Arizona	14	131	157	6,910.0	7,212
California	111	1,290	6,280	23,025.0	30,706
Colorado	46	228	505	6,303.2	7,082
Kansas	70	205	1,220	740.0	2,235
Montana	36	94	215	9,756.4	10,101
Nebraska	73	220	490	2,550.0	3,333
Nevada	8	65	53	1,916.8	2,043
New Mexico	20	93	54	2,514.0	2,681
North Dakota	35	26	226	121.4	408
Oklahoma	50	185	516	225.0	976
South Dakota	50	62	105	27.8	245
Texas	167	1,050	5,730	10,229.0	17,176
Utah	18	174	240	4,170.3	4,602
Wyoming	19	37	60	11,032.2	11,148
TOTALS	717	3,860	15,851	79,521.1	99,948

[1]Not including irrigation.

[2]Not including irrigation. "Public Supplies" indicates water from public water supply systems, primarily municipal waterworks.

[3]From private sources including brackish or saline water.

[4]Includes loss during conveyance but not in reservoir.

[5]Not including water power. Totals do not equal sum of other columns because of rounding.

Source: U. S. Geological Survey. Estimated Use of Water in the United States, 1955. Circular 398, 1957.

	Regional (billion gallons per day)		Per Capita (gallons per day)	
	17 western states	31 eastern states	17 western states	31 eastern states
Runoff (long term average)	350	900	10,000	8,000
Fresh water withdrawal	95	75	2,700	650
Consumptive use	60	7	1,700	60

The Western States

The seventeen western states have access to an average of about one-fourth of the total national water supply in terms of surface runoff. Two-thirds of this is discharged by the Columbia River and other Pacific Northwest streams. In 1955, as indicated below, 82 per cent of all water withdrawn in the West was for irrigation.

	Per cent
Withdrawn for municipal supplies	4
Withdrawn by rural users	1
Withdrawn by industry from private sources	13
Withdrawn by irrigators	82
Total	100

Population concentration in the West remains much less than in the East. Except in California, where 80 per cent is urban, only slightly more than half of the population is urban. Again excepting California, personal income from manufacturing is only about 15.3 per cent of total personal income; in California, about 28 per cent. But population is increasing more rapidly in the West than in the East. From 1950 to 1955, while the eastern population increased by only 7.3 per cent, the West gained 13.2 per cent. Urban population also in increasing more rapidly. From 1940 to 1950, the western increase was about 45 per cent, compared with 14.4 per cent in the East. Manufacturing employment in the West increased by about one-third from 1947 to 1954; nationally it rose about 10 per cent. Self-supplied industrial use of water in the western states increased 373 per cent from 1950 to 1955, irrigation use 41 per cent, and municipal 36 per cent. These increases are all above the national average rise of one-fifth for all water uses. Only in rural use--representing 1 per cent of total water used in the West--was there a decrease.

CHAPTER II

STATE WATER RESOURCE PROGRAMS AND AGENCIES [2/]

Although certain patterns have emerged in state administration of water resources, there is a wide diversity that reflects varying traditions, needs and demands. Frequently, the particular focus of interest when new functions are assigned to agencies influences or determines the location of the authority granted. In establishing supervision of dams and other river encroachments, the function may be assigned to a division of navigation or rivers and harbors if the emphasis is on keeping rivers open for navigation. It may be assigned to a flood control agency if the major concern is maintenance of a clear channel to carry away flood waters; to a general water agency if water supply is foremost; or to a public service commission if electric power generation is of primary importance. Or the authority may be shared by several such agencies.

When the early pollution control statutes were adopted, the problem was viewed primarily as a public health matter, for the connection between water pollution and devastating epidemics was close. Authority to enforce laws regulating pollution was lodged in departments of public health--usually in a division along with other sanitary engineering functions such as rodent control, malaria and mosquito control, food and milk sanitation, and camp sanitation. As conditions changed it became apparent that other considerations required attention. Special problems were met in some states by giving pollution control authority in particular areas to other agencies--to the fish and game departments to regulate pollution affecting fish, to divisions of mines and minerals to regulate pollution created by mining or oil well drilling, to highway departments to curb pollution growing out of misuse of state highway drains, and to departments of agriculture to control pollution injurious to livestock. Frequently the authority became so diffused that was necessary to create a new interdepartmental water pollution control commission to coordinate the efforts of all the agencies involved. This has been done in more than half the states. What started as a fairly uniform approach has been altered fundamentally by changing conditions.

Contributing to the tendency to meet new needs with new agencies has been the concern of different affected groups. Thus sportsmen's groups in general favor an independent fish and game agency rather than one integrated into an overall department of natural resources. In states with significant commercial navigation or pleasure boating, groups particularly interested in those activities may advocate a special navigation or inland waterways agency.

Chapter 1, on water supply and use, alluded to another important factor that influences the administrative structure. Varying geographic conditions, it noted, present substantially different problems, and call for a variety of organizational patterns. In the eastern states, the emphasis has been not so much on total supply as on purity of available supply, and there is a fairly well developed group of pollution control agencies. In the West, with its major emphasis on adequate water supply per se, the boards or the state engineers administering water rights laws tend to be the major water agencies.

2/ Council of State Governments. State Administration of Water Resources. Chicago, 1957.

Interest in reorganization of state administration has resulted in some states in the functional consolidation of numbers of independent agencies, including water agencies. In some states, as a result, the elements of coordinated natural resourse or water resource administration have begun to emerge. Thus a number of water resource divisions now exist in unified or partially unified natural resource departments. In other cases, independent water agencies with at least some overall jurisdiction have been established.

General Characteristics

State programs in the water resource field are primarily regulatory in nature, with some research and informational functions and limited developmental projects. Almost all of the states have a division of environmental sanitation or sanitary engineering in the state department of health, charged with supervision of public water supplies and sewage disposal and frequently, also, with general pollution abatement control functions. In twenty-six states there is also a pollution control board or commission. These boards have been established for a variety of reasons: among other functions to act as hearing agencies and to coordinate the pollution abatement powers of several agencies. Most of the states have game and fish departments or small water development projects. In seventeen states the state geological survey or the state geologist has responsibility for gathering hydrologic data as well as data on mineral resources and for topographic mapping. In eight western states the state engineer's office is primarily responsible for the administration of water rights and also, generally, for hydrologic data gathering. In five states there are waterways or navigation agencies, and in four states special flood control agencies. In a number of states several specialized, independent boards and commissions, often partly or wholly ex officio, meet infrequently to fulfill specified legal responsibilities.

