

**Nevada State Water Plan
SUMMARY**

**Section 2
Institutional Framework for
Water Planning and Management**

Introduction

This section presents an overview of the institutional framework affecting water planning and management within the State. All entities involved with water planning, allocation, management and development issues must navigate their way through portions of this institutional framework in their decision-making process.

Statutory, Regulatory and Legal Considerations

This subsection provides a general summary of the major state and federal statutory, regulatory and legal constraints impacting water planning and management. Water quantity allocation and management; interstate water resource management; water quality protection and management; resource protection; flood protection and drought planning; and conservation are all important constraints to consider for a successful water plan.

Water Quantity Allocation and Management

Nevada Water Law. All waters within the boundaries of Nevada, whether above or beneath the ground surface, belong to the public and are managed on their behalf by the State. The State Engineer is responsible for the administration of Nevada Water Law, which ensures that these waters are managed so that sufficient quantities are available to preserve our quality of life and to protect existing water rights. Entities within the State can apply for the right to use that water. Like many of the western states, Nevada water law is founded on the doctrine of prior appropriation - “first in time, first in right.” Under this doctrine, the first user of water from a watercourse acquires a priority right to the water and to the extent of its use under that right.

Nevada water law is set forth in Nevada Revised Statutes (NRS), Chapters 533 and 534. In addition, there are numerous court decisions which have further defined Nevada law. It is the State Engineer who determines the limit and extent of the rights of claimants to water, the use to which water may be put, the quantity of water that is reasonably required for beneficial use, and where water may be used.

As part of the duties of the office, the State Engineer reviews applications for new water rights

appropriations. In approving or rejecting an application to appropriate water, the State Engineer follows statutory criteria:

- Is there unappropriated water in the proposed source?
- Will the proposed use impair existing rights?
- Will the proposed use prove detrimental to the public interest?
- Is the project feasible and not filed for speculative purposes?

All water rights are considered real property and can be bought, sold, traded and leased. The place of use and type of use can be changed with the State Engineer's approval. The attributes of appropriative water rights in Nevada are: 1) beneficial use is the measure and limit of the right to the use of the water; 2) rights are stated in terms of definite quantity, manner of use, and period of use; and 3) a water right can possibly be lost by abandonment or forfeiture.

Decrees. Most surface waters in Nevada are managed in accordance with civil, state or federal decrees. There are over 100 decrees governing water allocation and management in Nevada.

Tribal Water Rights. When the United States reserved land from the public domain for uses such as Native American reservations, it also implicitly reserved sufficient water to satisfy the primary purposes for which the reservation was created. This federal reserved water rights doctrine was established by the U.S. Supreme Court in 1908 in *Winters v. United States*. Federally reserved Native American water rights differ from state-issued rights in a number of ways. For instance, the Winters Doctrine asserts that federal reserved rights cannot be lost by failure to put the associated water to beneficial use. In Nevada, there are more than 20 Native American reservations and colonies.

Interstate Water Resource Management

Colorado River. In addition to Nevada, the states of California, Arizona, Wyoming, Colorado, New Mexico, and Utah, and the Republic of Mexico, all use water from the Colorado River. In 1922, these seven states entered into an interstate compact which includes a provision for the equitable division and apportionment of the waters of the Colorado River system. The U.S. Supreme Court Decree in *Arizona v. California*, 1964, established several additional dimensions to the apportionment of Colorado River water, including apportionments to the lower basin states of Nevada, California and Arizona. It was ruled that of the first 7.5 million acre-feet of mainstem water consumed in the lower basin, California was entitled to a consumptive use of 4.4 million acre-feet/year; Arizona to 2.8 million acre-feet/year; and Nevada to 0.3 million acre-feet/year.

California-Nevada Interstate Compact. The need for apportioning the water of the Truckee, Carson and Walker rivers between Nevada and California has been considered over the years. After years of negotiations, the state legislatures of California (in 1970) and Nevada (in 1971) passed legislation adopting the California-Nevada Interstate Compact. However, the U.S. Congress never ratified the Compact. Interstate allocations of the Truckee and Carson rivers were addressed in the Truckee-Carson-Pyramid Lake Water Rights Settlement Act of 1990.

