

2003

Groundwater Law Sourcebook of the Western United States

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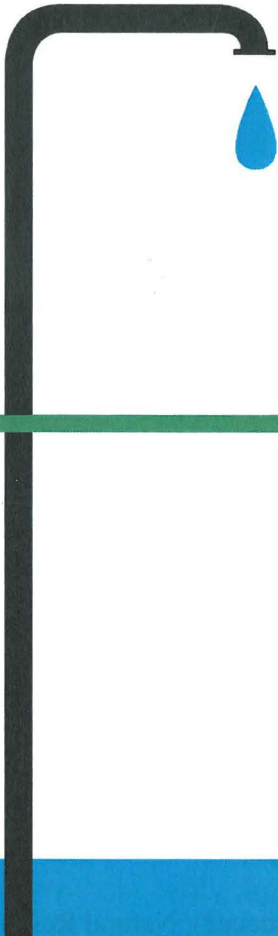
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Gary Bryner and Elizabeth Purcell



The mission of the Natural Resources Law Center is to “*promote sustainability in the rapidly changing American West by informing and influencing natural resource laws, policies and decisions.*”

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**GROUNDWATER LAW
SOURCEBOOK
OF THE WESTERN UNITED STATES**

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FORWARD

As the population of the American West continues to grow, one of the greatest challenges facing many communities is securing an adequate water supply. Cyclical droughts, the threat of reduced snowpack and other disruptions from climate variability, and other factors have added to the pressures to find new sources of water. Groundwater has become an increasingly important source for municipal and industrial water as well as water for irrigation, particularly in the West, where, in some areas, groundwater is the only dependable source of water. While groundwater resources will become increasingly important in the twenty-first century in meeting human and ecosystem needs, aquifers in the West are showing sobering signs of depletion and pollution. The legal and institutional systems for managing and protecting groundwater resources are complex; often separate from parallel systems for governing surface waters, even though ground and surface waters are often interconnected. The purpose of this report is to explain how groundwater law works in each of the western states, and to serve as a resource for discussions and analyses by policy makers and the general public about how to improve the governance of ground and surface waters in the West.

The Sourcebook begins with a brief overview of the problems and challenges surrounding the tremendous increase in reliance on groundwater in the West. The central core of the Sourcebook is a detailed explanation of groundwater law in the western states. Following the discussion of state laws, the Sourcebook concludes with a discussion of issues raised by the review of state laws. An appendix provides links to the major groundwater laws in western states. The states covered in this sourcebook include: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming. It should also be noted that the focus here is on groundwater supply and does not examine issues of groundwater quality, the subject of a forthcoming study.

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INTRODUCTION AND OVERVIEW

Groundwater is found in water-bearing layers of saturated underground rock and sand, called aquifers, formed as surface water percolates through layers of earth and fills porous rock and sand. Groundwater moves very slowly, depending on the nature of the material in which it has accumulated. Aquifers are recharged naturally through precipitation that filters through a recharge area, but the process is typically very slow, taking from decades to centuries. If the withdrawal or pumping rate matches the recharge rate, the aquifer is a renewable resource; if the withdrawal rate exceeds recharge, typically described as overdrafting or mining, the aquifer becomes a nonrenewable resource.¹

Some aquifers are confined where water is trapped between two impermeable layers of rock. When wells are drilled into confined aquifers, their pressure is usually sufficient to withdraw the water without a pump. The point at which confined aquifers are charged may be hundreds of miles from where the water is withdrawn. Unconfined aquifers form when water collects above an impermeable layer of rock or clay; the top of the saturated region of the aquifer is called the water table. Water is pumped out through wells and the water table rises and falls as the amount of precipitation and the withdrawal rate changes.²

Humans have been withdrawing groundwater for millennia, but it is only recently that technologies have been developed to pump sufficiently large quantities of water from aquifers to threaten their sustainability. Windmills, centrifugal pumps, and other devices were used to withdraw relatively small amounts of groundwater, but developments in pumping technology, the availability of cheap electricity, and sprinkler irrigation systems led to a dramatic increase in pumping in the 1930's and 40's, particularly in the Southern Plains.³ Perhaps the most well-known aquifer, the Ogallala, underlies the Great Plains and supplies water to residents of eight states, and has been the subject of great concern because of decades of overdrafting. In some regions the withdrawal rate has been 14 times greater than that of the natural recharge rate, and has caused farmers in some areas to shift to dry land agriculture; in other areas, however, farmers continue to tap the aquifer for irrigation.⁴

More than 28 trillion gallons of water are pumped from underground sources each year in the United States.⁵ Approximately 90 percent of fresh water in the United States is found in groundwater. According to one estimate, groundwater is the source of 33 percent of the fresh water used by 19 western states. Some 78 percent of the groundwater is used for irrigation, 14 percent for public supply systems, and 4 percent for rural domestic and livestock uses.⁶ Another estimate found that groundwater accounts for from 40 to 45 percent of all water withdrawals in the West and as much as one-half of withdrawals in the Rio Grande, Great, and Lower Colorado basins.⁷ The U.S. Geological Survey reports the following percentages of state populations that use groundwater for drinking water:⁸

Arizona	60%
California	45
Colorado	22
Idaho	96
Montana	52
Nevada	31
New Mexico	90
Oregon	40
Utah	56
Washington	61
Wyoming	57

Groundwater Problems and Challenges

There are several advantages to using groundwater. Rapidly growing cities are at a disadvantage under the legal system of prior appropriation that governs withdrawals from surface water. Prior appropriation gives senior rights to those who withdraw the water first, such as farmers; and cities may have junior rights that are only honored if all senior rights have been satisfied. While it is difficult to obtain new water rights for surface water, groundwater is usually not allocated according to the same rules. In some areas of the West, groundwater withdrawals are governed by the common law rule of capture, allowing anyone who can drill a well to get access to the water to use it. Prior appropriation rules that govern the withdrawal of groundwater operate as they do for surface water, allowing those who first make withdrawals to enjoy senior water rights.⁹

A second advantage of groundwater is that while water quality varies widely, much of it is of high quality and can be used without treatment, unlike some surface water that has high salinity resulting from agricultural runoff. Not only is groundwater pumped for municipal, industrial, and agricultural use, but it is increasingly being bottled as spring water and millions of gallons of water are pumped each day to meet the five billion gallon a year demand for bottled water in the United States. But bottled water is only a tiny fraction of groundwater use in the United States, where some 28 trillion gallons are withdrawn each year, two-thirds of which is used for irrigating crops. This represents more than 25 percent of the nation's water supply.¹⁰

Thirdly, groundwater is available throughout the year. This is in contrast to the rivers and streams in the desert west where water flow varies and may slow to a trickle in the summer and may be delivered at a lower cost than some surface water. Surface waters stored and transported in dams, canals, and ditches require expensive infrastructure, and evaporation and infiltration sap much of the available water. While pumps are required to extricate groundwater, the costs are generally much lower than the extensive storage and transmission systems that have been constructed in the West.¹¹

However, the tremendous increase in groundwater pumping has resulted in serious environmental problems. Groundwater mining has caused land subsidence that has resulted in damage in areas of Arizona, California, Idaho, Nevada, Texas, and

Washington. In many areas where groundwater and surface waters are inextricably linked, pumping groundwater has dried up rivers and lakes and destroyed habitat for fish and riparian wildlife. Robert Glennon has described a number of cases in the West where our thirst for groundwater has damaged ecosystems:¹²

- The Santa Cruz River, west of Tucson, Arizona, once had perennial water flows and formed a lush riparian corridor and a fertile wildlife and bird habitat. Groundwater pumping met the needs of Tucson residents, mining operations, and farming which dramatically lowered the water table, drained the river and destroyed the habitat.
- The Upper San Pedro River in Southern Arizona was “an extraordinarily rich and diverse riparian habitat,” supporting some 300 species of birds, 83 mammalian species, and 47 amphibian and reptile species; Congress established the San Pedro Natural Conservation Area in 1988 and created a federal water right to protect the aquatic and wildlife resources. However, groundwater pumping to fuel the rapidly growing population has resulted in the river being labeled by the conservation group *American Rivers* one of the ten most endangered rivers in the United States, and today has only a narrow ribbon of trees along its banks.
- California’s Central Valley, described as an American Serengeti characterized by extensive grasslands during the summer, marshlands in the winter and spring, and home to grizzly bears, antelope, tule elk and wintering nests for ducks, geese, and cranes from Canada. By the end of the 1930’s, irrigation had spread to millions of acres of farmlands, the Central Valley became a desert and the spawning waters for millions of Chinook salmon were lost.

Groundwater is also expensive to pump, generating electricity bills of thousands of dollars per month per well in some areas. As the water table is drawn down, drilling costs escalate and water quality often declines. In California and other coastal areas, groundwater withdrawals have allowed salt water to contaminate aquifers. Groundwater is a classic example of a commons, where the incentives of each user to overuse the commonly shared resource results in an unsustainable level of consumption and eventual decline or loss of the resource. Unlimited access to a limited resource can eventually cause its destruction.

The problems surrounding groundwater use are not unique to the United States. Worldwide, some one billion people lack access to clean water, 2.5 billion do not have access to modern sanitation services, and 10,000-20,000 children die each day from water-related problems that are preventable. Population growth in developing countries puts tremendous pressure on existing water sources.¹³ Groundwater reservoirs are being pumped at unsustainable rates in China, Saudi Arabia, Mexico, and much of Africa. Southern European nations are also suffering from falling water tables and declining aquifers.¹⁴ In many places groundwater has come to be viewed as a nonrenewable, exhaustible resource.¹⁵

Not everyone argues that overdrafting is necessarily a problem or that current laws are inadequate. A U.S. Geological Survey report, for example, argued that groundwater mining “is no more unsafe than the mining of any other mineral resource, provided it’s recognized and planned.”¹⁶ In some areas, where recharging of aquifers does not occur except over long periods of time, overdrafting may be the only way to meet pressing needs for water. Some defend existing state laws as well suited to manage the interconnection of surface and groundwater.¹⁷ Economists argue that transferability and marketability of water ensure that water is efficiently used and adequate supplies are available to users willing to pay for the resource.

From the perspective of ecological sustainability, groundwater laws and policies need to ensure that withdrawal and recharge rates are balanced, that pumping of groundwater meets both municipal and agricultural needs, and that human and ecosystem demands are satisfied. Critics argue that state and local governments have, for the most part, failed to put in place an effective regulatory scheme to protect groundwater resources and to integrate protection of ground and surface waters. Some western states use different rules to govern ground and surface waters, but even in states that have coordinated management of the two types of water sources, there are problems. One set of coordinated practices, conjunctive use, for example, allows senior water rights owners of surface waters to obtain water to which they are entitled by pumping groundwater in ways that reduce conflict between senior and junior water rights holders. But this coordinated use results in increasing the withdrawal of water from the hydrological system at unsustainable levels, and reduces water needed to sustain riparian habitat and in-stream wildlife.¹⁸

The fragmented nature of groundwater laws and agencies in western states has prompted the call for modernizing and reforming the patchwork of arcane, complex state laws. Their complexity is itself an impediment to a serious debate about how groundwater laws could and should be changed. The following section examines groundwater laws in western states as a first step in encouraging debate over how groundwater law might better contribute to the sustainability of communities throughout the West.

Groundwater Laws in Western States

For many years, state water laws failed in many areas to protect against the decline of aquifers because of a lack of understanding of how groundwater is formed and replenished and how it interacts with surface water. An 1850 Connecticut Supreme Court opinion explained the intersection of ground and surface water this way:

*The laws of its existence and progress, although there, are not uniform and cannot be known or regulated. It rises to great heights and moves collaterally, by influences beyond our apprehension. These influences are so secret, changeable, and uncontrollable, we cannot subject them to the regulations of law, not build upon them a system of rules, as has been done with streams upon the surface.*¹⁹

Most western states have developed ways of responding to the interconnectedness of surface and ground- waters. Groundwater law and policy are moving targets, evolving in response to changes in demand, land use, growth, environmental protection goals, and other factors. Laws and policies are also complicated. Some states have enacted comprehensive groundwater statutes while others have relied on adaptations and interpretations of long-standing laws. Nonetheless, all states have relied on four different legal doctrines to govern groundwater:²⁰

- The common law, or absolute ownership, doctrine provides for unlimited withdrawal of water below the owner's land, regardless of the impact on other landowners. The doctrine still guides water law in many eastern states, where water is abundant. It has served as the basis for developing groundwater resources in most western states until competition for the limited resource compelled changes.
- The American rule, or reasonable use, doctrine limits withdrawals to what is necessary for reasonable and beneficial purposes. Water cannot be wasted or transported off the land if that interferes with the rights of adjacent landowners to also enjoy the beneficial use of the groundwater.
- The correlative rights doctrine was devised as an alternative to absolute rights. It provides that landowners situated above a common groundwater source have equal or correlative rights to a reasonable amount of water for reasonable beneficial uses on their land.
- The prior appropriation doctrine, as is true for surface water, holds that the first party to put the water to beneficial use has a right to continue to do so, and those who appropriate water afterward have junior rights.

Beneficial use is a key principle underlying water law that seeks to encourage economic efficiency in the use of water, but there is no universal understanding of what uses should be considered "beneficial". Water for domestic purposes, irrigation, manufacturing, and stock watering are widely recognized as constituting beneficial use, but jurisdictions disagree over whether water reserved for instream flow to protect fish, riparian habitat, or recreational opportunities also qualifies as a beneficial use.²¹

Most states have adopted some form of the prior appropriation doctrine as a way to encourage landowners to make long term investments in pumping and water development. While that has provided stability in water development, it favors those who established water rights first, and has placed some limits on subsequent changes in land use and economic activity. Many states have developed flexible ways of interpreting prior appropriation to allow for changing circumstances, rather than rewriting water laws, but some states have responded to these by enacting groundwater statutes.