In addition to the specialized agencies there are general water resource agencies, with varying functions, in a number of states. Twenty states have independent general water resource agencies. Seven of these states and sixteen others have water resource divisions within departments of conservation or other agencies.

A number of water resource activities, of course, are performed as secondary functions of agencies not primarily concerned with them. Frequently state highway departments contribute to the gathering of hydrologic data for use in connection with highway planning. Planning and development agencies in numerous states carry on some water programs. These consist primarily of gathering and disseminating facts on water supply and use and other hydrologic data, but in a few cases include some planning for water resource development. Agencies supervising the operation of mines, oil wells and other extractive industries may regulate pollution producing activities. In a fourth of the states, the state utility commissions authorize hydroelectric developments. This authorization, however, is usually related to electricity supply and demand and other economic factors rather than to water resource development as such; the latter interest may be represented by a requirement that a state water resource agency--such as the state engineer or the division of waterways--approve the diversion of water or the obstruction to a stream, if that is involved, or that it consider water resource implications in other ways. The state soil conservation program involves soil and water conservation--largely by land treatment methods but frequently also by small retaining dams and by reservoirs and ponds. This is an important water resource function, but the total program as presently established is an integrated agricultural undertaking, and it is primarily a local district activity. In almost half the states the state soil conservation committee is responsible for acting on applications for projects under the new Small Watershed and Flood Control Act. In five states the departments of agriculture and in two

others the divisions of soil in departments of conservation have this responsibility, and in eight, special advisory committees have been established. In eleven states reports prepared by the Army Corps of Engineers under the Flood Control Acts are referred to agencies not primarily concerned with water resources. Most frequently the agency is the highway department.

Water Rights Administration

Two different patterns of water rights law have developed in the United States, and they require different administrative patterns. The riparian doctrine is based on common law, and court adjudication generally settles any disputes that arise. The appropriation doctrine, on the other hand, is a statutory system, and usually is accompanied by fairly elaborate administrative mechanisms as well as right of appeal to court adjudication. The seventeen western states all accept appropriation principles or both appropriation and riparian; the thirty-one eastern states, with the exception of Mississippi, all follow riparian doctrine.

Originally the common law or riparian doctrine applying to surface waters gave holders of land bordering on water (riparian land) the right to have the water cross their property in its natural flow, undiminished in quantity or quality; any use had to be adjusted to this principle. In most states the courts modified the riparian doctrine by applying the principle of reasonable use--giving a riparian owner the right to a "reasonable use" of water even though the flow was thereby diminished. Reasonable use is defined by the courts generally to include domestic consumption and stock watering and, variously, to include or exclude industrial use.

The appropriation doctrine makes it possible for nonriparian users to obtain a right to use a certain quantity of water by obtaining a permit or a court order and by meeting certain requirements. Only water not already used by riparian users is available for appropriation, except in eight western states--Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah and Wyoming--where riparian rights applicable to surface waters are not recognized. When available water is insufficient to meet all claims, prior claims hold precedence. Thus the system is often called "prior appropriation". In most western states, a system of preference for different classes of users in granting original appropriations is established.

Customarily separate provisions apply to ground water. The basic common law principle bases use entirely on land ownership, and it permits unlimited use. In a number of states this has been modified by the application of a reasonable use proviso by the courts. Prior appropriation principles apply to ground water in eleven western states--Idaho, Kansas, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Utah, Washington and Wyoming.

In states that follow common law, both surface and ground water use has been regulated under various circumstances. The most common type of regulation has been the establishment of permit systems to allow water to be diverted or pumped for certain purposes and yet to retain control of these uses in times of scarcity. The permits do not affect basic riparian rights and do not create new rights, as an appropriation system does; rather they are a regulatory device.

Each western state except Montana has established some centralized mechanism for the administration of appropriation rights. The most common procedure for acquiring new surface water rights requires the intending appropriator to file an application for a permit with the administrative agency. The permit is

usually supplemented by a certificate after the applicant has completed construction of the necessary works, and by a license when water is actually diverted to use in accordance with the terms of ther permit. There may be provision for administrative hearings on contested applications. In addition to a statutory procedure for appropriation, appropriators in Idaho and Montana can acquire rights by actually diverting water and applying it to beneficial use. In Colorado the only method available for appropriation is to commence construction of works and file a claim with the State Engineer. If the claim is in order, the State Engineer accepts it and a reproduction is filed in appropriate county records. Final adjudication is vested in the courts.

In the eleven western states which have applied appropriation principles to ground water, the procedures for acquiring rights are similar to those followed for surface water; the differences between surface and ground water procedures are related to physical variations in methods of withdrawal. In Wyoming a person intending to acquire a right of beneficial use of ground water registers his claim after completion of his well. The State Engineer merely accepts and records the registration. Pending court adjudication, claims of preexisting and newly acquired rights are simply placed on the record.

It is often necessary to adjudicate conflicting rights. In four states--Colorado, Idaho, Montana and Texas--no authority is lodged in the administration agency to participate in this adjudication. In New Mexico, adjudication is conducted exclusively by the courts, but the State Engineer may initiate an action to get conflicts settled. Under the "Oregon method" of administrative participation, the administrative agency makes a determination which to be effective, must be affirmed by a court order. Arizona, Nevada, Utah and Washington also follow this procedure. The "Wyoming method"--followed by Kansas and Nebraska--allows the administative agency to make a determination which is final unless appealed to the courts. Ground water statutes in general follow surface water adjudication procedures, although the trend seems to be toward administrative determination followed by court adjudication.