Truckee-Carson-Pyramid Lake Water Rights Settlement Act of 1990. The latest effort to

resolve long-standing disputes over water and water rights on the Truckee River has been the enactment of congressional settlement legislation for the Truckee and Carson Rivers. This legislation, known as the Truckee-Carson-Pyramid Lake Water Rights Settlement Act (or “Negotiated Settlement”), was approved by the 101st Congress on November 16, 1990. The main authorizations and directives included in the legislation are: an interstate allocation between Nevada and California is made of the waters of the Truckee and Carson Rivers, and Lake Tahoe; a new operating agreement is to be negotiated for the Truckee River; the Newlands Projects is reauthorized to serve additional purposes, including recreation, fish and wildlife, and as a municipal water supply for the Fallon area; a recovery program is to be developed for the endangered Pyramid Lake cui-ui fish and threatened Lahontan cutthroat trout, with a water right acquisitions program authorized; and a water rights purchase program is authorized for the Lahontan Valley wetlands.

Water Quality Protection and Management

Clean Water Act (CWA). The Water Quality Act is a 1987 amendment to the Clean Water Act of 1977, which amended the Federal Water Pollution Control Act of 1972, and is the primary legislative vehicle for federal water pollution control programs. The Water Quality Act is often referred to as the Clean Water Act (CWA). This Act was established to “restore and maintain the chemical, physical, and biological integrity of the nation’s waters” and set goals to eliminate discharges of pollutants into navigable water, protect fish and wildlife, and prohibit the discharge of toxic pollutants in quantities that could adversely affect the environment.

The State Environmental Commission (SEC), established by State law, has adopted regulations which define State programs to carry out the provisions of Nevada’s Water Pollution Control Laws. These laws, contained in Chapter 445A of the Nevada Revised Statutes (NRS), establish the authority to implement portions of the CWA and the Safe Drinking Water Act in addition to several non-federal water pollution control programs. In addition to adopting regulations, the SEC establishes fee schedules for permits, advises, consults and cooperates with other governmental agencies regarding water pollution matters, establishes qualifications for sewage treatment plan operators, and holds hearing regarding the actions of the Nevada Division of Environmental Protection (NDEP). The Nevada Division of Environmental Protection (NDEP) has been delegated the authority to implement aspects of the CWA in Nevada.

Other Programs (NDEP). In addition to the federal CWA and Safe Drinking Water Act programs delegated to NDEP, numerous state programs exist to protect, control and restore the quality of the waters of the State. Apart from the National Pollution Discharge Elimination System (NPDES) permits issued under the CWA, NDEP issues Water Pollution Control Permits with a zero-discharge performance standard for certain mining facilities, and State Ground Water Permits for infiltration basins, land application of treated effluent, large septic systems and industrial facilities. In addition to these permitting processes, NDEP reviews subdivision plans to ensure that wastewater is disposed of adequately. Also, NDEP regulates highly hazardous substances under the chemical accident prevention program. Remediation of polluted soil and/or groundwater falls under the State Corrective Actions Program which includes authorities under two federal acts: the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

Safe Drinking Water Act. In 1974, the U.S. Congress enacted the Safe Drinking Water Act (SDWA) to enhance the safety of public drinking water in the United States through the establishment and enforcement of national drinking water standards. Congress gave the EPA the responsibility for implementation and enforcement of the SDWA. In 1978, the U.S. Environmental Protection Agency (EPA) granted primary enforcement authority (primacy) for the SDWA in Nevada to the State of Nevada (Division of Health). In 1996, additional amendments were enacted and a state revolving loan fund was authorized.

The State Health Division is responsible for implementing the program in 15 of Nevada's 17 counties. The Health Division has interlocal agreements with Clark County Health District and Washoe County District Health Department to implement various activities related to the SDWA and State Board of Health requirements in those counties.