At one level, states appear to be quite similar in providing for coordinated management of surface water and groundwater, but groundwater laws are quite detailed

and complex and differ considerably across the West. Most states provide for coordinated management of groundwater and surface water, especially where the two sources of water are clearly interconnected. Arizona law provides for a comprehensive, innovative system of conjunctive management of groundwater. Colorado has a complicated system of groundwater management that provides different standards for different kinds of basins. Idaho's groundwater law also provides for conjunctive management. Montana law focuses on regular assessment of groundwater conditions and the development of plants to ensure their sustainability. New Mexico has a complicated scheme that designates 33 groundwater basins and requires integrated management of surface and groundwater. Oregon, Utah, Washington, and Wyoming also provide for conjunctive use and integrated management of connected water. Conjunctive use allows states to change a ground water right when withdrawals harm surface water rights owners

In Nevada, state law governs ground and surface water separately, although in practice there is some coordination. California's system separates management of ground and surface water, but integrated planning occurs at the local level. Some states have chosen to make water rights appurtenant to the land on which it is used in order to reduce the possibility of a change in the place of use and to reduce changing existing patterns of water runoff in order to protect appropriators. Some states limit the amount of pumping by placing a cap of the percent of the total reservoir that can be drawn down while others simply require beneficial use. This protects appropriators who rely on other uses. States also differ in how they define different kinds of ground water—definite underground channels, percolating water, underground water that is clearly connected to surface water versus water that is not connected, and other differences.

While there are considerable differences in the details of state ground water law, the western states share common challenges of ensuring an adequate supply of water to meet growing population needs and balancing withdrawals for human use with protecting instream flows and other ecological needs. As groundwater is depleted faster than it is recharged, state governments will need to choose whether to give priority to ensuring the sustainability of ground water and conserving resources for future generations or to give priority to meeting the growing demands of current users, and whether to secure sufficient water for healthy ecosystems or emphasize withdrawal to meet direct human demand. The descriptions of state laws that follow illustrate the kinds of legal tools states can use in pursuing their purposes and priorities.

It is difficult to compare state laws since what is described as prior appropriation in one state may be, in practice, much different than that which is practiced in another. As a result, we have provided rather detailed descriptions of state laws in order to examine differences and similarities.²² The description of state groundwater law that follows begins with a brief overview and summary, followed by a more detailed discussion of (1) constitutional provisions, (2) general statutory provisions governing groundwater, and (3) other provisions.

ARIZONA

Arizona has been a leader in the development of groundwater policy. Its first groundwater management law was passed in 1945. Arizona does not manage ground and surface waters conjunctively. Surface waters are governed by prior appropriation; percolating groundwater, in contrast, can be pumped by the overlying landowner under the doctrine of reasonable use. The party asserting that underground water is part of a stream flow has the burden of proving that by clear and convincing evidence. One important innovation is an agreement for Nevada to store some of its Colorado River water in Arizona aquifers to help Nevadans deal with water shortages. Arizona laws are complex, detailed, and include a wide range of exceptions to general rules.²³

1. Constitutional Provisions

Arizona's Constitution includes an article on water rights. The first section states that riparian water rights shall not have any force;²⁴ the second section recognizes all existing rights to beneficial uses of water.²⁵

2. General Provisions

The Arizona Department of Water Resources (ADWR) manages the state's water and administers all laws relating to groundwater. The department, through the director, succeeds to the authority, powers, duties and responsibilities of the Arizona water commission and the state water engineer relating to surface water, groundwater and dams and reservoirs.²⁶ The director may develop programs for the management and use of groundwater.²⁷

Groundwater is defined as water under the surface of the earth regardless of the geologic structure in which it is standing or moving. Groundwater does not include water flowing in underground streams with ascertainable beds and banks.²⁸

The 1980 Arizona Groundwater Management Code seeks to conserve, protect and allocate groundwater resources and provide a framework for the comprehensive management and regulation of the withdrawal, transportation, use, conservation, and conveyance of rights to use the groundwater of the state.²⁹ The Code has three specific goals: control overdrafting, provide a means to allocate the state's limited groundwater to most efficiently meet the changing needs of the state, and augment Arizona's groundwater through water supply development.³⁰

Waters belong to the public and are subject to appropriation and beneficial use.³¹ Beneficial use is the basis, measure, and limit of the use of water.³² Five years of non-use is required for forfeiture of water rights,³³ and underground storage does not constitute abandonment or forfeiture,³⁴ nor does a water exchange of surface water for groundwater,

effluent, Colorado River water or groundwater for surface water constitute abandonment or forfeiture.³⁵

Arizona's groundwater code establishes three levels of water management to respond to different conditions. At the base level, general provisions apply statewide. The next level of management occurs in Irrigation Non-Expansion Areas (INAs). The strictest level of management is applied to Active Management Areas (AMAs) where overdraft is most severe. Outside AMAs and INAs, groundwater rights are only limited by reasonable and beneficial use.³⁶

Active Management Areas (AMAs)

The code establishes four initial AMAs: Tucson, Phoenix, Prescott, and Pinal.³⁷ In 1995, the Santa Cruz AMA was established.³⁸ The director may designate subsequent AMAs if necessary to preserve groundwater, if land subsidence is endangering property or potential groundwater storage, or if water quality is threatened.³⁹ An AMA may include more than one groundwater basin, but cannot be smaller than a groundwater basin or include only a section of a basin.⁴⁰ To designate an AMA, the director must hold a public hearing, make written findings, and issue an order.⁴¹ An AMA can also be designated upon petition of ten percent of registered voters residing within the boundaries of the proposed AMA, followed by a general election.⁴² After an AMA is designated, the director appoints an area director who will assist in the development and implementation of the management plan.⁴³ There is also a groundwater users advisory council in each AMA that advises the area director and makes recommendation on groundwater management programs and policies.⁴⁴

Irrigation Non-Expansion Areas (INAs)

The code creates two initial irrigation non-expansion areas (INAs), Douglas groundwater area and Joseph City groundwater area.⁴⁵ The director may designate an INA if there is insufficient groundwater to provide a reasonable safe supply for irrigation and current rates of withdrawals and an AMA designation is not necessary.⁴⁶ An INA designation may be initiated by the director or by petition to the director if either: not less than twenty-five irrigation users of groundwater or one-fourth of the irrigation users sign the petition or ten percent of voters in the boundaries of the basin sign the petition.⁴⁷ The director will then have a hearing to consider whether to designate the area and the boundaries of the area.⁴⁸ At the hearing, the director will present factual data in support or in opposition to the proposed action.⁴⁹ After the hearing, the director will make written finds and an order if she decides to declare the area an INA.⁵⁰

Within INAs, only land legally irrigated between 1975-80 may be irrigated with groundwater, effluent, diffused water or surface water.⁵¹ In subsequent INAs, the use in the preceding five years before designation is the benchmark.⁵² In INAs, groundwater users from nonexempt wells must use a water measuring device and file a report

estimating the quantity of water withdrawn.⁵³ Users may substitute irrigation acreage if it was done by 1995.⁵⁴ The lands retired and the substitute acres must be outside the service area of a city, located in the same irrigation district and same sub-basin, and Central Arizona project water must be adequate to supply substitute acres.⁵⁵ A person may substitute acres in the same basin if the legally irrigated acres were damaged by floods, if it is not economically feasible to restore the original acres, or if there is an impediment to efficient irrigation on the original acres, but the substitutes must be within the same farm unit.⁵⁶ The director may convert an INA to AMA if he determines the INA meets any of the criteria for designating an AMA.⁵⁷

Groundwater Rights and Uses in General

In an AMA, a person may only withdraw and use groundwater or store water in a storage facility under the Groundwater Code.⁵⁸ In initial AMAs, no new acreage may be irrigated.⁵⁹ As is true in INAs, only acres which were legally irrigated between 1975 and 1980 may be irrigated with groundwater, but additionally, in AMAs, the acres must not have been retired from irrigation for a non-irrigation use and the grandfathered right must not have been conveyed for a non-irrigation use.⁶⁰ A person who owns acres which may be irrigated may substitute acres by retiring the old acres and using central Arizona project water to irrigate the same number of new substitute acres.⁶¹ The substitute acres must have been legally irrigated between 1958 and 1968, and must be outside the service area of a city and be within the same irrigation district and same sub-basin.⁶² The substitution must also be necessary to enable the irrigation district to more efficiently deliver central Arizona project water and benefit the management of the AMA.⁶³ In subsequent AMAs, the base line is the five years prior to the notice of the initiation of the designation process.

In an AMA, a person who was legally withdrawing and using groundwater as of the date of the designation of the AMA or who owns land legally entitled to be irrigated with groundwater has the right to withdraw or receive and use groundwater as determined by the director.⁶⁴ The rules governing grandfathered rights are detailed and complex. For example, in an initial AMA, a person who owns land which was legally entitled to be irrigated with groundwater and who retired such land from irrigation after January 1, 1965 but prior to the date of the designation of the AMA in anticipation of a non-irrigation use, has the right to withdraw from or receive for such land three acre-feet of groundwater per acre per year upon a showing that the land has been held under the same ownership since retired and a development plan for the proposed non-irrigation use existed at the time the land was retired.⁶⁵ There are three categories of grandfathered rights (1) Non-irrigation grandfathered rights associated with retired irrigated land, (2) Non-irrigation grandfathered rights not associated with retired irrigated land, and (3) Irrigation grandfathered rights. Each category subjects the owner to different restrictions and benefits.

Without a grandfathered right, a person may not withdraw groundwater from a non-exempt well in an AMA unless the person obtains a groundwater withdrawal permit

from the director. Arizona allows seven categories of groundwater withdrawal permits. They are the following:

1. Dewatering permit;
2. Mineral extraction and metallurgical processing permit;
3. General industrial use permit;
4. Poor quality groundwater permit;
5. Temporary permit for electrical energy generation conditions and temporary dewatering permit;
6. Drainage water permit; and
7. Hydrologic testing permit.

Each permit has separate requirements, priorities and durations. After receipt of an application, the director may conduct independent investigations to determine if the application should be accepted or rejected.⁶⁶ The director is to publish notice of the application once each week for two consecutive weeks in a newspaper of general circulation in the counties in which the applicable AMA is located.⁶⁷ Objections may be submitted in writing and must include the name and address of the objector and state the reasons the application should not be accepted.⁶⁸ An administrative hearing may be held if the director deems it necessary.⁶⁹ A person whose application is denied or a person who contested a permit may seek judicial review of the decision in superior court.⁷⁰

Transportation of groundwater

Groundwater transportation rules in Arizona are extremely complex and contain multiple specific restrictions. The basic rule is that groundwater withdrawn may be transported without payment of damages within a sub-basin of an AMA pursuant to a grandfathered right or a groundwater withdrawal permit.⁷¹ Groundwater may be transported between sub-basins or away from an AMA, subject to damages, if the groundwater was withdrawn by a city within its service area or by an irrigation district within its service area and transported within its service area or pursuant to a groundwater withdrawal permit or from an exempt well.⁷²

There are different rules for withdrawals of groundwater for transportation to AMAs. Groundwater that is withdrawn in a groundwater basin or sub-basin outside an initial AMA may not be transported directly or indirectly to an initial AMA unless specifically authorized, and any transportation authorized is subject to payment of damages. Basins have their own specific rules regarding groundwater withdrawn in its area and then transported to an AMA.⁷³

Management of AMAs

Statutes establish management goals for each AMA.⁷⁴ The director must develop a management plan for each initial AMA for each of the five periods described below.⁷⁵ The plans shall include a continuing mandatory conservation program for all persons

withdrawing, distributing or receiving groundwater designed to achieve reductions in withdrawals of groundwater.⁷⁶ A person with an irrigation grandfathered right or any farm owner is exempt from farm water duties if there are ten or fewer irrigation acres and the farm is not part of an integrated farming operation.⁷⁷

Arizona created five management periods for which the department must compose management plans with increasing water restrictions. The first period was from 1980 to 1990. Each subsequent period lasts ten years. In each subsequent period, both the water duty and conservation requirements are tightened. In the first management period, the management plan established an irrigation water duty and a conservation program for all non-irrigation uses.⁷⁸ In each subsequent period, the director must implement additional restrictions such as a non-per capita conservation program for municipal providers, public education programs relating to water conservation, creating a program for the purchase and retirement of grandfathered rights. The Arizona department of water resources develops the conservation requirement with assistance from users in the AMAs. Each plan is published after development.⁷⁹

Arizona requires certificate of assured water supply for a person who wants to offer subdivided lands in an AMA.⁸⁰ Assured water supply means sufficient groundwater, surface water or effluent of adequate quality will be available to satisfy the water needs of the proposed use for at least 100 years.⁸¹ Sufficient groundwater means that the proposed withdrawals the applicant will make over a period of 100 years will be of adequate quality and will not exceed in combination with other withdrawals a depth to water of one thousand feet or the depth of the bottom of the aquifer, whichever is less.⁸²

3. Other Provisions

Out of State Transfers

Although Arizona has a specific out of state transfer statute used for surface water, ground water uses the transportation rules stated above to control all transfers, even out of state transfers. In Arizona, ground water transfers focus on basin to basin transfer, not on state lines.

Underground Storage

In 1986 the Arizona Legislature established the Underground Water Storage and Recovery program to allow persons with surplus supplies of water to store that water underground and recover it at a later time for use by the storer. In 1994, the Legislature enacted the Underground Water Storage, Savings, and Replenishment Act (UWS), which further defined the recharge program. The recharge program is administered by ADWR. A person who wishes to store, save, or recover water through the recharge program must apply for permits. Up to three permits may be required. The first is a facility permit; and there are four types of facility permits. An underground storage facility permit (USF) allows the permit holder to operate a facility that stores water in the aquifer. The director

CALIFORNIA

California has had a chronic concern with finding enough water to meet demand. State law does not coordinate surface water and groundwater use. Surface waters and “subterranean streams flowing through known and definite channels” are regulated through a comprehensive statutory structure. Groundwater that is not flowing in known and definite channels is regulated separately from surface water through common law principles. Landowners overlying a groundwater basin have an absolute right to withdraw water beneath their land; each landowner has equal and correlative rights, but these rights are superior to appropriative rights. Groundwater users who do not own overlying lands are appropriators; when basins are overdrawn, appropriation rights cannot be acquired, except by prescription; when basins are not in overdraft, rights can be acquired by developing wells and conveyance systems. Counties are increasingly adopting groundwater ordinances that seek to protect basins from overdraft and prohibit pumping when overdraft occurs, but the approaches taken by counties to do so vary widely. Counties manage groundwater through conjunctive use and banking projects.⁸⁷

1. Constitutional Provisions

Under the California Constitution, the use of water is limited to its beneficial use without waste.⁸⁸ *“The right to water or to the use or flow of water in or from any natural stream or water source in this State is and shall be limited to such water as shall be reasonably required for the beneficial use to be served, and such right does not and shall not extend to the waste or unreasonable use or unreasonable method of use or unreasonable method of diversion of water.”*⁸⁹ The state controls the use of water. Riparian use is limited to reasonable use. This constitutional provision has only been applied to surface but could be interpreted to include groundwater.⁹⁰

2. General Provisions

Groundwater Rights

California is unique in western water because of its use of both riparian rights and prior appropriation rights. Riparian rights in a stream or water course attach to the land, but the flow may only be diverted under reasonable methods of diversion and used for reasonable and beneficial uses.⁹¹ There are three basic rights in groundwater: an overlying right, an appropriative right, and a prescriptive right. An overlying right is analogous to that of a riparian; where as it is the right of owner of the land to take water from the ground underneath for use on his land within the watershed, this right is appurtenant to the land. An appropriative right is any taking of water for other than riparian or overlying use. Prescriptive rights refer to rights against either overlying or appropriative right holders that ripen under adverse possession. Each right has a different priority ranking.