The western states have established elaborate mechanisms for administration of licenses or adjudication. Usually the central state agency supervises or cooperates with regional and district supervisors to see that diversions are legal. Watermasters usually oversee diversions in individual streams, requiring closing of headgates by junior appropriators when water supply is insufficient. Administration of ground water rights is invoked, as a rule, only when water supply is overdrawn so that a "critical" ground water area results. If determined necessary, authorized controls--such as closing an area to further appropriation or restricting current withdrawals--can be put into effect. Well drillers are licensed and well drilling may be regulated and supervised in a number of western states--Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah and South Dakota. This not only helps to control water use but provides valuable data.

In three of the western states not having ground water appropriation statutes, certain regulation of ground water use is provided for. In Texas ground water conservation districts may regulate water practices for areas over an underground reservoir designated by the Board of Water Engineers. They can issue permits and regulate production of water from wells capable of producing more than 100,000 gallons per day. In Arizona the State Land Commission can designate "critical ground water areas"; no irrigation well having a capacity in excess of 100 gallons per minute can then be installed for the irrigation of the new land. The 1957 session of the Colorado General Assembly enacted the first comprehensive underground water law for that state. It created a new agency, the Ground Water Commission to

designate critical ground water districts where withdrawal threatens to exceed normal replenishment. All areas so designated are closed to further development of ground water resources, and existing uses may be regulated to conserve supplies for maximum beneficial use. Local district advisory boards are provided for to cooperate with the commission and the State Engineer in the administration of the act.

CHAPTER III

PERTINENT WATER LAW PROVISIONS IN NEVADA

The following sections or condensation of sections in the Nevada Revised Statutes contain water law provisions that have a bearing upon the subject of this study. It appears advisable to include these provisions in the study in order to illustrate for the reader the broad characteristics of Nevada's water law, to show that the State Engineer may grant water rights for any beneficial use, and to set forth the procedure by which water rights are granted.

Sec. 532.120 RULES AND REGULATIONS; RULES GOVERNING CONTESTS.

1. The state engineer is empowered to make such reasonable rules and regulations as may be necessary for the proper and orderly execution of the powers conferred by law.

2. The state engineer shall have power to make rules, not in conflict with law, governing the practice and procedure in all contests before his office, to insure the proper and orderly exercise of the powers granted by law, and the speedy accomplishment of the purposes of chapter 533 of NRS. Such rules of practice and procedure shall be furnished to any person upon application therefor.

Sec. 533.025 WATER BELONGS TO PUBLIC. The water of all sources of water supply within the boundaries of the state, whether above or beneath the surface of the ground, belongs to the public.

Sec. 533.030 APPROPRIATION FOR BENEFICIAL USE. Subject to existing rights, all such water may be appropriated for beneficial use as provided in this chapter and not otherwise.

Sec. 533.035 BENEFICIAL USE: BASIS, MEASURE AND LIMIT OF RIGHT TO USE. Beneficial use shall be the basis, the measure and the limit of the right to the use of water.

Sec. 533.040 WATER USED FOR BENEFICIAL PURPOSES TO REMAIN APPURTENANT TO PLACE OF USE; EXCEPTIONS. All water used in this state for beneficial purposes shall remain appurtenant to the place of use; provided:

1. That if for any reason it should at any time become impracticable to use water beneficially or economically at the place to which it is appurtenant, the right may be severed from such place of use and simultaneously transferred and become appurtenant to other place or places of use, in the manner provided in this chapter, and not otherwise, without losing priority of right heretofore established; and

2. That the provisions of this section shall not apply in cases of ditch or canal companies which have appropriated water for diversion and transmission to the lands of private persons at an annual charge.

Sec. 533.045 RIGHT TO DIVERT CEASES WHEN NECESSITY FOR USE DOES NOT EXIST. When the necessity for the use of water does not exist, the right to divert it ceases, and no person shall be permitted to divert or use the waters of this state except at such times as the water is required for a beneficial purpose.

Sec. 533.050 BENEFICIAL USE OF WATER DECLARED A PUBLIC USE; EMINENT DOMAIN. The beneficial use of water is hereby declared a public use, and any person may exercise the right of eminent domain to condemn all lands and other property or rights required for the construction, use and maintenance of any works for the lawful diversion, conveyance and storage of waters.

Sec. 533.055 STORAGE OF WATER FOR A BENEFICIAL PURPOSE; CLAIMING, DIVERSION OF WATER TURNED INTO NATURAL CHANNEL, WATERCOURSE. Water may be stored for a beneficial purpose. Water turned into any natural channel or watercourse by any person entitled to the use thereof, whether stored in Nevada or in an adjoining state, may be claimed for beneficial use below, and diverted from the channel or watercourse by such person, subject to existing rights, due allowance for losses to be made, as determined by the state engineer.

Sec. 533.060 REGULATIONS AS TO USE, APPROPRIATION OF WATER; ABANDONMENT OF RIGHTS; ACQUISITION OF PRESCRIPTIVE RIGHT NOT PERMITTED.

1. Rights to the use of water shall be limited and restricted to so much thereof as may be necessary, when reasonably and economically used for irrigation and other beneficial purposes, irrespective of the carrying capacity of the ditch. All the balance of the water not so appropriated shall be allowed to flow in the natural stream from which such ditch draws its supply of water, and shall not be considered as having been appropriated thereby.

2. In case the owner or owners of any such ditch, canal, reservoir, or any other means of diverting any of the public water shall fail to use the water therefrom or thereby for beneficial purposes for which the right of use exists during any 5 successive years, the right to so use shall be deemed as having been abandoned, and any such owner or owners shall thereupon forfeit all water rights, easements and privileges appurtenant thereto theretofore acquired, and all the water so formerly appropriated by such owner or owners and their predecessors in interest may be again appropriated for beneficial use the same as if such ditch, canal, reservoir or other means of diversion had never been constructed, and any qualified person may appropriate any such water for beneficial use.

3. No prescriptive right to the use of such water or any of the public water appropriated or unappropriated can be acquired by adverse user or adverse possession for any period of time whatsoever, but any such right to appropriate any of such water shall be initiated by first making application to the state engineer for a permit to appropriate the same as provided in this chapter and not otherwise.

Sec. 533.065 STANDARDS OF MEASUREMENT.