The SDWA applies to all public drinking water systems which provide piped water for human consumption to at least 15 service connections, or regularly serve an average of at least 25 individuals daily for at least 60 days out of the year. There are currently about 700 public water systems in Nevada that are regulated under the SDWA.

Resource Protection

Endangered Species Act. The federal Endangered Species Act provides a program for the conservation of threatened and endangered plants and animals and the habitats in which they are found. The U.S. Fish and Wildlife maintains a list of endangered and threatened species. Species include birds, insects, fish, reptiles, mammals, crustaceans, flowers, grasses, and trees, all of which are dependent upon water. The law prohibits any action, administrative or real, that results in a "taking" of a listed species, or adversely affects habitat.

In Nevada, there are 28 endangered taxa (species/subspecies) (2 are plants) and 14 threatened taxa (7 are plants). Rankings by the Nevada Natural Heritage Program place Nevada in the top ten states having the most globally imperilled species of plants and vertebrates.

State of Nevada Programs and Authority. The State of Nevada Natural Heritage Program researches, collects, and analyzes information on the existence, locations, numbers, condition, biology, and habitats of hundreds of sensitive plant and animal species throughout Nevada. These are species that could qualify for listing as a threatened or endangered in the future under current management and land-use situations. The Program continually prioritizes conservation needs throughout the State, and its easily-accessible computer database, maps, and paper files serve as a cost-effective "early warning system" designed to help prevent costly future species listings.

Nevada Revised Statute 503.589 grants the Division of Wildlife administrator the authority to enter into agreements with other entities for the conservation, protection, restoration and propagation of species of native fish, wildlife and other fauna which are threatened with extinction. Nevada Revised Statute 527.300 grants the state forester firewarden the authority to enter into agreements with other entities for the conservation, protection, restoration and propagation of species of native flora which

are threatened with extinction.

National Environmental Policy Act. The National Environmental Policy Act (NEPA) directs federal agencies to prepare an environmental impact statement (EIS) for all major federal actions which may have a significant effect on the human environment. NEPA states that it is the goal of the federal government to use all practicable means, consistent with other considerations of national policy, to protect and enhance the quality of the environment. NEPA requires all federal agencies to consider the environmental impacts of their proposed actions during the planning and decision-making processes.

Wild and Scenic Rivers Acts (Federal and California). In 1968, Congress passed the National Wild and Scenic Rivers Act to preserve in their free-flowing condition rivers which possess “outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values.” No rivers within Nevada have been designated under this federal act. In 1972, the California Legislature passed the State Wild and Scenic Rivers Act. Portions of the West Walker River and East Fork of the Carson River upstream of Nevada have been designated under the California Act. The California Act prohibits construction of any dam, reservoir, diversion or other water impoundments on a designated river.

The current U.S. Forest Service’s Humboldt and Toiyabe Land and Resource Management Plan has identified other river segments that are suitable for inclusion in the Wild and Scenic Rivers system, including segments in Jarbidge River; Little Humboldt River, North Fork; Marys River; Carson River, East Fork; East Walker River; and West Walker River.

Flood Protection and Drought Planning

Flood Control Act. The Flood Control Act authorizes the U.S. Army Corps of Engineers to perform several flood-related tasks, including the construction of small flood control projects; addressing floods and floodplain issues; snagging and clearing for flood control in channels; and emergency streambank and shoreline erosion protection for public facilities and services.

National Flood Insurance Act. The National Flood Insurance Program (NFIP) was established in 1968 by the National Flood Insurance Act. The intent of this act is to encourage communities to mitigate future flood damage by adopting and enforcing strict floodplain management ordinances in accordance with federal regulations. The Act made federally subsidized flood insurance available in communities which participate in the NFIP. In Nevada, 15 counties and 13 incorporated cities voluntarily participate in the NFIP. The Federal Emergency Management Agency (FEMA) administers the program, providing flood insurance studies and mapping for participating communities. The flood insurance studies are used for development of the Flood Insurance Rate Maps (FIRMs) that are adopted and incorporated by reference into the Flood Hazard Reduction Ordinances administered by each community. In Nevada, the Division of Water Planning has responsibility for oversight and implementation of the NFIP.