Rights of the overlying landowner are paramount and the right of an appropriator is limited to the surplus. The appropriator must yield to the overlying owner in the event of shortage, unless the appropriator has gained prescriptive rights through taking non-surplus waters. Between overlying owners, the rights are correlative so each may only use his reasonable share when water is insufficient to meet the needs of all. Between appropriators, "first in time, first in right" applies. An appropriative taking of water which is not surplus is wrongful but it may ripen into a prescriptive right where the use is open and notorious, hostile and adverse to the original owner with continuous and uninterrupted use for 5 years.

No agency has comprehensive authority to define the character or extent of groundwater or regulate groundwater state wide. Courts have jurisdiction to determine some groundwater rights and to limit pumping through adjudication (only 12 basins have been adjudicated). Courts have resolved discrete conflicts or developed comprehensive allocation plans for particular basins. Courts only have authority to determine the existence, extent and character of a groundwater user's rights but not prospective rights of overlying owners. If there is insufficient water to satisfy overlying owners, courts can limit pumping to a safe yield and require proportional sharing to reduced extractions based on the historic pumping rate as an average of the past five years. (This may create a race to the pumphouse mentality where there is no benefit to conservation because it will only increase the supply available for prescription.)

Groundwater Agencies

The State Water Resources Control Board (SWRCB) regulates groundwater under authority of the state constitution for reasonable and beneficial use and to prevent waste. The state determines what surface and underground water can be converted to public use or controlled for public protection.⁹² State law encourages water management at a local or regional level,⁹³ and local agencies manage groundwater. Special act districts create agencies to regulate groundwater in specific basins. Powers depend on each enabling act and may include the following:

1. Storing and capturing water in groundwater basins;
2. Requiring conservation;
3. Controlling groundwater extractions by regulating, limiting or suspending extractions from extraction facilities, the construction of new facilities, the enlargement of existing facilities and reactivation of abandoned extraction facilities;
4. Regulating replenishment programs;
5. Determining groundwater space available in the groundwater basin and allocate available storage space;
6. Commencing and prosecuting actions to enjoin unreasonable uses and methods of groundwater use;
7. Defining and quantifying rights to groundwater within the district in times of shortage;

8. Requiring well registration and extraction statement, determine well spacing and prohibiting well interference;
9. Controlling places of use;
10. Prioritizing uses;
11. Restricting and regulating exportation by requiring a permit.⁹⁴

Districts may also be created by a General Act which includes Irrigation Districts, County Water Districts, Water Districts, Water Storage Districts Reclamation Districts County Waterwork Districts, Drainage Districts, Water Replenishment Districts, Levee Districts, Municipal Water Districts, and Water Conservation Districts.⁹⁵ These districts only have limited statutory powers to conduct certain groundwater management activities, and have no authority to directly regulate or limit extractions or define rights. They can only have indirect regulation through assessing fees, managing replenishment programs, and participating in litigation that affects the quality. Water Replenishment Districts are formed to replenish groundwater supplies within district boundaries. Their purpose is to replenish groundwater by buying, selling and exchanging water, protecting quality, and put to beneficial use water under their control.⁹⁶

Four counties have passed their own ordinances to regulate groundwater extraction under state law providing for Groundwater Management Plans.⁹⁷ This provision applies to all groundwater basins in the state except for basins already adjudicated. Its purpose was to clarify the authority of local water agencies to manage and regulate groundwater and adoption by counties is optional. Plans are to include components relating to the monitoring and management of groundwater levels within the groundwater basin, groundwater quality degradation, inelastic land surface subsidence, and changes in surface flow and surface water quality that directly affect groundwater levels or quality or are caused by groundwater pumping in the basin.⁹⁸ The local agency must also have a plan that enables the local agency to work cooperatively with other public entities whose service area or boundary overlies the basin.⁹⁹ Finally, a map that details area of the groundwater basin must be prepared by the local agency.¹⁰⁰ The groundwater management plans may include the following:

1. The control of saline water intrusion;
2. Identification & management of wellhead protection areas & recharge areas;
3. Regulation of the migration of contaminated groundwater;
4. Administration of a well abandonment and well destruction program;
5. Mitigation of conditions of overdraft;
6. Replenishment of groundwater extracted by water producers;
7. Monitoring of groundwater levels and storage;
8. Facilitating conjunctive use operations;
9. Identification of well construction policies;
10. Construction and operation by the local agency of groundwater contamination cleanup, recharge, storage, conservation, water recycling, and extraction projects;
11. Development of relationships with state and federal regulatory agencies;

12. Review of land use plans and coordination with land use planning agencies to assess activities which create a reasonable risk of groundwater contamination.¹⁰¹

A local agency adopts rules and regulations to implement and enforce these plans, but the agency may not limit or suspend extractions unless it has determined through study and investigation that groundwater replenishment programs, or other alternative sources of water supply, have proved insufficient or infeasible to lessen the demand for groundwater.¹⁰² County groundwater management is seen as part of the municipal police power to enact laws protecting public health, safety and welfare. State law does not preempt county regulation because no comprehensive state-wide regulatory scheme exists.

Other Groundwater Provisions

Waste is defined as permitting water to flow from an artesian well either into a natural watercourse unless used thereafter for irrigation or domestic use; or into the street; or upon the public lands of the U.S. or State unless for irrigation, domestic use or propagation of fish.¹⁰³ If artesian well water is used for irrigation, and if over five percent escapes from the land, the use is waste.¹⁰⁴ Storage is not waste if thereafter used for beneficial use.¹⁰⁵ If an artesian well is not capped or equipped with a mechanical device to prevent flow of any water from the well, it is a public nuisance.¹⁰⁶

Groundwater users who find an alternate non-tributary source in order to prevent further depletion of the water in the basin are protected by law.¹⁰⁷ The alternate source counts as reasonable use for the purpose of establishing and maintaining the right to extract. Groundwater rights are protected if the user fails to use any part of the water as a result of conjunctive use of surface water and groundwater involving the substitution of an alternate supply for the unused portion of the surface water or reduction in the use of the appropriated water. The non-use is to be considered as equivalent to a reasonable and beneficial use of water.¹⁰⁸

Subterranean streams flowing through known and definite channels are subject to appropriation like surface water.¹⁰⁹ In contrast, underground water supply is expressly excluded from appropriation.¹¹⁰ Specific basins (the Sacramento and Delta-Central Sierra) are banned from exporting groundwater unless in compliance with a groundwater management plan.¹¹¹ Underground storage of water is a beneficial use if applied for a beneficial purpose after storage.¹¹²

In Riverside, San Bernardino, Los Angeles and Ventura counties, groundwater pumpers who take more than 25 acre feet in any year must file with the Board a "Notice of Extraction and Division of Water."¹¹³ Failure to file shall be deemed equivalent to non-use in such year.¹¹⁴ These counties are distinguished due to the combination of light rainfall, concentrated population, the transition of considerable areas of land from agricultural use to urban use, and a similar dependence on groundwater supplies which

prevails in these counties. Also, most of their underground water supplies are overdrawn.¹¹⁵

State law prohibits the use of groundwater for certain purposes like golf courses if reclaimed water is available and reasonably priced.¹¹⁶

Every year, the Southern California Water Replenishment District must prepare a survey and report regarding groundwater supplies of the district including determination of the overdraft, production of groundwater, changes in water pressure, estimate of current and ensuing year overdraft, and estimate of production.¹¹⁷ The Board compiles all the information from the districts and finds the annual overdraft for the preceding year, estimates for current and ensuing year, accumulating overdraft and production.¹¹⁸ The board then determines cost of purchasing water paid by the replenishment assessment and what to spend.¹¹⁹ The replenishment assessment is levied on each producer excess of said adjudicated share of the natural safe yield by the rate of replenishment assessment.¹²⁰

California law recognizes that the conjunctive use of groundwater and surface water is an effective way to increase reliability of the water supply so it has set aside grant money for conjunctive use projects. The money, upon appropriation by the Legislature to the department, may be used by the department for grants for feasibility studies, project design, or the construction of conjunctive use projects on a pilot or operational scale.¹²¹

3. Other Provisions of California Law

Given the lack of state regulation of ground water, four counties have passed their own laws to deal with ground water pumping. Below are two examples of what counties are doing to regulate ground water.

County Ordinances

The Orange County Water district act authorizes county officials to do the following:

1. Distribute water to persons in exchange for ceasing or reducing groundwater extractions;
2. Provide for conjunctive use;
3. Store water in underground basins;
4. Determine the amount and percentage of water produced from groundwater supplies within the district to the total amount produced within the district by all persons and operators and require that persons produce more or less of their water needs from the groundwater;
5. Investigate groundwater conditions of the district;

6. Levy an assessment.¹²²

The Mono County Tri-Valley Groundwater Management District Act authorizes their county management board to do the following:

1. Prepare an annual report on groundwater supplies and conditions in the district including groundwater management objectives and a plan of implementation of those objectives.
2. Store water either in reservoirs or in groundwater basins, acquire water, purchase and import water, buy and sell water, exchange water, commence and prosecute actions to enjoin unreasonable uses of water.
3. Issue water permits for the export of groundwater. In the event the board limits users because of overdraft, rights to use shall be allocated primarily on the basis of the number of acres overlying the basin or sub-basin that a user owns or leases in proportion to the total number of acres overlying the basin or sub-basin. The board will also consider the number of acres actually irrigated compared to the number of acres owned or leased, crop type, wasteful or inefficient use, reasonable need, water conservation activities, and other equitable factors.¹²³

Groundwater Recharge Fund

Under the 1985 Water Conservation and Groundwater Recharge Bond Fund, the legislature can appropriate money for loans to local agencies for projects to recharge groundwater reservoirs. The department may enter into a contract for a loan if it finds that the agency has the ability to repay the requested loan, that the project is economically justified, and that the project is feasible from an engineering and hydrogeologic viewpoint. However, any contract concerning an eligible project for artificial groundwater recharge shall include, in substance, all of the following requirements:

1. An estimate of the reasonable cost and benefit of the project, including a feasibility report which shall set forth the economic justification and the engineering, hydrogeologic, and financial feasibility of the project, and shall include explanations of the proposed facilities and their relation to other water-related facilities in the basin or region.
2. An agreement by the agency to proceed expeditiously to complete the project in conformance with the approved plans and specifications and the feasibility report and to operate and maintain the project properly upon completion throughout the repayment period.
3. Loans shall be for a period of up to 25 years with an interest rate set annually by the department at 50 percent of the average interest rate paid by the state on general obligation bonds in the calendar year immediately preceding the year in which the loan agreement is executed.

4. No single project may receive more than five million dollars (\$5,000,000) from the department.
5. The department shall give priority to projects of agencies located in overdrafted groundwater basins and those projects of critical need, to projects whose feasibility studies show the greatest economic justification and the greatest engineering and hydrogeologic feasibility as determined by the department, and to projects located in areas which have existing water management programs.

COLORADO

In Colorado, groundwater regulations depend on how the basin is classified. First, Colorado groundwater is broadly classified into designated groundwater (groundwater within a designated groundwater basin and not available to or required for fulfilling surface water rights) and non-designated groundwater (water located outside of designated groundwater basins). Designated groundwater is regulated by the Colorado Groundwater Commission (CGWC); non-designated groundwater is regulated by the State Engineer and Water Courts. Eight groundwater basins have been designated in the Front Range and in Eastern Colorado. Groundwater basins located outside of designated areas are classified into one of three following sub-categories: Tributary Groundwater, Non-tributary Groundwater, and Not Non-tributary Groundwater. Although Colorado law is quite complex it is built on the idea that groundwater and surface waters are interconnected, and groundwater is presumed to be tributary unless otherwise designated. The Colorado Geological Survey's *Groundwater Atlas of Colorado* is a comprehensive study of the location, geologic and hydrologic characteristics, and water quality of the state's major aquifers and groundwater resources.¹²⁴

1. Constitutional Provisions

Colorado is a traditional prior appropriation state. The Colorado Constitution establishes this regime in two sections that address water. First, Art. XVI. § 5 declares that water of streams is public property.¹²⁵ Art. XVI. § 6 states the right to divert unappropriated waters of any natural stream to beneficial uses shall never be denied. Priority of appropriation gives the better right. If there is insufficient water for all uses, domestic purposes have preferences over all other, and then agricultural purposes have a preference over manufacturing.

2. General Provisions Governing Groundwater

Categories of Groundwater

Colorado divides its water into two major categories, surface water and groundwater. Water courts adjudicate surface water. *Groundwater* is defined as any water not visible on the surface of the ground under normal conditions.¹²⁶ Groundwater is then further divided into designated basins, tributary water, non-tributary water, and not non-tributary water. The traditional prior appropriation system was modified when applied to groundwater in order to increase economic development. Colorado's legislature attempted to regulate pumping of groundwater and integrate surface water appropriation with groundwater appropriations when it passed the 1965 Groundwater Management Act and the 1969 Determination and Administration of Water Rights Act. The 1965 Groundwater Management Act differentiated groundwater by location and effect on surface water. The 1965 Act confirmed the standard of prior appropriation for

surface water, but implemented a modified prior appropriation system to determine groundwater rights to allow the full economic development of designated groundwater. The act protected prior appropriations of groundwater and maintained reasonable groundwater pumping levels, but prior appropriations of groundwater did not include the maintenance of historical water levels.¹²⁷ The four different kinds of groundwater are defined by this Act. Below is a summary of each type, but a detailed discussion follows.

Designated Water is not interconnected with surface water sources. The Colorado Groundwater Commission establishes designated groundwater basins and holds hearings to determine the extent of the basins. The Commission regulates the designated groundwater basins, and water courts have no authority. Water cannot be appropriated from a designated basin without a permit from the Groundwater Commission. The Commission is also responsible for the administration and the control of pumping in designated basins and has the power to limit extractions which interfere with the prior appropriations and establish reasonable pumping levels. The goal behind designated basins is to stop mining in these specific areas.