1. A cubic foot of water per second of time shall be the legal standard for the measurement of water in this state.

2. The unit of volume shall be an acre-foot defined as 43,560 cubic feet.

3. Where necessary to transpose miner's inches to cubic feet per second, 1 cubic foot per second shall be considered equal to 40 miner's inches; but the term "miner's inch" shall not be used henceforth in any permit or adjudicated right issuing from the office of the state engineer without first naming the amount in cubic feet per second or in acre-feet.

Sec. 533.070 QUANTITY OF WATER APPROPRIATED LIMITED TO AMOUNT REASONABLY REQUIRED FOR BENEFICIAL USE; DUTIES OF STATE ENGINEER IN CONNECTION WITH WATER DIVERTED, STORED FOR IRRIGATION PURPOSES.

1. The quantity of water from either a surface or underground source which may hereafter be appropriated in this state shall be limited to such water as

2. Where the water is to be diverted for irrigation purposes, or where the water is to be stored for subsequent irrigation purposes, the state engineer in determining the amount of water to be granted in a permit to appropriate water shall take into consideration the irrigation requirements in the section of the state in which the appropriation is to be made. The state engineer shall consider the duty of water as theretofore established by court decree or by experimental work in such area or as near thereto as possible. He shall also consider the growing season, type of culture, and reasonable transportation losses of water up to where the main ditch or channel enters or becomes adjacent to the land to be irrigated, and may consider any other pertinent data deemed necessary to arrive at the reasonable duty of water. In addition, in the case of storage of water, reservoir evaporation losses should be taken into consideration in determining the acre-footage of storage to be granted in a permit.

Sec. 533.075 ROTATION IN USE OF WATER. To bring about a more economical use of the available water supply, it shall be lawful for water users owning lands to which water is appurtenant to rotate in the use of the supply to which they may be collectively entitled; or a single water user, having lands to which water rights of a different priority attach, may in like manner rotate in use, when such rotation can be made without injury to lands enjoying an earlier priority, to the end that each user may have an irrigation head of at least 2 cubic feet per second.

Sec. 533.085 VESTED RIGHTS TO WATER NOT IMPAIRED.

1. Nothing contained in this chapter shall impair the vested right of any person to the use of water, nor shall the right of any person to take and use water be impaired or affected by any of the provisions of this chapter where appropriations have been initiated in accordance with law prior to March 22, 1913.

2. Any and all appropriations based upon applications and permits on file in the state engineer's office on March 22, 1913, shall be perfected in accordance with the laws in force at the time of their filing.

Sec. 533.090 DETERMINATION OF RELATIVE RIGHTS OF CLAIMANTS TO WATER OF STREAM, STREAM SYSTEM: PETITION; ORDER OF STATE ENGINEER; PRIORITY OF DETERMINATION.

1. Upon a petition to the state engineer, signed by one or more water users of any stream or stream system, requesting the determination of the relative rights of the various claimants to the waters thereof, the state engineer shall, if upon investigation he finds the facts and conditions justify it, enter an order granting the petition and shall make proper arrangements to proceed with such determination.

2. The state engineer shall, in the absence of such a petition requesting a determination of relative rights, enter an order for the determination of the relative rights to the use of water of any stream selected by him, commencing on the streams in the order of their importance for irrigation. As soon as practicable after the order is made and entered, the state engineer shall proceed with such determination as provided in this chapter.

3. A water user upon or from any stream or body of water shall be held and deemed to be a water user upon the stream system of which such stream or body of water is a part or tributary.

As soon as the state engineer has made an order granting the petition or selecting the streams upon which the determination of rights is to begin, he is required to prepare a notice setting forth the fact of the entry of the order and of the pendency of the proceedings. NRS 533.095.

At the time set in the notice, the state engineer is required to begin an investigation of the flow of the stream and of the ditches diverting water, and of the lands irrigated therefrom, and he must gather such other data and information as may be essential to the proper determination of the water rights in the stream. NRS 533.100.

The state engineer is required to give notice of the commencement of taking of proofs on the filing of measurements, maps, and determinations. NRS 533.110.

Petitions to intervene may be filed by interested persons who are not served. NRS 533.130.

Any person claiming any interest in the stream system involved in the determination of relative rights to the use of water, whether claiming under vested right or under permit from the state engineer, may object to any finding, part or portion of the preliminary order of determination made by the state engineer. NRS 533.145.

The state engineer is required to fix a time and place for the hearing of objections. NRS 533.150.

As soon as practicable after the hearing of objections to the preliminary order of determination, the state engineer is required to make and cause to be entered a record in his office an order of determination defining the several rights to the waters of the stream or stream system. NRS 533.160.

As soon as practicable thereafter, a certified copy of the order of determination, together with the original evidence and transcript of testimony filed with, or taken before, the state engineer, shall be filed with the clerk of the county, as ex-officio clerk of the district court. Upon the filing of the certified copy of the order, evidence and transcript with the clerk of the court in which the proceedings are to be had, the state engineer is required to procure an order from the court setting the time for hearing. NRS 533.165.

Persons who are aggrieved or dissatisfied with the order of determination of the state engineer are required to file with the clerk of the court notice of exceptions to the order of determination. NRS 533.170.

After the hearing the court is required to enter a decree affirming or modifying the order of the state engineer. NRS 533.185.

Appeals from such decree may be taken to the supreme court by the state engineer or any party in interest in the same manner and with the same effect as in civil cases. NRS 533.200.

From and after filing of the order of determination in the district court, the distribution of water by the state engineer is under the supervision and control of the district court. NRS 533.220.

In any suit which may be brought in any district court for the determination of a right or rights to the use of water of any stream, all persons who claim the

right to use the waters of such stream and the stream system of which it is a part shall be made parties. NRS 533.240.

Upon the final determination of the relative rights in and to the waters of any stream system, the state engineer shall issue to each person represented in the determination, a signed certificate setting forth the date of the priority, the extent and purpose of the right, the name of the owner of the right, etc. NRS 533.265.