Emergency Watershed Protection. The Emergency Watershed Protection program (EWP) is administered by the Natural Resource Conservation Service (NRCS). The program provides technical and financial assistance to restore small watersheds damaged by flooding.

State Floodplain Management. Following the flooding experienced in northern Nevada in 1997, the Division of Water Planning was designated as the lead agency for floodplain management at the State level. The Division's floodplain management duties include implementation of the Community Assistance Program (CAP) and Flood Mitigation Assistance program (FMA), sponsored by FEMA. Under CAP, the Division provides technical assistance and training as needed to help communities achieve and maintain compliance with NFIP requirements. FMA grants are for mitigation projects aimed at reducing repetitive insurance losses and future damage.

The Channel Clearance program is managed by the Nevada Division of Water Resources. The program provides funding for channel clearance maintenance, restoration, surveying and monumenting. During the 1997 State Legislative Session, Senate Bill 218 was passed, establishing a state fund of \$4 million to help communities recover from damages sustained in the event of a disaster. The fund is administered by the Legislative Counsel Bureau.

Local Floodplain Management. Regulations for the development of local flood control districts are described in the Nevada Revised Statutes (NRS) 543. The Clark County Regional Flood Control District was formed under this statute in 1985. The Clark County Regional Flood Control District is a proactive regional entity with the mission of protecting life and property from flood impacts through implementation of flood control infrastructure.

State Drought Plan and the Drought Review and Reporting Committee. During the first year of the 1987-94 drought, Governor Bryan formed the Drought Review and Reporting Committee (DRRC) to monitor drought severity and recommend actions. By 1991, the Division of Water Planning, with assistance from the Governor's DRRC and the Advisory Board for Water Resource Planning and Development, developed the State Drought Plan. The Drought Plan defines drought stages (warning, severe, emergency), and establishes the roles of the DRRC, drought task forces and other agencies during the various drought stages.

Conservation

Service Connection Metering. A majority of the public water system withdrawals (in terms of volume) are metered, however not all deliveries to each service connection are metered. For example, only about 25 percent of residences in Reno/Sparks have water meters. Water meters were initially prohibited in the cities of Reno and Sparks by a 1919 statute (NRS 704.230). Since that time, gradual changes have occurred which: 1) require meters on all businesses (1977) and on all new homes built after 1988; and 2) allow meters on residences upon owner request and under certain conditions tied to the Negotiated Settlement (1990).

Low Flow Plumbing Standards. The Nevada Legislature passed Assembly Bill 359 in 1991 thereby imposing certain minimum standards for plumbing fixtures (toilets, showers, faucets and urinals) in new construction and expansions in residential, industrial, commercial and public buildings. Each

county and city was required to include these requirements in its building code or to adopt these requirements by ordinance, and to prohibit by ordinance the sale and installation of any plumbing fixture which does not meet the minimum standards.

Conservation Plans. In 1991, the Nevada Legislature passed Senate Bill 360 requiring all water purveyors (that supply water for municipal, industrial or domestic purposes) to adopt conservation plans before July 1, 1992. Public water purveyors were to submit their plans to the Division of Water Planning for review and approval before adoption (NRS 540.121 through 540.151). Private utilities were to submit their plans to the Public Service Commission (NRS 704.662 through 704.6624). However, Senate Bill 360 did not require periodic plan updates or progress reports.

U.S. Bureau of Reclamation Conservation Plans. On October 12, 1982, the Reclamation Reform Act (RRA) was signed into law. One of the provisions of the RRA requires each district, that has entered into a repayment contract or water service contract, to develop a water conservation plan. The plan is to contain definite goals, appropriate water conservation measures, and a time schedule for meeting the water conservation objectives. This provision of the RRA impacts districts such as the Truckee Carson Irrigation District and Pershing County Water Conservation District. Through their Field Services Program, Reclamation's intent is to encourage the consideration and incorporation of prudent and responsible water conservation measures in district operations.