Tributary Water is water adjacent to and connected with streams. Water withdrawn that will deplete the natural stream's flow within 100 years of pumping at the rate of 0.1 percent of the annual rate is considered tributary. All groundwater is presumed to be of this type, but that presumption is rebuttable. Water courts have jurisdiction over Tributary Water. It is administered in conjunction with surface water and is governed by prior appropriation rules. Permits are issued via the 1969 Adjudication Act. The state engineer issues permits for new wells and regulates extractions under the priority system to minimize the effects of groundwater withdrawal on senior surface water right holders.

Non-tributary Groundwater is water outside designated basins that is not connected to surface water. More specifically, it will not deplete the flow of a natural stream within 100 years. The doctrine of prior appropriation does not apply to non-tributary groundwater. Thus, it will be allocated based on ownership of overlying land. Reduction of hydrostatic pressure levels and aquifer water levels are allowed for the economic development of this resource. Water courts may decree rights to non-tributary water outside of designated groundwater basins according to overlying land ownership, a hundred year aquifer life, and a withdrawal rate not exceeding one percent per year.¹²⁸ Its withdrawal is only limited by beneficial use in amounts based upon conservation of the resource and protection of vested water rights. Non-tributary groundwater is regulated by the state engineer and a permit from the state engineer is required before drilling a well.

Not Non-tributary Groundwater is water in the Dawson, Denver, Arapahoe, and Laramie-Fox Hills aquifers (Denver Basins) that does not satisfy the definition of non-tributary groundwater. Permits are issued by the water courts. The permits for withdrawals must include augmentation plans. Augmentation plans specify replacement water if needed to prevent injury to senior water users. These plans mitigate damages to both surface- and groundwater users. This category is aimed at protecting four aquifers underlying the Denver metropolitan area. Landowners are limited to withdrawing only

the amount of water determined to be underlying the owned land, and annual withdrawals are limited to one percent of the available water.¹²⁹

Water Boards and Basins

The 1965 Act also created the Water Conservation Board. Its duty related to groundwater is to study, to determine the nature and the extent of the groundwater resources of the state; and to examine the effects of withdrawals of groundwater upon aquifer supply and surface flow.¹³⁰ The Act also authorizes the creation of groundwater management districts and boards. The district board works with the commission on all groundwater matters affecting the district to determine whether proposed regulations are suitable for the area. The board is also to assist the commission and the state engineer to conserve the groundwater supplies of the area for the maximum beneficial use.¹³¹ The district board also has the authority to regulate the use, control, and conservation of the groundwater of the district covered by permits issued by the commission.

The 1969 Determination and Administration of Water Rights Act created seven divisions along major hydrographic divides with separate water courts and gave them jurisdiction over all surface water and groundwater tributary to surface water.¹³² One of the purposes of the act was to focus on the development and use of underground waters of the state, and the Act claims the future welfare of the state depends upon a sound and flexible integrated use of both surface and groundwater.¹³³

The 1969 Act integrated tributary groundwater into the surface water regime. Tributary water is administered under the prior appropriation system and the water courts have jurisdiction over it. The 1969 Act also stated that “it is the policy of the state to integrate the appropriation, use and administration of underground water tributary to a stream with the use of surface water in such a way as to maximize the beneficial use of all of the water of this state.”¹³⁴ The same statute also claims that the existing use of groundwater, either independently or conjunctively with surface water, shall be recognized to the fullest possible extent, subject to preserving existing rights. In addition it goes on to maintain that the use of groundwater may be considered as an alternate or supplemental source of supply for surface decrees entered prior to June 7, 1969.¹³⁵

Designated Basins

As stated above, the 1965 Act also created designated basins. These basins are taken out of water courts’ jurisdiction and given to the Groundwater Commission. The Commission determines and administers water rights in designated basins. Any person desiring to appropriate groundwater for a beneficial use in a designated groundwater basin applies to the commission in a prescribed form.¹³⁶ The applicant must include the basin from which water will be appropriated, the beneficial use for the water, the location of the proposed well, the name of the owner of the land of the proposed well, the estimated average annual amount of water applied for in acre-feet, the estimated

maximum pumping rate in gallons per minute and the description of the land to be irrigated if appropriate.¹³⁷

When the commission receives an application, it makes a preliminary evaluation to determine if the application may be granted. If so, the application is published and objections may be filed. If there are no objections, the commission grants the application if it finds the appropriation will not unreasonably impair existing water rights from the same source and will not create unreasonable waste. The state engineer then issues a conditional permit.¹³⁸ If there are objections, the commission holds a hearing. After the hearing, if it appears that there is no unappropriated water or the appropriation will unreasonably impair existing rights or will create unreasonable waste, the application will be denied; otherwise the state engineer will issue a conditional permit.¹³⁹

When determining if the use will cause unreasonable waste or unreasonably affect other rights, the commission shall consider the area, geographic conditions, average yield and recharge rate, priority and quantity of existing claims, proposed method of use, and all other appropriate matters.¹⁴⁰ An *impairment* is the unreasonable lowering of the water level or the unreasonable deterioration of water quality, beyond reasonable economic limits of withdrawal or use.¹⁴¹ The three-mile test is used in certain designated basins to assess the effect of the proposed use on other users in the district. Under the three-mile test, a circle with a three-mile radius is drawn around the proposed well site. A rate of pumping is determined which would result in a 40% depletion of the available groundwater in that area over a period of 100 years. If the rate of pumping is already being exceeded by the existing wells, the new application may be denied.¹⁴² If a well application cannot be granted under the above limitations, a well permit may still be issued upon approval of the commission of a replacement plan.¹⁴³ A replacement plan is a detailed program to increase the supply of water available for beneficial use in a designated basin for the purpose of preventing material injury to other water rights by the development of new points of diversion, by pooling water resources, by water exchange projects, by providing substitute water supplies, by development of new sources of water or any other suitable means.¹⁴⁴ The commission must approve a replacement plan.¹⁴⁵

After receiving a permit, the applicant has one year from the date of the issuance of the permit to construct the well or other necessary works to apply the water to a beneficial use. After completion of the well, the applicant has three years from the date of the issuance of the permit to actually put the water to a beneficial use.¹⁴⁶ If the commission finds the water has been put to a beneficial use supported by a sworn affidavit as evidence provided by the applicant, after publication of the information required in the final permit, the commission shall order the state engineer to issue a final permit to use designated groundwater containing such limitations and conditions as the commission deems necessary to prevent waste and protect the rights of other appropriators.¹⁴⁷ The final permit will contain the priority date, the name of the claimant, the quarter-quarter in which the well is located, the maximum annual volume of the appropriation in acre-feet per year, the maximum pumping rate in gallons per minute, and the maximum number of acres which have been irrigated if applicable.¹⁴⁸

The state engineer has power to enforce this administration and may require valves, impart construction standards, gain access to inspect wells, order the cessation of the use of a well pending correction of the defect, and enjoin the illegal withdrawal of water. The state engineer also has the authority to approve permits for small capacity wells in designated basins if the wells do not exceed 50 gallons per minute and are used in the normal operation of a single-family dwelling, in watering of livestock, in one commercial business, in exclusively monitoring purposes, or in fire fighting.¹⁴⁹

Non-designated Basins

If the groundwater is non-tributary water outside the designated basin, then permits are issued based on an aquifer life of 100 years.¹⁵⁰ The amount of groundwater available for withdrawal is the quantity of water underlying the land owned by the applicant. An applicant may withdraw water from another's land only with the original owner's consent. The Division of Water Resources published rules and regulations applying to well permits to withdraw groundwater.¹⁵¹ The allowed annual withdrawal is based on an aquifer life of 100 years, and the allowed average annual amount of withdrawals for all of the wells on the overlying land is not to exceed one percent of the total amount of water, exclusive of artificial recharge, recoverable from a specific aquifer beneath the overlying land. The total amount of water recoverable from a specific aquifer is determined by multiplying the number of acres of overlying land by the average number of feet of saturated aquifer materials in the aquifer underlying those lands by the average specific yield of those saturated aquifer materials. The allowed average annual amount of withdrawal shall be one percent of the total recoverable water.¹⁵² A well shall not be constructed 600 feet within any permitted or existing well.¹⁵³

Denver Area Basins

Denver area basins include the Dawson, Denver, Arapahoe, and Laramie-Fox Hills aquifers that are not part of designated basins. For proposed wells outside designated groundwater basins, the user must apply to the state engineer to withdraw non-tributary or not non-tributary groundwater in these aquifers. The state engineer determines if the requested permit will materially injure the vested water rights of others.¹⁵⁴ If the state engineer finds that there is unappropriated water available for withdrawal by the proposed well and that vested water rights will not be materially injured and can be substantiated by hydrological and geological facts, the state engineer issues the permit. The Division of Water Resources has also promulgated rules and regulations applying exclusively to the withdrawal of groundwater from this basin which assign specific yields for each aquifer and the location of the water table for each aquifer.¹⁵⁵ Landowners are limited to withdrawing only the amount of water determined to be underlying the owned land, and annual withdrawals are limited to one percent of the available water.¹⁵⁶

Tributary Groundwater

Water courts adjudicate both surface water and tributary groundwater as an integrated system. To withdraw water, an applicant must first show there is still unappropriated water available and that he can and will place the water to a beneficial use with diligence within a reasonable time.¹⁵⁷ Each water court publishes a monthly resume containing all the applications received. Other parties may file a statement of opposition with the water court. The referee of each district has the authority to rule upon determinations of water rights and conditional water rights. The referee looks for a diversion, injury to other users, waste and beneficial use; *beneficial use* is the limit of a water right. Users may not take more water than needed. The state engineer is responsible for the administration and distribution of the water.¹⁵⁸

Tributary wells are divided into two types, exempt and non-exempt. The following are exempt wells:

1. Wells in designated groundwater basins;
2. Wells not exceeding 15 gallons a minute used for household purposes, fire protection, the watering of poultry or livestock, and for the irrigation of not over one acre of home gardens and lawns;
3. Wells not exceeding 15 gallons a minute and used for drinking and sanitary facilities in individual commercial business;
4. Wells used for firefighting only;
5. Wells not exceeding 50 gallons/minute in production as of May 22, 1971 and used for ordinary household purposes; and
6. Wells used exclusively for monitoring purposes.¹⁵⁹

All other wells are considered non-exempt. Exempt wells still need to apply for permits from the state engineer, but are exempt for the administration within the priority system.

Not Non-tributary Groundwater

Not non-tributary is groundwater in the Dawson, Denver, Arapahoe, and Laramie Fox Hills aquifers that does not satisfy the definition of non-tributary and is outside any designated basins.¹⁶⁰ Owners of not non-tributary Dawson aquifer wells are required to replace the actual depletions from pumping; while owners of not non-tributary Denver, Arapahoe, and Laramie-Fox Hills aquifer wells are required to replace actual depletions only if the well is located within one mile of the aquifer or stream contact. For wells beyond the one-mile band, the replacement amount is four percent of the annual amount of withdrawal.¹⁶¹

3. Other Provisions

Colorado allowed for a test of water banking in the Arkansas River basin in 2001.¹⁶² The rules governing the Arkansas River Water Bank Pilot Program expressly exclude groundwater from water available to be banked.¹⁶³ In 2003, the Colorado legislature extended the water banking program to all water districts that requested the program. It remains to be seen if these 2001 regulations will act as guidelines for new regulations promulgated under this new statute and if groundwater is excluded from this program.

Colorado also allows underground storage of water. *Storage* is defined as the impoundment, possession, and control of water by means of a dam. Waters in underground aquifers are not defined as storage except to the extent waters are placed there by other than natural means. Water placed in an underground aquifer is subject to a conditional or decreed right. The Denver Basin aquifers have specific rules and regulations for the permitting and use of water artificially recharged into the aquifers.¹⁶⁴ A recent Colorado Supreme Court decision found that water stored in an aquifer that enters portions of an aquifer beneath neighboring property does not constitute a trespass, so the permission of overlying owners is not necessary. Also, the court found there was no injury because no construction occurred on the neighbor's property.¹⁶⁵

In Colorado, it is unlawful to divert, carry, or transport by ditches, canals, pipes, conduits, natural streams, watercourses, or any other means any of the water resources found in the state into any other state unless the party obtains a permit to construct a well; if a well permit is not required, the user must obtain an adjudication from the water court for the right to use water outside the state. If a permit has already been issued, a change in use to use outside the state must be approved. Prior to approving an application, the state engineer, groundwater commission or water judge must find that (1) proposed use outside the state is expressly authorized by interstate compact or credited as a delivery to another state pursuant to state law or that the proposed use does not impair the ability of this state to comply with its obligations under any judicial decree or interstate compact, (2) the proposed use of water is not inconsistent with reasonable conservation, and (3) the use will not deprive citizens of the state of the beneficial use of waters apportioned to it by interstate compact or judicial decree.¹⁶⁶

Finally, inter-basin use of surface water is allowed in Colorado. An appropriator of surface water is not restricted to the basin of origin and this also applies to groundwater with the exception of designated basins. In designated basins, the district may prohibit the use of groundwater outside the boundaries of the district if that would materially affect the rights of any owner or operator of land within the district.¹⁶⁷

IDAHO

The Idaho legislature determined that groundwater was subject to appropriation in 1951. Domestic wells do not require a permit, but all other appropriations of groundwater do require a permit and license. The state has in place a complicated scheme of conjunctive management. State law requires the Department of Water Resources (DWR) to designate and manage critical groundwater areas and groundwater management areas. Permits may be denied in critical groundwater areas that lack a “reasonably safe supply” for uses at current withdrawal rates; permits in groundwater management areas that have not yet reached critical status are granted only if the DWR determines there is sufficient water. In 2002, the state began implementing the conjunctive administration of groundwater and surface water, including rules for determining when junior rights should be limited and prohibitions on unauthorized uses of water. Idaho’s Water Resources Board operates a water bank

1. Constitutional Provisions

The Idaho Constitution has an entire article dedicated to water rights. First, the use of waters is declared public use subject to the regulations and control of the state in a manner prescribed by law.¹⁶⁸ The right to divert and appropriate the unappropriated waters of any natural stream to beneficial uses shall never be denied, except that the state may regulate and limit the use for power purposes.¹⁶⁹ Priority of appropriation shall give the better right as between those using the water.¹⁷⁰ The Constitution also gives preferences to domestic uses over all other uses and agricultural purposes over manufacturing. Also, in any organized mining district, water for mining purposes or milling purposes connected with mining, shall have preference over manufacturing or agricultural purposes. When waters have been appropriated, the dedication is exclusive and the holder shall not be deprived of the annual use of the same when for domestic purposes or irrigation.¹⁷¹ For persons who settled on land expecting water for agricultural purposes, priority of time shall give the superior right, but when supply is insufficient, the prior right shall be subject to reasonable limitations such as quantity and times of use.¹⁷² Finally, the State Water Resource Agency has power to operate water projects, appropriate public waters as trustee for agency projects, and formulate and implement a state water plan for optimum development of water resources in the public interest.¹⁷³