Sec. 533.325 CORPORATIONS, PERSONS DESIRING TO APPROPRIATE WATER, CHANGE PLACE OF DIVERSION, MANNER OR PLACE OF USE TO MAKE APPLICATIONS TO STATE ENGINEER FOR PERMITS. Any corporation authorized to do business in this state, or any person who has legally declared his intention to become a citizen of the United States, over the age of 21 years, desiring to appropriate any of the public waters, or to change the place of diversion, manner of use or place of use of water already appropriated shall, before performing any work in connection with such appropriation, change in place of diversion or change in manner of place of use, make an application to the state engineer for a permit to make the same.

Sec. 533.330 APPLICATION LIMITED TO WATER OF ONE SOURCE FOR ONE PURPOSE; INDIVIDUAL DOMESTIC USE MAY BE INCLUDED. No application shall be for the water of more than one source to be used for more than one purpose; but individual domestic use may be included in any application with the other use named.

Sec. 533.345 APPLICATION FOR PERMIT TO CHANGE PLACE OF DIVERSION, MANNER OF USE OR PLACE OF USE: CONTENTS. Every application for a permit to change the place of diversion, manner of use or place of use of water already appropriated shall contain such information as may be necessary to a full understanding of the proposed change, as may be required by the state engineer.

All applications for permits shall be accompanied by maps, drawings, and data. NRS 533.350.

The state engineer is required to return defective applications for correction, and if the corrected application is returned within 60 days, the application does not lose its priority of filing. NRS 533.355.

Within 30 days after the application is filed, the state engineer is required to publish notice of such application in the newspaper. NRS 533.360.

Within 30 days from the date of the last publication of the notice of application, any person may file with the state engineer a written protest against the granting of the application. The state engineer is required to consider the protest, and may hold hearings and require the filing of such evidence as he may deem necessary. NRS 533.365.

The state engineer is required to approve all applications made in proper form which contemplate the application of water to beneficial use, and where the proposed use or change does not tend to impair the value of existing rights, or to be otherwise detrimental to the public welfare. Applications must be approved or rejected within one year from the final date for filing protest. NRS 533.370.

Before either approving or rejecting the application, the state engineer

may require such additional information as will enable him to guard the public interest properly. NRS. 533.375.

The state engineer is required to set times for beginning and completion of work, and to set a time prior to which the complete application of water to a beneficial use must be made, which time shall not exceed ten years from the date of the approval. He may limit the applicant to a less amount of water than that applied for, and to a less period of time for the completion of work, and he may extend the time within which construction work shall begin and be completed. NRS 533.380.

Persons holding permits from the state engineer are required to file statements of progress of work with the state engineer. NRS 533.390.

The state engineer may require proofs of good faith and diligence in perfecting the appropriation. NRS 533.395.

Any person holding a permit is required to file a verified statement with the state engineer setting forth certain information and proving the amount of water beneficially used. NRS 533.400.

The state engineer may require maps to accompany the proof of beneficial use statement. NRS 533.405.

The state engineer is required to issue a certificate of appropriation after proof of perfection of the application. NRS 533.425.

Every permit to appropriate water, and every certificate of appropriation granted under any permit by the state engineer is subject to existing rights and to the decree and modification thereof entered in such adjudication proceedings, and is subject to regulation and control by the state engineer and the water commissioners. Upon any stream or stream system that has not been adjudicated and upon which the state engineer has heretofore granted a permit to appropriate water therefrom, any and all such permitted rights to the use of water so granted are subject to regulation and control by the state engineer. NRS 533.430.

Sec. 533.450 ORDERS, DECISIONS OF STATE ENGINEER SUBJECT TO JUDICIAL REVIEW: PROCEDURE; APPEALS; APPEARANCE OF ATTORNEY GENERAL.

1. Any person feeling himself aggrieved by any order or decision of the state engineer, acting in person or through his assistants or the water commissioner, affecting his interests, when such order or decision relates to the administration of determined rights or is made pursuant to NRS 533.270 to 533.445, inclusive, may have the same reviewed by a proceeding for that purpose, insofar as may be in the nature of an appeal, which shall be initiated in the proper court of the county in which the matters affected or a portion thereof are situated; but on stream systems where a decree of court has been entered, the action shall be initiated in the court that entered the decree. Such order or decision of the state engineer shall be and remain in full force and effect unless proceedings to review the same are commenced in the proper court within 30 days following the rendition of the order or decision in question and notice thereof is given to the state engineer as provided in subsection 3.

2. The proceedings in every case shall be heard and tried by the court, and shall be informal and summary, but full opportunity to be heard shall be had before judgement is pronounced.

3. No such proceedings shall be entertained unless notice thereof, containing a statement of the substance of the order or decision complained of, and of the manner in which the same injuriously affects the petitioner's interests, shall have been served upon the state engineer, personally or by registered mail, at his office at the state capital within 30 days following the rendition of the order or decision in question. A similar notice shall also be served personally or by registered mail upon the person or persons who may have been affected by such order or decision.

4. Where evidence has been filed with, or testimony taken before, the state engineer, a transcribed copy thereof, or of any specific part of the same, duly certified as a true and correct transcript in the manner provided by law, shall be received in evidence with the same effect as if the reporter were present and testified to the facts so certified. A copy of the transcript shall be furnished on demand, at actual cost to any person affected by such order or decision, and to all other persons on payment of a reasonable amount therefor, to be fixed by the state engineer.

5. No bond shall be required except when a stay is desired, and the proceedings herein provided for shall not be a stay unless, within 5 days following the service of notice thereof, a bond shall be filed in an amount to be filed by the court, with sureties satisfactory to such court, conditioned to perform the judgment rendered in such proceedings.

6. Costs shall be paid as in civil cases brought in the district court, except by the state engineer or the state.

7. The practice in civil cases shall apply and be consistent with the informal and summary character of such proceedings, as provided in this section.

8. Appeals may be taken to the supreme court from the judgment of the district court in the same manner and with the same effect as in other civil cases, except that notice of appeal must be served and filed within 60 days from the entry of judgment.

9. The decision of the state engineer shall be prima facie correct, and the burden of proof shall be upon the party attacking the same.

10. Whenever it shall appear to the state engineer that any litigation, whether now pending or hereafter brought, may adversely affect the rights of the public in water, he shall request the attorney general to appear and protect the interests of the state.

Sec. 533.455 APPEALS BY STATE ENGINEER TO SUPREME COURT.