Local and State Water Planning and Management

Many local and state entities have statutory authorities related to water use, management, protection and development. Some of the authorities are summarized in Tables 2-1 and 2-2.

Table 2-1. Local Organization Statutory Authority

Category	Agency	Program	Authority (NRS)
Water Supply	Cities	Water Facilities	266.285
	Counties	Water Facilities	244.366
	General Improvement Districts	Water Facilities	318.144
	Irrigation Districts	Irrigation	539.010 - 539.783
	Water Conservancy Districts	Water Supply	541.010 - 541.420
Water Quality	Cities	Sewer Facilities	266.285
	Counties	Sewer Facilities	244.366
	General Improvement Districts	Sewer Facilities	318.140
Environmental Uses	Conservation Districts	Conservation of Natural Resources	548.010 - 548.550
Flood Management	Flood Control Districts	Flood Control	543.170 - 543.830
	Water Conservancy Districts	Flood Control and Drainage	541.010 - 541.420
Water Planning and Management	Cities	Master Plan	278.150 - 278.230
	Counties	Regional Plan	278.0272 - 278.029
		Master Plan	278.150 - 278.230

Table 2-2. State Agency Statutory Authority

Category	Agency	Program	Authority (NRS)
Water Supply and Allocation	State Engineer's Office (Division of Water Resources)	Water Right Adjudication and Appropriation	533
		Groundwater Regulation	534
	Division of Water Planning	Small Community Grant Program	349.980 - 349.987
		Conservation Plans	540.121 - 540.151
	Public Utilities Commission	Regulation of Public Utilities	704.001 - 704.960
		Utility Environmental Protection Act (UEPA)	704.001 - 704.960
Conservation Plans		704.662 - 704.6624	
Water Quality	Division of Environmental Protection	Water Pollution Control Clean Water Act State Groundwater Permit Safe Drinking Water Act Mining Reclamation	445A.300 - 445.730 519A.010 - 519A.280
		Division of Agriculture	Control of Pesticides
	Bureau of Health Protection Services, Health Division	Safe Drinking Water Act	445A.800 - 445A.955
		Control of Septic Systems	444.650
Environmental and Recreational Uses	Division of Wildlife	Boating Safety	488, 501.243
		Wildlife Management and Propagation	504.140 - 504.490
		Protection of Threatened Species	503.584
	Natural Heritage Program	Threatened and Endangered Species Database	527.260 - 527.300
	Division of Parks	Park Facilities	407.011 - 407.250
	Division of Forestry	Protection and Preservation of Timbered Lands, Trees and Flora	527.010 - 527.330
Forest Practice and Reforestation		528.010 - 528.120	
Flood Management	Division of Water Planning	National Flood Insurance Program (Community Assistance, Flood Mitigation Assistance)	540
	Division of Water Resources	Dam Safety	535.005 - 535.110
		Channel Clearance	532.220 - 532.230
	Division of Emergency Management	Hazard Mitigation Grant	414
	Division of Forestry	Forest/Vegetative Cover for Flood Prevention	472.043
Department of Conservation and Natural Resources	Flood Control Loans	543.090 - 543.140	
Water Planning and Management	Division of Water Planning	State Water Plan	540.101
		Planning Assistance	540.011 - 540.151

Regional Plans

According to Nevada Revised Statutes 540.101(2), the Division of Water Planning is to coordinate with local governments (political subdivisions) in developing the *State Water Plan*, and upon the request of the Division, each local government shall cooperate with and assist the Division in the development of the Plan. Following is a summary of selected regional planning efforts that are underway. These planning efforts will provide valuable information for the *State Water Plan*.