2. General Provisions

Water is administered by the Department of Water Resources (DWR). The director of the department is to supervise water distribution within water districts among appropriators and to adopt rules and regulations for distribution, pumping levels, and other matters.¹⁷⁴ The director was directed to divide the state into water districts so each public stream and its tributaries constitute a water district.¹⁷⁵ On a district level, a watermaster distributes the water in each district according to the prior rights of each user and shuts the headgates in times of scarcity or to supply the prior rights of others.¹⁷⁶ The

department also contains the Water Resources Board, responsible for implementing a comprehensive state water plan for conservation, development, management and optimum use of all unappropriated water resources and waterways in the public interest subject to legislative approval.¹⁷⁷

Groundwaters are public waters.¹⁷⁸ Groundwater is treated the same as surface water and both are acquired by prior appropriation. *Groundwater* is defined as all water under the surface of the ground whatever the geological structure in which it is standing or moving.¹⁷⁹ Right to unappropriated waters including groundwater shall be acquired only by appropriation under an application, permit and license procedure.¹⁸⁰ Appropriation must be for a beneficial purpose and if the appropriator ceases to use the water, the right also ceases.¹⁸¹ Priority is first in time, first in right.¹⁸² Domestic purposes is limited to water for homes, organization camps, public campgrounds, livestock and for any other connected purpose including irrigation of up to one-half acre of land if the total use is not in excess of 13,000 gallons per day or any other uses if total use does not exceed a diversion rate of four one-hundredths cfs and a diversion volume of 2,500 gallons per day.¹⁸³ Wells for domestic purposes do not require a permit, provided they are subject to inspection by the DWR and the Department of Environmental Quality and the drilling is authorized by a license.¹⁸⁴ Rights to groundwater for domestic purposes may be acquired by withdrawal and use.¹⁸⁵ Any application for a water permit that seeks to transfer groundwater outside the immediate basin for the purposes of irrigating 5,000 or more acres on a continuing basis for an excess of 10,000 acre feet per year must be approved by the director and the Idaho legislature.¹⁸⁶

Administrative rules deal with how to manage the conjunctive use of surface and groundwater. These rules prescribe procedures for responding to a delivery call made by the holder of a senior-priority surface or groundwater right against the holder of a junior priority groundwater right in an area having a common groundwater supply.¹⁸⁷

Critical Groundwater and Groundwater Management Areas

Groundwater areas can be designated either a critical groundwater area or a groundwater management area. A critical groundwater area does not have sufficient groundwater to provide a reasonable safe supply for irrigation or other uses at the current rates of withdrawal.¹⁸⁸ The director may approve a groundwater management plan that provides for managing the effects of groundwater withdrawals on the aquifer or on any other hydraulically connected sources of water.¹⁸⁹ If an application is made for a critical area, the director may deny the application if he finds from investigation that there is insufficient water available at the location. Within a critical area, the director may require all right holders to report withdrawals of groundwater and other necessary information for the purpose of assisting him in determining available groundwater supplies and their usage. Upon determination that there is insufficient groundwater supply to meet the demands of water right holders within all or portions of a critical groundwater area, the director shall order water rights holders on a time priority basis to

cease or reduce withdrawal of water until the director determines there is sufficient groundwater.¹⁹⁰

A groundwater management area is any groundwater basin or designated part that may be approaching the conditions of a critical groundwater area.¹⁹¹ They are treated the same as critical areas in many ways. The director may approve a groundwater management plan for these areas that will provide for managing the effects of groundwater withdrawals on the aquifer and on any other hydraulically connected sources of water. The director may require all water right holders to report withdrawals of groundwater and other necessary information for determining available groundwater supplies and their usage. Upon determination that there is insufficient groundwater supply to meet the demands of water rights holders within all or a portion of a water management area, the director shall order rights holders on a time priority basis to cease or reduce withdrawal of water until the director determines there is sufficient groundwater.¹⁹² Management area applications for permits have a slightly lower standard than critical areas. Applications made within a groundwater management area shall be approved by the director only after he has determined on an individual basis that sufficient water is available and that other prior water rights will not be injured.¹⁹³

Within two years after a decree determining the water rights within a critical groundwater area becomes final, the director of the department of water resources will make a finding as to whether an adequate management program exists to bring withdrawals into balance with recharge.¹⁹⁴

Groundwater Withdrawals

Any person intending to use groundwater must apply to the department of water resources for a permit before commencing construction.¹⁹⁵ An application must include the nature of proposed uses, the location of the diversion, the amount of water to be diverted, and the time required for completion of the project.¹⁹⁶ The application must also include a plan and map of the proposed works for the diversion and application of the water to a beneficial use, showing the location and dimensions of the proposed reservoir, dams, canals, etc. and the area and location of the lands proposed to be irrigated, or location of use.¹⁹⁷ All rights to use water acquired will be lost and forfeited by a failure for the term of five years to apply it to the beneficial use for which it was appropriated.¹⁹⁸ The water will then revert to the state and be subject for appropriation.¹⁹⁹

Upon receipt of an application to appropriate the water, the department of water resources publishes a notice in a newspaper printed in the county where the point of diversion lies.²⁰⁰ Any person concerned with the application may file a written protest.²⁰¹ A hearing must be held if there are protests; if no protest is filed, then the director of the department may approve the application.²⁰² The director of the department of water resources may reject an application for any one of the following reasons:

1. It will reduce the quantity of water under existing water rights;
2. The water supply itself is insufficient for the purpose for which it is sought to be appropriated;
3. It appears to the satisfaction of the director that such application is not made in good faith, is made for delay or speculative purposes;
4. The applicant has not sufficient financial resources with which to complete the work involved;
5. It will conflict with the local public interest;
6. It is contrary to conservation of water resources within the state; or
7. It will adversely affect the local economy of the watershed or local area within which the source of water for the proposed use originates in the case where the place of use is outside of the watershed or local area where the source of water originates.²⁰³

Adjudication of Water Rights

If an owner of a groundwater right believes her right is being adversely affected by a user with a later priority, she may make a written statement to the director.²⁰⁴ Local groundwater boards are formed for hearing these claims.²⁰⁵ The board consists of the director, a qualified engineer or geologist, and a third member appointed by the other two who shall be a resident irrigation farmer.²⁰⁶ The board has the authority to determine the existence and nature of the respective water rights claimed by the parties and whether the use of the junior right affects the use of the senior.²⁰⁷ If the board finds the junior use affects the senior, the board may order the junior right to cease using the right to protect the senior.²⁰⁸

Any claimant may also file suit in the district court for the purpose of adjudicating rights to the use of water from any water system for which a general adjudication has not been commenced or completed in the county where the point of diversion or place of use of the claimed right is located.²⁰⁹ The claimant must join all other water users from the water system whose joinder is necessary to resolve the dispute over rights to the use of water from the system. Five or more or a majority of the users of water from any water system may petition the director to request the attorney general to file an action to commence a general adjudication.²¹⁰ If the director deems that the public interest and necessity will be served by a determination of the water rights of that water system, the director shall request the attorney general to file an action to commence the general adjudication. The director may also request adjudication on his own initiative.²¹¹ Each claimant of a water right acquired under state law has the ultimate burden of persuasion for each element of a water right.²¹²

3. Other Provisions

Idaho's legislature encourages groundwater recharge projects.²¹³ Appropriation and underground storage of water for purposes of groundwater recharge is a beneficial use and the Department of Water Resource may issue permits for the appropriation and underground storage of unappropriated waters in an area of recharge.²¹⁴ These rights are secondary to all prior perfected water rights. Incidental recharge may not be used as the basis for a claim of a separate or expanded water right.²¹⁵ In 1997 the state legislature enacted a pilot program for four counties, Jerome, Lincoln, Gooding and Twin Falls counties.²¹⁶

Any person intending to withdraw water from any underground water source in the state and transport it for use outside the state must meet all normal requirements for any water appropriation and the director must also find the use of water outside the state is consistent with minimum stream flow requirement. He will also consider the following:

1. Supply of water available to the state of Idaho
2. The current and anticipated water demands of Idaho
3. Whether there are anticipated water shortages in Idaho:
 - a. If the water subject to appropriation would alleviate anticipated shortages;
 - b. Supply and sources available in the state of use; and/or
 - c. Demands placed on the supply in the state of use.²¹⁷

MONTANA

Montana state law provides that water resources be put to the optimum beneficial use without waste.²¹⁸ The state seeks to promote the conservation, development, and beneficial use of the state's water to secure maximum economic and social prosperity for its citizen and to protect and conserve adequate supplies of water for public recreation and for the conservation of wildlife and aquatic life.²¹⁹ The Department of Natural Resources coordinates the development and use of water and is required to adopt and amend a State water plan that establishes programs for the conservation, development, and utilization of the water and proposes ways to apply the water for the benefit of the people.²²⁰ The state also implemented a Groundwater Plan in 1999. The Montana Groundwater Plan sets forth recommendations for improving public and private management of the State's groundwater with a goal of sustaining current and future uses.²²¹ In addition, the state created a groundwater characterization program which systematically assesses and documents the hydrogeology and quality of the state's major aquifers, and implemented a groundwater monitoring program which produces and maintains a long-term record of groundwater chemistry and water level changes based on information collected from a statewide network of observation wells.²²²

1. Constitutional Provisions

The new Montana Constitution ratified in 1972 recognized and confirmed all existing rights to use the waters for any useful or beneficial purpose.²²³ All surface, underground, flood and atmospheric waters within the boundaries of the state are the property of the state subject to appropriation for beneficial uses as provided by law.²²⁴ In addition, the Constitution requires the legislature to provide for the administration, control and regulations of water rights and establish a system of centralized records.²²⁵

2. General Provisions

Under Montana law, *groundwater* means any water that is beneath the ground surface.²²⁶ In 1979, the Montana Supreme Court issued an order to commence procedures for the general adjudication of existing rights to the use of water.²²⁷ All persons claiming an existing right to use water were given a three-year window to file their use with the department.²²⁸ The order declared that failure to file a claim as required by law would result in a conclusive presumption that the water right or claimed water right has been abandoned.²²⁹ Claims for existing rights for livestock and individual domestic uses based upon instream flow or groundwater sources and certain claims for rights in the Powder River basin were exempt from the filing requirement, but the claims could be voluntarily filed.²³⁰

Montana is divided into four water divisions and the Water court presides over each division for the purpose of adjudicating existing water rights. Since all claims cannot be adjudicated at once, claims are being decreed basin by basin for each of Montana's 85 basins.²³¹

Prior Appropriation

Montana is a prior appropriation state for groundwater,²³² but priority does not include the right to prevent changes by later appropriators in the condition of water occurrence, such as the increase or decrease of the water table, artesian pressure, or water level, if the prior appropriator can reasonably exercise the water right under the changed conditions.²³³ If an appropriator ceases to use all or part of an appropriation with the intention of abandoning the right or if the appropriator ceases using the appropriation right according to its term or ceases to use the right for a period of ten successive years, the right is considered abandoned and must immediately expire.²³⁴ District courts supervise the distribution of water among all appropriators.²³⁵

A person may not appropriate water or commence construction of diversions without a permit from the Department of Natural Resources.²³⁶ There are different criteria for obtaining a permit depending on how much water the application requires. If the amount is less than 4,000 acre feet, then the applicant must prove by a preponderance of evidence that:

1. The water is physically and legally available at the point of diversion in the amount the applicant seeks;
2. The water rights of a prior appropriator will not be adversely affected;
3. The proposed means of diversion, construction, and operation are adequate;
4. The proposed use is beneficial; and
5. The applicant has a possessory interest, or written consent from a person with possessory interest, in the property where the water is to be beneficially used.²³⁷

If the appropriation is for 4,000 or more acre-feet of water a year and 5.5 or more cubic feet per second of water, the applicant must also prove all the above requirements but by clear and convincing evidence. In addition, the applicant must prove by clear and convincing evidence that the proposed appropriation is for a reasonable use. Follows is a list of what reasonable use is based on:

1. The existing demands on the state water supply as well as projected demands and minimum stream flows for the protection of existing water rights and aquatic life;
2. The benefits to the applicant and the state;
3. The effects on the quantity and quality of water for existing beneficial uses in the source of supply;

4. The availability and feasibility of using low-quality water for the application's purpose;
5. Effects on private property rights by any creation of or contribution to saline seep; and
6. The probability of significant adverse environmental impact of the proposed use of water as determined by the department.²³⁸

The above standards apply to all water appropriations, but groundwater has an additional requirement which is: the department may not approve a permit to appropriate groundwater in excess of 3,000 acre-feet per year unless the applicable criteria for issuing a permit is met and the department petitions the legislature and the legislature affirms the decision of the department after one or more public hearings.²³⁹ This limitation does not apply to appropriations by municipalities for municipal use or to appropriation for public water supplies.²⁴⁰

Limits on Appropriations

There are two methods for limiting groundwater appropriations in Montana. The first is by creating control areas, which only applies to groundwater withdrawals. The second is by a legislative or administrative order. The department may control withdrawals from certain areas by designating them as control areas. For an area to be eligible for controlled status, the groundwater withdrawals must be within the following parameters:

1. Must be in excess of recharge;
2. Excessive groundwater withdrawals are very likely to occur in the near future based on current increases in withdrawals;
3. Significant disputes regarding priority of rights, amount of water in use, and other issues are in progress;
4. Groundwater levels are declining or have declined excessively;
5. Excessive groundwater withdrawals would cause contaminated migration;
6. Groundwater withdrawals adversely affecting water quality are occurring or are likely to occur; and
7. Water quality in the area is not suited for a specific beneficial use.²⁴¹

Three entities may request a designation of control areas. The department may make such a motion, a state or local public health agency may petition for identified public health risks, or water users may petition for the designation. After holding a public hearing, the department may designate the area as controlled if the public health, safety, or welfare requires such action and if there is either wasteful use from wells or undue interference with existing wells.²⁴²

Once an area is designated as controlled, the order may allow closing the controlled groundwater area to further appropriation. The order may determine a permissible total withdrawal of groundwater in the controlled area by day, month, or year and allow the department to apportion the permissible totals among appropriators holding

valid rights to use groundwater in the control area in accordance with the priority dates. The order may also accord preference to certain uses like domestic without reference to the priority date. The department may reduce the permissible withdrawal of groundwater by any appropriator in the control area or require a rotation system. The department may make any additional requirements that are necessary to protect the public health, safety and welfare of the state.²⁴³

If, after the hearing, there is not sufficient evidence to designate the area as controlled, the department may order it to be a temporary controlled groundwater area. The order may include all the corrective provisions as a control area, but may only continue for two years. The order may be extended for an additional two years if there is sufficient cause. During the two-year period, the department must study the area to assist in the designation of the area.