1. Whenever a decree determining and adjudicating the relative rights of the claimants to the use of water of a stream or stream system shall have been or may hereafter be entered in the district court pursuant to the provisions of this chapter, and the decree shall have become final and the state engineer shall have brought in that court any proceeding, either civil or of a criminal nature, concerning the administration of and for the enforcement of the provisions of the decree, and wherein the validity of the decree or any of its provisions shall be drawn in question by adversary parties and the decision or judgment of the court is that the decree or a part thereof is invalid or void, the state engineer shall be deemed a party in interest with the right to take an appeal from such decision or judgment to the supreme court.

2. Such appeal may be taken in the same manner and with the same effect as appeals in civil cases, except that notice of appeal shall be served and filed not later than 60 days from the entry of the decision or judgement.

Sec. 533.460 UNAUTHORIZED USE, WILLFUL WASTE OF WATER UNLAWFUL; PRIMA FACIE EVIDENCE. The unauthorized use of water to which another person is entitled, or the willful waste of water to the detriment of another, shall be a misdemeanor, and the possession or use of such water without legal right shall be prima facie evidence of the guilt of the person using or diverting it.

Sec. 533.465 INTERFERENCE WITH HEADGATES, WATER BOXES, WATER UNLAWFUL; PRIMA FACIE EVIDENCE.

1. Any person who shall willfully open, close, change or interfere with any lawfully established headgate or water box without authority, or who shall willfully use water or conduct water into or through his ditch which has been lawfully denied him by the state engineer, his assistants or water commissioners, shall be guilty of a misdemeanor.

2. The possession or use of water when the same shall have been lawfully denied by the state engineer or other competent authority shall be prima facie evidence of the guilt of the person using it.

Sec. 533.480 PENALTIES. Any person violating any of the provisions of NRS 533.010 to 533.475, inclusive, shall be guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than $25 nor more than $250, together with the costs, or by imprisonment in the county jail for not less than 10 days nor more than 6 months, or by both fine and imprisonment.

Sec. 533.485 "PUBLIC RANGE", "RANGE LIVESTOCK" DEFINED. As used in NRS 533.485 to 533.510, inclusive.

1. "Public range" means all lands belonging to the United States and to the State of Nevada on which livestock are permitted to graze, including lands set apart as national forests and lands reserved for other purposes.

2. "Range livestock" shall mean livestock which during the general period or season when they are being or are proposed to be watered at the place involved shall be subsisting chiefly or entirely by grazing on the public range.

Sec. 533.490 WATER FOR WATERING LIVESTOCK DECLARED TO BE A BENEFICIAL USE.

1. The use of water for watering livestock is hereby declared to be a beneficial use except as provided in NRS 533.495. Subject to such exception, the right to use water for that purpose may be acquired in the same manner as the right to use water for any other beneficial purpose.

2. On application to the state engineer for any such right, it shall not be necessary for the applicant to state or prove or for the state engineer to determine in cubic feet per second of time the quantity of water the use of which is applied for or granted, but in all such applications and in all proceedings connected therewith and, also, in all proceedings either before the state engineer or the courts relating to the proof or establishment of a vested right to use water for watering livestock, it shall be a sufficient measure of the quantity of the water to specify the number and kind of animals to be watered or which have been watered, as the case may be. This subsection is not intended to imply that prior to April 1, 1925, it was necessary to specify, prove or determine the quantity of water in cubic feet per second, but is meant only to remove for the future any uncertainty that may have existed as to such necessity.

Sec. 533.495 SUBSISTING RIGHTS NOT TO BE IMPAIRED. Whenever one or more persons shall have a subsisting right to water range livestock at a particular place in sufficient numbers to utilize substantially all that portion of the public range readily available to livestock watering at that place, no appropriation of water from either the same or a different source shall subsequently be made by another for the purpose of watering range livestock in such numbers and

in such proximity to the watering place first mentioned as to enable the proposed appropriator to deprive the owner or owners of the existing water right of the grazing use of such portion of the public range, or substantially to interfere with or impair the value of such grazing use and of such water right.

Sec. 533.500 DUTIES OF STATE ENGINEER CONCERNING APPROVAL, REJECTION OF APPLICATION.

1. Before approving any application for the right to use water for watering livestock, the state engineer shall determine, by examination on the ground or otherwise, that the right and use applied for will not contravene the policy of NRS 533.495. If he shall determine that the right applied for will contravene such policy, he must reject the application.

2. If the water applied for shall be along the course of or in the immediate vicinity of an established or customary driving route for moving livestock from one range to another, the state engineer may reject the application even if no previous right shall exist for any portion of such water, if he shall determine that such water will best subserve the public interests by being reserved for the watering of livestock while so being driven along such customary driving route.

Sec. 533.505 UNLAWFUL ACTS; PENALTIES.

1. Any person who, without the right so to do, shall, on two or more separate days during any season, water more than 50 head of livestock at the watering place at which another shall have a subsisting right to water more than 50 head of livestock, or within 3 miles of such place, with intent to graze the livestock so watered on the portion of the public range readily accessible to livestock watering at the watering place of such other person, shall be guilty of a misdemeanor, and on conviction thereof shall be punished by a fine not exceeding $500, or by imprisonment in the county jail not exceeding 6 months, or by both fine and imprisonment.

2. Each day's watering in violation of this section shall be deemed a separate offense.

3. Whenever, in any prosecution for such offense, it shall appear that the watering by the accused was not done at the watering place of another, but was done within 3 miles thereof, it shall be a sufficient defense for the accused to prove that he had no knowledge of the existence of such other watering place.

Sec. 533.510 PRIOR RIGHTS NOT AFFECTED. Nothing in NRS 533.485 to 533.510, inclusive, shall be construed to affect the validity of rights to the use of water for watering livestock acquired under the previously existing laws of this state or to impair any existing vested right to the use of water for that purpose.