Southern Nevada Water Authority Water Resource Plan

The Southern Nevada Water Authority (SNWA) was created in 1991 through a cooperative agreement among the seven regional water and wastewater agencies, including Big Bend Water District (Laughlin); City of Boulder City; Clark County Sanitation District; City of Henderson; City of Las Vegas; Las Vegas Valley Water District; and City of North Las Vegas. The purposes of SNWA are to seek new water resources for Southern Nevada, to manage existing and future water resources, to construct and manage regional water facilities, and to promote responsible conservation. The SNWA Water Resource Plan was completed January 1996, and amended February 1997.

Washoe County Comprehensive Regional Water Management Plan

In 1995, the Nevada State Legislature approved legislation which created the Regional Water Planning Commission and provided the basis and direction for the Commission and the 1995-2015 Washoe County Comprehensive Regional Water Management Plan. This legislation required that the Commission develop "...a comprehensive plan for the region covering the supply of municipal and industrial water, quality of water, sanitary sewerage, treatment of sewerage, drainage of storm waters and control of floods." The Plan was completed and approved by the 1997 State Legislature.

Clark County Regional Flood Control District Flood Control Master Plan

In response to major floods in 1983 and 1984, the Clark County Regional Flood Control District (CCRFCDD) was established in 1985 to develop a regional flood control program for the Las Vegas Valley and surrounding environs. As part of the CCRFCDD mandate, a comprehensive, regional Master Plan was prepared and adopted in 1986. The principal objective of the Master Plan is to provide for the long-term improvement in public safety and property damage protection from flooding events by guiding the siting, design, and installation of flood control facilities. Periodic Master Plan updates are required by law to account for changes in land use, the construction of new facilities, and for improved hydrologic and hydraulic data.

Water Quality Management Plans (Section 208 of the Clean Water Act)

Section 208 of the federal Clean Water Act was promulgated for the purpose of encouraging and facilitating the development and implementation of areawide waste treatment management plans. Section 208 plans have been developed for all areas of Nevada.

City/County Master Plans

Nevada Revised Statutes 278.150 requires each city and county to prepare and adopt a comprehensive, long-term general plan for the physical development of the city, county or region. The master plan may address a variety of matters, such as conservation, land use, population, public services and facilities, recreation, and solid waste disposal.

Water Resources Data Collection and Research

A majority of the available water resources data in Nevada is collected by a variety of state and federal entities, such as U.S. Geological Survey (USGS), Desert Research Institute (DRI), Natural Resources Conservation Service, Nevada Division of Environmental Protection, Nevada Division of Water Resources, Nevada Health Division, and the Nevada State Health Laboratory. The main types of water resources data include: streamflow data and forecasts, lake and reservoir water levels, groundwater levels, water usage, water right information, water quality data, treatment plant discharges, snowpack amounts, precipitation, and temperature. Much of the research related to Nevada's water resources is performed by USGS, DRI and University of Nevada Reno (Department of Environmental and Natural Resource Sciences; Applied Economics and Statistics).

Funding Opportunities

A variety of state and federal funding sources exist for the planning, management, protection and development of our water resources as shown in Table 2-3. These funding programs are described in more detail in Part 1, Section 1 of the *State Water Plan*.

Table 2-3. Selected Funding Programs

Agency	Program
State Agencies	
Division of Water Planning	Grants for Capital Improvements to Community Water Systems
Division of Environmental Protection	Clean Water Act Section 319 Nonpoint Source Implementation Grant Program
	Clean Water Act State Revolving Loan Fund
Division of Water Resources	Channel Clearance Program
Commission on Economic Development	Community Development Block Grant Program
Department of Business and Industry	Water Projects Financing Program
Division of Health, Bureau of Health Protection Services	Safe Drinking Water Act State Revolving Loan Fund
Legislative Counsel Bureau	Disaster Relief Fund
Federal Agencies	
Department of Agriculture, Rural Development	Rural Utilities Service Program
Environmental Protection Agency	Clean Water Act Section 104 (b)(3) Wetland Protection Development Grants
Natural Resources Conservation Service; Fish and Wildlife Service	Wetlands Reserve Program
Natural Resources Conservation Service	Environmental Quality Incentive Programs
Federal Emergency Management Agency	Flood Mitigation Assistance Grants