To receive a permit in a control area, an appropriator must follow the same procedure as described above. The department may not grant a permit if the withdrawal would be beyond the capacity of the aquifer to yield groundwater within a reasonable or feasible pumping lift or within a reasonable or feasible reduction of pressure.²⁴⁴

The second way to limit appropriations is for the legislature to preclude permit applications by law or the department may by rule reject permit applications or condition permits already issued by rule. A petition must be signed by at least 25 percent or ten of the users of water in the source, whichever is less, or upon petition of the Department of Environmental Quality. The petition must allege either there is no unappropriated water in the source, rights of prior appropriators will be adversely affected, further uses will interfere unreasonably with other planned uses for which a permit has been issued, or water quality issues.²⁴⁵

This method of limiting appropriations has been used multiple times in Montana, but has usually excluded groundwater. For example, the legislature has closed the Teton River Basin to future appropriations, but the closure does not apply to groundwater.²⁴⁶ The legislature also closed the Upper Clark Fork River basin.²⁴⁷ This closure also does not apply to groundwater, but another statute requires a report addressing the hydrologic connection between the source of the groundwater and surface water for groundwater applications in the Upper Clark Fork River.²⁴⁸ The department may issue a permit to appropriate groundwater if the applicant includes an augmentation plan and if the applicant proves by a preponderance of evidence, in addition to other permit criteria, that the augmentation plan provides sufficient augmentation water in amount, time, and location to replace depletions of senior water rights.²⁴⁹ In addition, multiple administrative rules have been passed that close basins to surface application, but allow groundwater applications if the applicant provides sufficient factual information so the department can determine if the source of the groundwater is part of or substantially connected to surface water.²⁵⁰ The legislature has also closed the Jefferson River basin and the Madison River basin.²⁵¹ This also excludes groundwater, but groundwater is defined as any water beneath the land that is not immediately or directly connected to surface water.²⁵² A similar statute applies to the upper Missouri River basin.

The department has also promulgated special administrative rules that only apply to Yellowstone National Park.²⁵³ Applicants within the Park must meet all the ordinary requirements. Permits issued must also comply with the U.S. National Park Service-Montana Compact. The rule requires a well log report and supplement after drilling the well. Only the National Park Service can object to these permits.

Beneficial Uses

The state, any political subdivision or agency of the state, or any federal agency may apply to the department to obtain a state water reservation for existing or future beneficial uses or to maintain a minimum flow, level, or quality of water throughout the year.²⁵⁴ The application follows the same procedure as application for the use of water.²⁵⁵ The applicant must establish to the satisfaction of the department by a preponderance of evidence the purpose and need for the reservation, the amount of water necessary for the purpose of the reservation and that the reservation is in the public interest.²⁵⁶

3. Other Provisions

Compacts

Many of the state's compacts with both Indian reservations and with the U.S. government do include groundwater provisions in the terms. For example, the Fort Peck Indian/Montana compact states the tribes of the Fort Peck Indian Reservation have the right to divert from the Missouri River and groundwater beneath the Reservation a specific quantity of water.²⁵⁷ The compact with the National Park Service also includes limitations on groundwater appropriations.²⁵⁸

Out of State Use

The department cannot approve a permit for out-of-state use unless the applicant proves by clear and convincing evidence that the applicant meets the in state permit conditions which vary depending on the amount of the appropriation. The applicant must then show the out-of-state use is not contrary to water conservation in Montana and the out-of-state use is not otherwise detrimental to the public welfare of the citizens of Montana. The department will consider the factors that influence in-state needs like whether there are present or projected water shortages within the state of Montana and if the proposed water could feasibly be transported to alleviate water shortages within the state. The department will also consider the state of use's water supply availability to the applicant, and the demands placed on the applicant's supply in the state where the applicant intends to use the water.²⁵⁹

Oil and Gas Development

Within a designated controlled groundwater area where oil and/or gas wells produce water associated with oil and gas, the volume of production is dependent entirely on the oil and or gas withdrawals, and under the jurisdiction of the Board of Oil and Gas Conservation. This board holds hearings pertaining to the production, use, or disposal of water from those wells. The department may only petition the board of oil and gas conservation for hearings.

Coal bed methane extraction is distinguished from other oil and gas wells. Groundwater produced in association with a coal bed methane wells must be managed either by using it for irrigation or stock water or for any other beneficial use, reinjected to an acceptable subsurface strata or aquifer, discharged to the surface or surface waters or managed through other methods allowed by law.²⁶⁰ A developer of a coal bed methane well that involves groundwater which is a source of supply for appropriative rights holders must offer reasonable mitigation to each appropriator of that water who holds an appropriation right or a permit that is within one mile of the coal bed methane well or one-half mile of a well that is adversely affected by the coal bed methane well.²⁶¹ The mitigation must address the reduction or loss of water resources and provide for prompt supplementation or replacement of water adversely affected by the well. The mitigation is not required to address a loss of well productivity if it does not result in a reduction in the amount of water available.²⁶²

NEVADA

Under Nevada law, groundwater and surface water are regulated separately under prior appropriation rules; yet in practice, they are managed conjunctively. State law also provides a method for storing surface water underground and then recovering for future use. The mission of the Department of Conservation and Natural Resources - Division of Water Resources is to conserve, protect, manage and enhance the State's water resources for Nevada's citizens through the appropriation and reallocation of the public waters.

1. Constitutional Provisions

The Nevada Constitution provides that the legislature may not restrict municipalities in their procurement of water.²⁶³

2. Major Provisions

All water in the state may be appropriated for beneficial use; beneficial use shall be the basis, the measure, and the limit of the right to use the water.²⁶⁴ Water rights are limited to a reasonable amount for beneficial use and for irrigation purposes.²⁶⁵ Water is appropriated through permits granted by the state engineer; when two or more applications are made for irrigation from the same basin, the state engineer shall observe the following priorities: (1) owner of land for use on that land, and (2) owner of land for use on adjacent land for which he intends to file an application.²⁶⁶ The state engineer shall approve an application if it is accompanied by the prescribed fees, does not adversely affect the cost of water for other water right holders or lessen the efficiency in delivery, and the applicant proves good faith intent to apply to beneficial use, financial ability and reasonable diligence. The Engineer must approve or reject within one year after the final date for filing a protest and must reject the application if there is no unappropriated water or it is not in the public interest.²⁶⁷

Underground waters belong to the public and are subject to appropriation for beneficial use.²⁶⁸ The engineer can designate basins either by petition or by calling a public hearing. Once a basin is designated, parties must apply and obtain from the state engineer a permit to appropriate the water before performing any work in connection with the boring or sinking of the well. In basins that have not been designated, no permit is necessary until after the well is sunk or bored and water is developed.²⁶⁹ The state engineer may only issue permits if there is unappropriated water.

Each permit is issued on the condition that the right is related to a specific quantity of water and that right must allow for a reasonable lowering of the static water level at the appropriator's point of diversion. The engineer may grant a permit that lowers the point of diversion of a prior appropriator, so long as any protectible interests in existing domestic wells and the rights of holders of existing appropriations can be satisfied under such express conditions. If the well is for municipal, quasi-municipal or

industrial use and the reasonably expected rate of diversion is one-half cubic foot per second or more, the engineer shall include as a condition that the right to pump water may be limited or prohibited to prevent any unreasonable adverse effects on an existing domestic well located within 2,500 feet of the well, unless the holder of the permit and the owner of the domestic well have agreed to alternative measures that mitigate those adverse affects.

The engineer may also issue rules and regulations for designated areas if the basin is being depleted. He may also designate preferred uses of water and issue temporary permits, and may revoke them if and when water can be furnished by an entity such as a water district.²⁷⁰ Permits are not required for wells for domestic purposes where the withdrawal does not exceed 1,800 gallons/day.²⁷¹

3. Other Provisions

Projects for recharge, storage and recovery of water require a permit.²⁷² The California-Nevada Interstate Compact authorizes each state to develop groundwater as long as they don't reduce the amount of water the other state would have received if groundwater were not developed.²⁷³

NEW MEXICO

New Mexico residents are particularly dependent on groundwater. Groundwater is considered to be public water that is subject to appropriation for beneficial use. The state is divided into 33 groundwater basins, and each basin has a declared date. Water put to beneficial use before that date is recognized as a water right; withdrawals after that date require a permit. Groundwater can be mined as long as that does not cause the aquifer to decline at a rate faster than that which is allowed by the state engineer. Groundwater and surface waters are conjunctively managed: groundwater rights are subject to prior appropriations and applications for new wells must show that drilling will not impair existing rights. Depletion of groundwater may be required to be offset by a return of water to rivers. The City of Albuquerque, for example, offsets water it depletes from wells by returning treated effluent water to the Rio Grande River. The state has developed water banks and water leasing arrangements to deal with prolonged drought. For example, it launched in 2002 a water banking system along the Pecos River in Eastern New Mexico to encourage farmers to make available water that could be delivered to Texas in order to satisfy a compact between the two states. The legislature has also authorized the underground storage and recovery of water so that depleted aquifers can be used as underground reservoirs to store injected water.

1. Constitutional Provisions

The New Mexico Constitution provides that "all existing rights to the use of any waters in this state for any useful or beneficial purpose are hereby recognized and confirmed"²⁷⁴ and that the water rights available to the public are subject to prior appropriation for beneficial use.²⁷⁵ Beneficial use shall be the basis the measure and the limit of the right to the use of water.²⁷⁶ The Constitution also states that all appeals to the district court from a decision of any state executive officer or body in matters relating to water rights will be tried de novo.²⁷⁷

2. General Provisions

The Constitution does not mention groundwater, but groundwater was made subject to the prior appropriation doctrine when the legislature passed a comprehensive groundwater statute in 1978. All existing water rights based upon application to beneficial use were recognized and the law was not intended to impair these rights or disturb their priority.²⁷⁸ Any person claiming to have a vested water right from any underground source by application of waters to a beneficial use may make and file with the state engineer a declaration setting forth the relevant information, and this verified declaration is prima facie evidence of the truth of its contents.²⁷⁹

Prior Appropriation and Permits

New Mexico law provides that the water of underground streams, channels, artesian basins, reservoirs or lakes, having reasonably ascertainable boundaries, are declared to be public waters and subject to appropriation for beneficial use.²⁸⁰ The state engineer declares which underground sources are reasonably ascertainable.²⁸¹ Once declared, these sources become available for appropriation, and withdrawal requires permits issued by the state engineer. No permit and license to appropriate underground waters for in-state use is required except in basins declared by the state engineer to have reasonable ascertainable boundaries.²⁸² Most, but not all groundwater is located in designated basins, and basins are designated by the State Engineer in Special Orders.²⁸³ A permit is required to drill a well, and a permit is also needed to use the water. There are two major exemptions from the permitting process they are: minimal domestic uses and wells deeper than 2,500 feet. Although not exemptions, replacement wells and supplemental wells also have less stringent requirements.²⁸⁴

A person desiring to use public waters for irrigation of noncommercial trees, for use on a lawn or garden not to exceed one acre or for household or other domestic use needs to apply to the state engineer.²⁸⁵ Upon this filing, the state engineer must issue a permit to use the water with the only condition that the user must comply with all applicable municipal ordinances.²⁸⁶ A person desiring to use public waters for watering livestock must also apply to the state engineer, but the applicant must include proof that the applicant is legally entitled to place livestock on the state or federal land where the water is to be used, has been granted access to the drilling site, and has permission to occupy the portion of the state or federal land as is necessary to drill and operate the well.²⁸⁷ Also, the state engineer is required to issue a permit if a person wants less than three acre-feet of water not to exceed one year for either prospecting, mining, construction of public works, highways and roads or drilling operations designed to discover or develop the mineral resources of the state, if the state engineer finds the use will not permanently impair existing rights.²⁸⁸

Extremely deep wells are also exempt from requiring water permits. No past or future order of the state engineer, declaring an underground water basin having reasonably ascertainable boundaries shall include water in an aquifer, the top of which is 2,500 feet or more below the surface at a location at which a well is drilled and which the aquifer contains non-potable water.²⁸⁹ Any person wanting to drill wells in these areas must only file a notice of intention with the state engineer and publish, in a newspaper of general circulation, the details of the wells including the depth and purpose of the well.²⁹⁰ No permit is required. The engineer may require pertinent data and require the well to be metered and the volume reported.²⁹¹ Any person who believes his existing water rights are injured from this non-potable water use may file in the district court for damages or injunctive relief.²⁹²

Groundwater and Artesian Waters

New Mexico distinguishes artesian waters from groundwater, and each has its own use requirements. To appropriate groundwater, an appropriator applies to the state engineer. After receiving an application, the state engineer publishes a notice that the application has been filed in a local newspaper in each county where the water will be or has been put to beneficial use or where other water rights may be affected; any person objecting that the application will impair the objector's water right has standing to file objections or protests. Any entity objecting that the application will be contrary to the conservation of water within the state or detrimental to the public welfare of the state and showing that the objector will be substantially and specifically affected by the application also has standing to file objections or protests.²⁹³ If there are no objections, the state engineer will issue a permit if he finds that there is unappropriated water in the source. He must also find the appropriation would not impair existing water rights from the source, find that it is not contrary to conservation of water within the state, and is not detrimental to the public welfare of the state.²⁹⁴

If the owner of a water right or water permit fails to appropriate the water and apply them to use for which the right or permit allows within four years, the state engineer must give the appropriator notice.²⁹⁵ If one year after the notice, the appropriator still has not used the water, the right will be forfeited and the water unused will revert to the public.²⁹⁶ The state engineer may grant an extension if there is a proper showing of reasonable cause for the delay or for non-use or if the non-use is in the public interest.²⁹⁷