CHAPTER IV

DISCUSSION AND RECOMMENDATIONS

Background of Legislative Action in 1957

What precipitated the introduction of Assembly Bill No. 152 during the 1957 Session of the Nevada Legislature? The following reasons and complications in Nevada's water laws prompted the Fish and Game Commission to endeavor to definitely establish by law that the use of water for fish and game purposes was a beneficial use, keeping in mind that the state engineer has granted water rights to the Commission in the past under certain conditions. In restoring and improving fishing conditions throughout the State, the Commission frequently encountered differences of opinion and interpretation as whether water used for the propagation of fish and wildlife was a beneficial use under the law.

1. During a residential sub-division development in Sparks, Nevada, considerable acreage having a water right was used. Due to the housing development, this water right came up for sale, and the Commission negotiated for its purchase in order to release this water down the Truckee River and into Pyramid Lake, to improve the spawning conditions for fisheries. The Commission was advised at that time by a power company official, that it would be foolish for the Commission to purchase this water right since fish and game usage was not considered a beneficial usage.

2. During the Washoe Project planning stage, the Commission requested a certain amount of water be left in the stream for fishery purposes and again it was informed that since fish and wildlife did not carry a beneficial use of water, a certain amount of water could not be designated for said purpose.

3. During the federal authorization of the Washoe Project, two million dollars was authorized for expenditure for the enhancement and improvement of wildlife and recreational resources. The Prosser Creek Dam, as now proposed, will require approximately one and a half million of these funds and will store surplus run-off water to be used as an exchange basis for the release of a 50 to 75 second-foot flow of water from Lake Tahoe at all times. When this proposal was originally conceived, it was with the understanding that the minimum 50 second-foot flow released from Tahoe would traverse the full length of the Truckee River and of that amount, 35 second-feet would be used below Derby Dam for the restoration of the spawning area between Derby and Pyramid Lake. However, under present water law, in order to appropriate water, the applicant must indicate its point of diversion and usage.

4. The Fish and Game Commission feels that in order to meet its responsibility for the restoration and development of fisheries in the State of Nevada, the biggest asset and possibilities lie in the construction of small reservoirs on some mountain streams which would provide small fishing lakes. Most of these streams, during spring run-off, merely flow out into the desert valleys and are lost for all beneficial uses. To justify the expenditure of money on the construction of these dams, the Commission felt it should know definitely that it had a right to appropriate such water for fish and wildlife purposes.

5. In the development of waterfowl areas, the Commission endeavors to utilize drainage water from irrigated projects or possibly purchase irrigation rights. There is some question on whether or not a water right approved for the irrigation of crops could be changed in its beneficial use to where said water right could be used for waterfowl marsh impoundments. There is some doubt whether or not the state engineer has a right to appropriate drainage or waste water for such a purpose. This complication holds true on the Stillwater Wildlife Management Area, Mason Valley Wildlife Management Area, Fernley Wildlife Management Area and Overton Wildlife Management Area. On Overton, the state engineer has approved a water right to the Commission based on all water passing a given point on the Muddy River, said point being below all possible beneficial use for private irrigation or other farm purposes. On Fernley, the permit from the state engineer's office merely grants authority to construct the necessary dam for impoundment of waste water. On Mason Valley, the Commission purchased an old irrigation right dating back into the 1800's. However said right was for irrigation of farm crops and much of the waterfowl land consisting of pot-holes and marshes have been stripped of any water right when said area was used as a cattle ranch. The need still exists for the irrigation of certain crops on this area, but the primary purpose is the establishment of additional marsh areas and ponds for waterfowl, making it desirable for the water purchased to be used in these areas along with irrigation.

6. The Commission has also contemplated big game water-hole development, which would consist mainly of isolated springs back in the mountainous areas. However, in order to protect the Commission's investment, the Commission felt that it should be clear cut by law that the Commission has authority to file on such water if said water has not been previously granted to someone else.

Under the present status of the water laws in Nevada, all the water can be appropriated from a stream, allowing an individual to completely dry up a stream for irrigation, power or other beneficial uses. In order to maintain the fishery resource in the State, the Commission feels that there needs to be some avenue whereby it can purchase or obtain a water right as granted to other beneficial users, and allow said water to remain in the stream bed for the protection of this great fisheries resource.

It was not the Commission's intent in requesting Assembly Bill No. 152 to be introduced, that it would be claiming beneficial use of water for wildlife purposes on water already appropriated or being used beneficially by someone else. The Commission feels that if fish and game are to progress and grow with the rest of the State, there is a definite need for this resource to be protected in the future. Since most of the water in the State of Nevada is already appropriated, it appeared to the Commission that the only way that such could be accomplished would be for the Commission to purchase said rights where economically feasible to do so and in the best interests of the people of Nevada.

It is to be noted that in August, 1958, Congress amended the Fish and Wildlife Coordination Act so as to provide general authority for the Federal agencies who construct water-resource projects to incorporate in project construction and operation plans the needed measures for fish and wildlife conservation. The relationship between such conservation and water-resources is now officially recognized by Federal law.

In an effort to resolve these problems, the Assembly Committee on Fish and Game introduced Assembly Bill No. 152 during the 1957 Session of the Nevada Legislature.

The bill was referred to a Joint Committee of Fish and Game, and Agriculture and Irrigation, and eventually died in that committee. The Joint Committee was loathe to recommend the enactment of the measure without a study being made, it was unfamiliar with Nevada's water laws, it felt that a different approach to the problem might be found without declaring in the law that the use of water for the propagation of fish and game was a beneficial use, and it felt that at the same time an approach could be found that would preclude the necessity of court action to determine whether such use was a beneficial use. Consequently, Assembly Resolution No. 22 was adopted, and memorialized the Legislative Counsel Bureau to make the study.

Pertinent Provisions in Nevada's Water Laws

Attention is directed to the letter of July 15, 1957, written by Mr. Edmund A. Muth, State Engineer. He states that the first two paragraphs of Assembly Resolution No. 22 are factually incorrect. In other words, the State Engineer has granted rights to use water for the propagation of fish and wildlife on the grounds that it is a beneficial use. The State Engineer has stated that when the Fish and Game Commission acquires land, water appurtenant thereto can be used legally for the propagation of fish and wildlife. The granting of water rights for such a use by the State Engineer has been done under the legal provisions described in Chapter III.

It is to be noted that there is only one specific beneficial use set forth in Nevada's statutes; namely, the watering of livestock, NRS 533.485-533.510. The water within the boundaries of the State of Nevada belongs to the people of the State, and may be appropriated for beneficial use in the manner provided by law. Water used for beneficial purposes remains appurtenant to the place of use, but if it becomes impractical to use it beneficially or economically at the place to which it is appurtenant, the right may be severed, transferred and become appurtenant to other places of use without losing priority of use. Water may be stored for a beneficial purpose. The quantity of water which is appropriated is limited to the amount reasonably required for the beneficial use to be served. Vested rights to the use of water cannot be impaired. By law, the State Engineer is required to determine the relative rights of the various claimants to the waters of any stream or stream system. The process for making such determinations is set forth in detail in the law, and is summarized in Chapter III of this study. Upon a final determination of the relative rights to the water, the State Engineer is required to issue a signed certificate to the proper owners setting forth their names, the date of the priority, the extent and purpose of the right, etc. All interested persons are given the opportunity to be heard. In due time the matter is brought before a district court and the court is required to enter a decree affirming or modifying the order of the State Engineer. Appeals from such decree may be taken to the Supreme Court by interested parties or by the State.

In short, the State Engineer is the key official in the granting of rights to make a beneficial use of water and what is a beneficial use in a given case is determined by the State Engineer in accordance with facts and justice after proper notice and hearings, and the determination is confirmed by the courts. This is the process used for allocating rights to use water in Nevada since 1907, and it appears to have worked well. It appears that the Nevada Legislature has been very wise in not writing a variety of beneficial uses and their

priorities into the law, and instead, has left such determinations to be made by the State Engineer and the courts in accordance with facts and justice. If a variety of beneficial uses and priorities had been written into the law, the matter would have been solidified, flexibility would have been lost, and a proper use denied from time to time. Such a system would have meant occasionally a benefit to only a few Nevada citizens and a detriment to many in a given case. Nevada is a growing state with rapidly expanding population in an era of great economic and scientific progress, and water must be put to the best beneficial use if such progress is to continue in this State. Water has always been of vital importance in the West, and the list of beneficial uses of water is expanding in our modern civilization. The needed flexibility could not be met with set provisions in the law; hearing procedures and determinations by the State Engineer and the courts appear to be the correct answer.

The General Problem

Nevada's water resource has and will continue to play an important part in the economic and industrial development of the State. While the nature of this resource is essentially continuous and renewable, it is becoming increasingly apparent that maximum sustained water utilization requires that wise methods of water use be developed. Water may be impounded, diverted, channelled through canals and ditches, collected in drainage ditches for return to the main stream, and piped through municipal and industrial water and waste systems. It is used for the growth of timber, irrigation, power production, spawning and habitat of fish, recreation including fishing, swimming and boating, mining, stock watering, domestic and industrial water supply, and for the disposal of sewage and wastes from industrial processes. In years past, it was used for log transportation and storage. Today, in uses primarily associated with recreation, it provides a vital link in the chain of Nevada tourist attractions.

Although nature provides the water resource in the form of rain and snow, water in this form is not necessarily suitable for all of its uses. It is man's responsibility to alter and control this resource in order that it will serve its best purposes. Many interests are involved, each being important, but this importance in each case is influenced by association with other interests. Only through a recognition of all interests in their proportion by all persons involved, will the resource be fully and wisely used.

One of the factors that becomes increasingly apparent as the water use problem is studied is that most of the important water demands either complement or conflict with one another. Concern is largely with those uses which, in their ultimate development, may be in conflict. These conflicts are of varying degrees, and depend to some extent on the stream system or water under consideration. The wise use of the water resource involves the control of these conflicting forces, and requires that they be understood and reconciled for the public good.

What is Being Done in the State of Washington?

Although the water resource is far larger and more complex in the State of Washington, the same problem exists as in the drier State of Nevada. In recognition of the need, Governor Arthur B. Langlie appointed a water policy committee with instructions to draft a water resource policy for the State. It is expected that this policy will be used as a guide for departments, agencies, the courts, and all others involved in water use and management activities within the State.

The Water Policy Committee, as appointed by Governor Langlie, consisted of:

Mr. William Galbraith, Director
Department of Conservation and Development

Mr. John A. Biggs, Director
Department of Game

Dr. J. A. Kahl, Acting Director
Department of Health

Mr. S. N. Omdahl, Director
Department of Agriculture

Mr. R. J. Schoettler, Director
Department of Fisheries

This Committee developed a proposed water policy, with the important objective of developing a physical plan for the full conservation, protection and utilization of the State's water resources both surface and ground, salt and fresh, to meet existing and potential water needs for all beneficial purposes and uses in all areas of the State so far as practicable.

What is Being Done in the State of Nevada?

The truth of the matter is that for many years the State Engineer in Nevada has been engaged in the work of conserving, protecting and utilizing the State's water resources, both surface and ground, and along with the courts, has endeavored to make determinations of water rights in such a manner as to meet existing and potential water needs for all beneficial purposes. This is nothing new in Nevada. The records of the State Engineer reveal that for a goodly number of years the State Engineer has granted water rights for the beneficial use of water for the propagation of fish and wildlife. When the Assembly Joint Committee on Fish and Game and Agriculture and Irrigation considered Assembly Bill No. 152 during the 1957 Session of the Nevada Legislature it recongized this fact. However, it was the desire of the Committee that an effort be made to evolve in the law some provision whereby it would be unnecessary for some citizen to endure the expense of a court proceeding in order to determine whether water appropriated for the propagation of fish and wildlife was a beneficial use. Hence, the Assembly ordered the current study. It appears that the enactment of a general water policy statement similar to that set forth at the beginning of this study would achieve the Committee's objective, and yet in no way change the processes and procedures followed by the State Engineer under the law at this time. It is to be noted carefully that the proposed water policy statement has wording that reaffirms existing rights; they will not be disturbed by the enactment of the statement. The big point in the statement is that it recognizes all beneficial uses, which is what the State Engineer has been doing for many years, and is doing now.

Recommendation

It is recommended that the 1959 Session of the Nevada Legislature enact a general water policy statement into law, similar or identical to that set forth at the beginning of this report.