A user may receive a certified decree after adjudication. Either the state engineer or a private party may bring a suit for determination of a right to use the waters of any stream system which includes groundwater basins. All who claim to use the water of the system, as far as they can be ascertained, with reasonable diligence, are made parties.²⁹⁸ After the adjudication, a decree is issued that includes the priority, amount, purpose, periods and place of use, and if applicable the land to which the right will be appurtenant for each water right adjudged to each party.²⁹⁹

Artesian waters are defined to be an artificial well which derives its water supply from any artesian stratum or basin.³⁰⁰ All artesian waters which have been declared to be public waters shall be under the supervision and control of the state engineer, unless artesian conservancy districts have been organized pursuant to New Mexico laws, then districts shall have concurrent power and authority with the state engineer to enforce the regulatory provisions.³⁰¹ The owner of the lands upon which any artesian well is situated shall make application to the state engineer for a permit to drill, repair, plug or abandon an artesian well, setting forth the plan of operations to be performed before work can proceed.³⁰² Artesian wells have different construction standards than non-artesian wells.³⁰³

3. Other Provisions

Mine Dewatering

New Mexico passed the Mine Dewatering Act to promote maximum economic development of mineral resources while ensuring that development does not impair existing water rights.³⁰⁴ The legislature recognized that administering water rights under prior appropriation might cause severe economic hardship when applied to mineral production. Under this act, a person needs a permit to engage in mine dewatering issued by the state engineer.³⁰⁵ If the engineer finds there is not impairment to existing rights, he will issue the permit.³⁰⁶ If the state engineer finds the mine dewatering would impair existing rights, he will notify the applicant, and the applicant may appeal or file a plan of replacement. The legislature allows replacement water to be used to counteract any impairment to existing water rights due to mine dewatering.³⁰⁷ Application for replacement of water shall be made to the state engineer and shall be at the sole expense of the applicant.³⁰⁸

Export of Water

Anyone wishing to withdraw water from any surface or underground water source in the state and transport it for use outside the state must apply to the state engineer for a permit.³⁰⁹ The application goes through the same process as other permits except the state engineer shall also consider the following factors:

1. Supply of water available to the state of New Mexico;
2. Water demands of the state of New Mexico;
3. Whether there are water shortages within the state of New Mexico;
4. Whether the water that is the subject of the application could be feasibly transported to alleviate water shortages in the state;
5. Supply and sources available to the applicant in the state where the applicant intends to use the water; and
6. Demands placed on the applicant's supply in the state where the applicant intends to use the water.³¹⁰

The state engineer may condition the permit to insure that the use of water is subject to the same regulations and restriction that may be imposed on use in the state.³¹¹ Also, the applicant must designate an agent in New Mexico for reception of service of process and other legal notices.³¹²

Groundwater Storage

In 1999, the state legislature passed the Ground Water Storage and Recovery Act to save money through groundwater recharge, storage, and recovery; reduce the rate of decline in aquifers; promote conservation; serve the public welfare; and lead to more

effective use of the state's water resources.³¹³ A permit is required to operate the project, and only governmental entities such as Indian nations, tribes, or pueblos, or state political subdivisions, including municipalities, counties, acequias, irrigation districts, or conservancy districts may apply for a permit.³¹⁴ When the state engineer receives a permit application, notice of the application is published in a newspaper of general circulation.³¹⁵ Objectors only have standing if the application will impair the objector's water right, will be contrary to the conservation of water, or will be detrimental to the public welfare. Objectors must also show that they will be substantially and specifically affected by the granting of the application.³¹⁶ If the state engineer receives a valid objection, he will schedule a hearing on the application. The state engineer will only issue a permit if the applicant proved that the following is applicable:

1. The applicant has the technical and financial capability to construct and operate the project;
2. The project is hydrologically feasible;
3. The project will not impair existing water rights or the state's interstate obligations;
4. The project will not be contrary to the conservation of water within the state;
5. The project will not be detrimental to the public welfare of the state;
6. The applicant has completed applications for all permits required by state and federal law;
7. The applicant has a valid water right; and
8. The project will not cause harm to users of land and water within the area of hydrologic effect.³¹⁷

Water added to an aquifer to be stored for subsequent diversion and use pursuant to a project permit is not public water and is not subject to forfeiture. A permittee may only use recovered water for the same purpose for which the water was originally diverted unless the change is approved by the state engineer.³¹⁸

OREGON

Oregon requires a permit for both surface water and groundwater appropriations. Permits require beneficial use and may impose conditions to prevent undue interference with existing wells. Where surface and groundwater sources are hydraulically connected, detailed rules apply that govern the issuance of permits and groundwater and surface waters are managed conjunctively to protect water resources, water rights, and the public interest. State law provides for the designation of special areas such as critical groundwater management areas, where there are overdrafts, contamination, and other problems; these areas may be closed to further appropriation and existing rights may be limited in terms of withdrawals. The state is also experimenting with water banking and underground storage in areas where groundwater rights exceed the capacity of aquifers to satisfy them. In the Butter Creek area of Eastern Oregon, for example, a plan has been developed to inject flood waters in the creek into the aquifer for use during dry periods, but the task of ensuring injected water does not contaminate or degrade the aquifer is complex.

1. Constitutional Provisions

Oregon's Constitution has no provision governing either surface water or groundwater.

2. General Provisions

Waters of the state are defined by statute as any surface or groundwater located within or without the state over which the state has sole or concurrent jurisdiction. Groundwater means any water, except capillary moisture, beneath the land surface or beneath the bed of any stream, lake, reservoir or other body of surface water in which the water stands, flows, percolates, or otherwise moves.³¹⁹ A permit is required in Oregon to use any groundwater or construct any well.³²⁰

The Water Resource Commission establishes policies for the operation of the Water Resources Department³²¹ and adopts and enforces rules to protect groundwater and govern the construction and maintenance of wells.³²² In addition, the commission shall perform any other duty vested in it by law.³²³ The Water Resource Director administers and enforces water resources laws.³²⁴

Beneficial use without waste is the basis, measure and extent of the right to appropriate groundwater.³²⁵ Whenever the owner of a water right ceases or fails to use all or part of the right for five successive years, the failure shall create a rebuttable presumption of forfeiture.³²⁶ The statute lists fourteen exceptions to the forfeiture rule.³²⁷

All claims to rights to appropriate groundwater must be made a matter of public record.³²⁸ State law seeks to ensure adequate and safe supplies of groundwater for human consumption while conserving maximum supplies of groundwater for agricultural,

commercial, industrial, thermal, recreational, and other beneficial uses.³²⁹ Depletion of groundwater supplies below economic levels, impairment of natural quality of groundwater by pollution and wasteful practices in connection with groundwater is to be prevented or controlled within practicable limits.³³⁰

The Water Resource Commission has the power to classify water for the highest and best use, and may restrict uses and quantities of use.³³¹ Subject to existing rights, all waters within the state may be appropriated for beneficial use.³³² An example of a classification is a statute regulating Wild and Scenic Rivers. Recreation and preservation of wildlife and fish are declared the best beneficial use in these areas. Use of groundwater in these areas is not affected unless it is proven that the use of the groundwater would measurably reduce the surface water flows necessary for fish and wildlife.³³³

Oregon law also provides a number of unique definitions concerning groundwater. For example, the definition of *well* does not include a hole drilled for the purpose of either prospecting, exploration or production of oil or gas, prospecting or exploration for geothermal resources, production of geothermal resources derived from a depth of greater than 2,000 feet or exploration for minerals.³³⁴ The Administrative Code includes definitions to be used for groundwater and includes definitions for *economic pumping levels*, *declined excessively*, and *substantial or undue influence*.³³⁵

Certain water uses are exempt from the permitting process, such as watering stock, domestic use of less than 15,000 gallons/day, or industrial or commercial uses of less than 5,000 gallons/day. Exempt uses are also limited to the amount necessary for beneficial use. The Water Resources Department may regulate exempted uses by using priority dates if necessary. After declaration of a groundwater management area, a new user must apply for a groundwater permit even for normally exempted uses of water.³³⁶

Groundwater Permitting

Applications for permits to appropriate water are made to the Water Resources Department which must determine if the proposed use will ensure the preservation of the public welfare, safety, and health. The department will presume that the use will ensure the public welfare if the proposed use is allowed in the applicable basin program or given a preference, if water is available, if the proposed use will not injure other water rights and if the proposed use complies with rules of the Water Resources Commission.³³⁷ This rebuttable presumption may be overcome by a preponderance of evidence. After the Department reviews the application, it will issue a proposed final order.³³⁸ Any person may protest against a proposed final order.³³⁹ After the period for receiving protests, the Water Resources Director will either issue a final order or schedule a contested case hearing. A contested case hearing will be held if a protest has been submitted and there are significant disputes or if the applicant requests a contested case hearing.³⁴⁰ If the director determines the proposed use would ensure the preservation of the public welfare, safety and health, she issues a final order approving the application or modifying the

proposed final order.³⁴¹ A final order may include provisions or restrictions concerning the use, control and management of the water to be appropriated for the project.³⁴² The construction of a well under a permit must be prosecuted with reasonable diligence and be completed within a reasonable time fixed in the permit by the Water Resources Department, not to exceed five years after the date of approval of the application.³⁴³

Oregon law explains in great detail how to determine if there is injury to other water users or waste. When an application discloses the probability of wasteful use or undue interference with existing wells or that any proposed use or well will impair or substantially interfere with existing rights to appropriate surface water by others, or that any proposed use or well will impair or substantially interfere with existing rights to appropriate groundwater for the beneficial use of the water for its thermal characteristics, the Water Resources Department may impose conditions or limitations in the permit or request the Water Resources Commission to initiate a rulemaking proceeding to declare the affected area a critical groundwater area.³⁴⁴

All wells that produce water from an aquifer that is determined to be hydraulically connected to a surface water source shall be assumed to have the potential to cause substantial interference with the surface water source if the existing or proposed groundwater appropriation is within one of the following categories:

1. The point of appropriation is less than one-fourth mile from the surface water source;
2. The rate of appropriation is greater than five cubic feet per second, if the point of appropriation is less than one mile from the surface water source;
3. The rate of appropriation is greater than one percent of the pertinent adopted minimum perennial streamflow or instream water right with a senior priority date, if one is applicable, or of the discharge that is equaled or exceeded 80 percent of time, as determined or estimated by the Department, and if the point of appropriation is less than one mile from the surface water source; or
4. The groundwater appropriation, if continued for a period of 30 days, would result in stream depletion greater than 25 percent of the rate of appropriation, if the point of appropriation is less than one mile from the surface water source.³⁴⁵

All wells that produce water from an aquifer that is not hydraulically connected to a surface water source shall be assumed not to interfere with the surface water source.³⁴⁶

Basin Programs

The Commission also establishes basin programs. Basin programs are administrative rules which establish water management policies and objectives and which govern the appropriation and use of the surface and groundwater within each of the respective basins. The rules classify surface and groundwaters according to the uses

which are permitted, may establish preferences among uses, may withdraw surface and groundwater from further appropriation, may reserve waters for specified future uses, and may establish minimum perennial streamflows.³⁴⁷ Currently, seventeen basins have these plans.

The regulation of groundwater changes if the area is designated as critical. The Water Resources Commission designates an area as a critical groundwater area when the following occurs:

1. Groundwater levels in the area are declining or have declined excessively;
2. The Department finds substantial interference between wells or appropriators;
3. The available groundwater supply in the area in question is being or is about to be overdrawn;
4. The purity of the groundwater in the area in question has been or reasonably may be expected to become polluted to an extent contrary to the public welfare, health and safety; or
5. Groundwater temperatures in the area in question are expected to be, are being, or have been substantially altered.³⁴⁸

Rules designating a critical groundwater area must define the boundaries of the area, include a provision requiring a periodic review of conditions and occur no less frequently than every ten years.³⁴⁹ The rule may also contain corrective provisions such as:

1. Closing the area to any further appropriation of groundwater;
2. Determining the permissible total withdrawal of groundwater in the critical area each day, month or year;
3. Discarding any application for a water right permit for the use of water in the area that is pending at the time the commission initiates the rulemaking process or that is received during the rulemaking process;
4. Making additional requirements as are necessary to protect the public welfare, health and safety;
5. Closing all or part of the critical groundwater area to further appropriation of groundwater for its thermal characteristics; or
6. Determining the permissible change in thermal characteristics of groundwater in all or part of the critical groundwater area each day, month or year.³⁵⁰

Any time after the commission adopts a rule for a critical groundwater area, it may initiate a contested case proceeding to further limit the use of groundwater in the area if the commission believes that any of the qualifying criteria listed above exists.

The commission may also encourage and recognize voluntary agreement in critical areas among groundwater users from the same groundwater reservoir.³⁵¹ When the commission finds that this agreement is consistent with the intent, purposes and requirements of the law, particularly in control areas, the commission will approve the

agreement. The agreement will control in lieu of a formal order or rule of the commission. The agreement may be terminated by lapse of time as provided in the agreement, by consent of the parties to the agreement or by order of the commission if it finds that the agreement is not being substantially complied with by the parties or that conditions have changed that have made the agreement a detriment to the public welfare, safety or health or contrary to the intent purposes and requirements for which it was established.³⁵²

3. Other Provisions

Exporting Water from a Basin

Before approving an out-of-basin application, the commission is to reserve an amount of water adequate for future needs in the basin of origin, including an amount sufficient to protect public uses, and subordinate the out-of-basin use to that reservation.³⁵³ No water located or arising from within a basin is to be diverted or impounded or in any manner appropriated for diversion or use beyond the boundaries of that basin except upon the express consent of the legislature, which may also attach conditions, exceptions, reservations, restrictions and provisions necessary to ensure the protection of the natural resources of the basin and the health and welfare of the present and future inhabitants of the basin within which the water arises or is located.³⁵⁴

Groundwater Storage

Oregon has two types of groundwater storage, aquifer recharge and aquifer storage and recovery (ASR). Both are administered by the Water Resource Department, and both have been determined to be beneficial uses. Aquifer storage and recovery is the storage of water in a suitable aquifer for later recovery from a separate source that meets drinking water standards; the restoration of an aquifer may not be one of the primary purposes of storing the water.³⁵⁵ The Water Resources Commission has standards for aquifer recharge that an applicant must meet before the department allows someone to appropriate water for the purpose of recharging groundwater.³⁵⁶ The recharge application must follow the same requirements as any permit to appropriate water.³⁵⁷ Another permit called a secondary permit is required to beneficially use artificially stored water in groundwater basins.³⁵⁸ This application must include the artificially recharged groundwater basin or reservoir as a supply of water and the written consent of the holder of the recharge permit or certificate to appropriate the artificially recharged water.³⁵⁹ Before issuing a permit for recharging groundwater the department must find that the recharge project would not impair or be detrimental to the public interest.³⁶⁰ The recharge permit will only be allowed if the supplying stream has a minimum perennial stream flow established for the protection of aquatic life. The Water Resources Commission may also establish rules to allow a limited license to use or store groundwater if authorized and in accordance with a contract with a local state or federal government.³⁶¹

In 1995, Oregon enacted an aquifer storage and recovery statute (ASR). Under ASR, only one permit is required to divert, store, and recover water, provided the water is applied to its originally intended beneficial use. The Department issues limited licenses to store and use water injected into an underground basin. To obtain a limited license, applicants must submit detailed information about well construction, water quality, storage time and recovery schedule, as well as hydrologic conditions.³⁶² Aquifer storage and recovery under a limited license may be conditioned by the department to protect existing groundwater rights that rely upon the receiving aquifer or the injection source water. The department may revoke or modify the limited license if that use causes injury to any other water right or to a minimum perennial streamflow. The Water Resources Director may issue a limited license for aquifer storage and recovery purposes for a term of not more than five years. Only after completion of a test program under a limited license may the applicant apply for a permanent aquifer storage and recovery permit. The Water Resources Department has passed administrative rules that govern aquifer storage and recovery and aquifer recharge.³⁶³

UTAH

Early in Utah's history, groundwater was classified into three categories: water flowing in definitive underground streams, the underflow of streams, and percolating water which included all groundwater not included in the other two categories. Underground streams were open to appropriation by diversion and beneficial use. Underflow water was considered part of the surface stream. Percolating groundwater was considered part of the soil and owned by the landowner under correlative rights. In 1935, the Utah Supreme Court abandoned the legal fiction that groundwater and surface water were separate resources, and held that all groundwater should be treated as an integrated resource with surface water and subject to appropriation under the permit system. Utah now uses prior appropriation for both surface water and groundwater.

1. Constitutional Provisions

The only provision in the Utah Constitution regarding water states that municipalities are forbidden from selling or disposing of waterworks or water rights.³⁶⁴

2. General Provisions

All waters in the state, whether above or below the ground, are property of the public,³⁶⁵ and beneficial use is the basis, limit and measure of all rights to the use of water in the state.³⁶⁶ Surface water and groundwater appropriation are treated identically under Utah law. The appropriation must be for some useful and beneficial purpose. Prior appropriation gives the better right, but domestic purposes shall have preference over all other uses, and agricultural use shall have preference over all uses except domestic.³⁶⁷ The state engineer may issue a permit for a limited amount of time.³⁶⁸ At the expiration date the water reverts back to the public and again is subject to appropriation.³⁶⁹ No right to use water can be acquired by adverse use or adverse possession.

An application to the state engineer is necessary before commencing any construction.³⁷⁰ Once the state engineer receives the application, he publishes it in a newspaper of general circulation in the county in which the source of supply is located and where the water is to be used.³⁷¹ Any interested person may file a protest with the state engineer and the engineer shall consider the protest and either approve or reject the application.³⁷² The state engineer shall approve the application if:

1. There is unappropriated water in the proposed source;
2. The proposed use will not impair existing rights or interfere with a more beneficial use of the water;

3. The proposed plan is physically and economically feasible and would not prove detrimental to the public welfare;
4. The applicant has the financial ability to complete the proposed works; and
5. The application was filed in good faith and not for the purposes of speculation or monopoly.³⁷³

If the state engineer accepts the permit, he will also decide the time limit in which the construction work must be completed and the water applied to beneficial use.³⁷⁴ The construction of the works and the application of water to beneficial use must be diligently prosecuted to completion within the time period set by the state engineer.³⁷⁵ Extensions of time up to fifty years may be granted on proper showing of diligence or reasonable cause for the delay.³⁷⁶ Public agencies can get extensions beyond fifty years if they can demonstrate the water will be needed to meet the reasonable future demand of the public.³⁷⁷ Any other applicant or water user may file a request for agency action with the state engineer alleging that such work is not being diligently prosecuted to completion.³⁷⁸

Groundwater Management Plans

The state engineer also issues groundwater management plans for geographic regions where he suspects the safe yield of the aquifer may soon be reached. The engineer uses these plans to establish area specific guidelines for use when reviewing applications and managing groundwater. The purposes of these plans are specific to the area but may include promoting efficient use, maximizing the benefits, and protecting existing rights. The state engineer uses his statutory authority to administer the measurement, appropriation and distribution of the groundwater of the state to implement these plans. The state engineer studies each area to find the annual precipitation, recharge rate and discharge rate. He also estimates future needs and demands. In these management plans, he may limit the amount of new appropriations, set total maximum annual withdrawals, or even close the area to any new appropriations.³⁷⁹ His decision rests upon his belief of whether or not there is unappropriated water in the area. Some of the plans assert that groundwater and surface water systems need to be jointly managed as one system because the groundwater system is hydrologically connected to some surface sources.³⁸⁰ If surface flows are not sufficient to supply all rights, both surface and groundwater rights should be distributed according to priority. Currently there are twelve management plans.

3. Other Provisions

Interstate Transfer

Utah allows transfers of water outside the state in certain circumstances. An appropriator must follow the same steps as any appropriator and fill out an application. The application requires the same information as an in-state use, but also requires an

agent in the state of Utah designated to be served with legal notices. The state engineer will publish a notice of the application. He will then investigate the application and approve the application if he finds that the proposed appropriation meets the same requirements as in-state appropriations. In addition, the state engineer must find that the appropriation is consistent with Utah's reasonable water conservation policies or objectives, is not contrary to the public welfare, and does not impair the ability of the state of Utah to comply with its obligation under any interstate compact or judicial decree which apportions water among Utah and other states.³⁸¹ The engineer must also find that the water can be transported, measured, delivered, and beneficially used in the recipient state.

Groundwater Recharge

Utah implemented the Groundwater Recharge and Recovery Act in 1991. Under this Act, a person needs a permit to both recharge and recover water from a groundwater basin. A person who wants to recharge water must have a valid water right for the water proposed for storage. A person who holds a recovery permit may only use or exchange the recovered water for the same use as was permitted before the water was stored, unless a change or exchange application is filed.³⁸² The state engineer will issue a recharge permit if the applicant has the technical and financial capability to construct and operate the project. The project must also be hydrologically feasible, not cause unreasonable harm to land, not impair any existing water rights within the area, and not adversely affect the water quality of the aquifer.³⁸³ The state engineer may also attach any conditions to the permit he determines appropriate. The state engineer will issue the recovery permit if the proposed recovery will not impair any existing rights and the recovery point of diversion is located within the area of hydrologic impact of the project.³⁸⁴ The applicant of the recovery permit also needs a valid agreement with the owner of the recharge permit, if he is not the owner. Again, the state engineer may attach any conditions he determines to be appropriate. Any person holding either a recharge or recovery permit must monitor the operation of the project and its impact on the land, the aquifer, and water rights within the project's area.³⁸⁵ He must then file reports with the state engineer regarding the quantity of water stored and recovered and the water quality of the recharged water, receiving aquifer and recovered water.³⁸⁶ As of 2002, one project had been undertaken by the Jordan Valley Water Conservancy District.³⁸⁷ The state engineer approved the application subject to conditions that limit the district's groundwater recovery to approximately 80% of the water it injected into the basin to insure that other groundwater rights are not impaired by the later withdrawal of the stored water.³⁸⁸

WASHINGTON

Washington passed a comprehensive water code for surface water rights in 1917. The groundwater code was enacted in 1945 to extend surface water statutes to the appropriation and beneficial use of groundwater. The groundwater code is supplemental to the surface water code.³⁸⁹ The Department of Ecology administers both surface and groundwater rights. Both the surface water code and the groundwater code are premised on the doctrine of prior appropriation, which applies when an applicant seeks to obtain a water right in this state.³⁹⁰ Before 1945, groundwater was allocated under the American rule of reasonable use. The current statutes state no rights to use either surface or groundwater may be acquired by prescription or adverse use.³⁹¹ Under the prior appropriation doctrine, a water right may be acquired where available public water is appropriated for beneficial use, subject to existing rights.³⁹² The same is true of groundwater. "Subject to existing rights, all natural groundwaters of the state . . . are hereby declared to be public groundwaters and to belong to the public and to be subject to appropriation for beneficial use under the terms of this chapter and not otherwise."³⁹³ The groundwater code provides that groundwater applications shall be made in the same way as provided in the surface water code.³⁹⁴ A permit system is administered for both surface water and groundwater. The priority date of the right relates back to the date of filing of the original permit application with the department.³⁹⁵

1. Constitutional Provisions.

Washington's Constitution has one provision which establishes water policy: "The use of the waters of this state for irrigation, mining, and manufacturing purposes shall be deemed a public use."³⁹⁶

2. General Provisions

Groundwater "means all waters that exist beneath the land surface or beneath the bed of any stream, lake or reservoir or other body of surface water within the boundaries of this state, whatever may be the geological formation or structure in which such water stands or flows, percolates or otherwise moves."³⁹⁷ Washington differentiates between natural groundwater and artificial groundwater. Natural groundwater is defined as water that exists in underground storage due wholly to natural processes.³⁹⁸ Artificially stored groundwater is water made available in underground storage artificially, either intentionally or incidentally from irrigation and that otherwise would have been dissipated by natural processes.³⁹⁹ Only natural groundwaters and artificial groundwaters that have been abandoned or forfeited are public groundwaters and subject to appropriation.⁴⁰⁰ A person who either abandons or voluntarily fails to beneficially use all or any of part of their water right to withdraw for any period of five successive years shall relinquish such right of portion there of and the right will revert to the state and the water will become available for appropriation.⁴⁰¹

The Water Resources Act of 1971⁴⁰² set out general policy statements regarding water use in both surface and groundwater areas. It required the department to create a comprehensive state water resources program that would provide a process for making decisions on future water resource allocation and use.⁴⁰³ It listed beneficial uses and recognized allocation will be based generally on the securing of the maximum net benefits for the people of the state. Also, quality of the natural environment will be protected and where possible enhanced, full recognition shall be given in the administration of water allocation and use programs to the natural interrelationships of surface and groundwaters, and expressions of the public interest will be sought at all stages of water planning and allocation discussions.⁴⁰⁴ Under this Act, the department established Watershed Resource Inventory Areas (WRIA) to develop a water program in regional segments so that immediate attention may be given to waters of a region of the state or to specific critical problems of water allocation and use.⁴⁰⁵ The state is divided into 62 WRIsAs.⁴⁰⁶ As sufficient data is obtained for each WRIA, the department formulates a water resource planning and management program for each area, and by regulation establishes policies for the beneficial use of public waters.⁴⁰⁷

The 1979 Family Farm Water Act reaffirmed that water should be managed to maximize the benefit to the greatest possible number of its citizens, but added the maximum benefit to the greatest number of citizens through the use of water for the irrigation of agricultural lands will result from providing for the use of such water on family farms.⁴⁰⁸

The Permitting Process

Since 1945, no withdrawal of public groundwater has been permitted without a permit issued by the water resources department.⁴⁰⁹ Exceptions include the withdrawal of public groundwaters for stock-watering purposes, for the watering of a lawn or of a noncommercial garden not exceeding one-half acre in area, for single or group domestic uses in an amount not exceeding 5,000 gallons a day, or for an industrial purpose not exceeding 5,000 gallons a day and is equal in right to a permit right.

Under the surface water statute, each permit application must include the source of the water supply, the nature and amount of the proposed use, the time during which water will be required each year, the location and description of the proposed ditch, canal, or other work, the time within which the completion of the construction, and the time for the complete application of the water to the proposed use.⁴¹⁰ If for agricultural purposes, then the legal subdivision of the land, the acreage to be irrigated, and the amount of water in acre feet to be supplied per season are required.⁴¹¹ If for power purposes, then the nature of the means of which the power is to be developed, the head and amount of water to be utilized, and the uses to which the power is to be applied is required.⁴¹² Other requirements are necessary depending upon the usage.

In addition to the requirements in the surface water statute, the groundwater statute further requires the name and post office address of the owner of the land on which the wells or works will be located, the location of the proposed wells or other works for the proposed withdrawal, the groundwater area, sub-area, or zone from which the withdrawal is proposed provided the area has been designated, the amount of water proposed to be withdrawn, in gallons a minute and in acre feet a year or millions of gallons a year, and the depth and type of construction proposed for the wells.⁴¹³

Upon receipt of an application, the department instructs the applicant to publish notice in a form prescribed by the department in a newspaper of general circulation published once a week for two weeks in the counties in which the storage, diversion, and use is to be made.⁴¹⁴ The department sends notice of the application to the director of fish and wildlife.⁴¹⁵ After receipt of the application, the department has the duty to investigate all facts relevant and material to the application and determine if there is unappropriated water. It also determines what beneficial uses can be applied for in that area.⁴¹⁶ The department makes written findings of fact concerning the application, and if it finds that there is water available for appropriation for beneficial use, and the proposed appropriation will not impair existing rights or be detrimental to the public welfare, it issues a permit which states the amount of water allowed and the beneficial use to which it may be applied.⁴¹⁷ The right becomes appurtenant to the land if the use is for irrigation purposes.⁴¹⁸ An application may be approved for an amount less than applied for if there is a substantial reason, and the amount of the appropriation is limited to the amount of water that can be applied to beneficial use for the purposes listed in the application.⁴¹⁹

No permit is to be granted for the withdrawal of groundwater beyond the capacity of the underground bed to yield water within a reasonable or feasible reduction of pressure.⁴²⁰ The department will also determine whether granting the permit will injure or damage any vested right under prior permits.⁴²¹ A prior appropriator will enjoy the right to have any withdrawals by a subsequent appropriator of groundwater limited to an amount that will maintain and provide a safe sustaining yield in the amount of the prior appropriation.⁴²²

Designated Areas

The department has authority to limit withdrawals of appropriators to enforce the maintenance of a safe sustaining yield.⁴²³ For this purpose, the department may designate groundwater areas or sub-areas, and designate separate depth zones in each area to the end that the withdrawals may be administratively controlled to prevent overdraft.⁴²⁴ Each area should be designated as to enclose a single and distinct body of public groundwater. These areas may be proposed by the department or by petition of at least fifty or one-fourth, whichever is less, of the users of groundwater in a proposed area. The criteria used to guide the department on what areas to designate are:

1. Aquifer systems that are declining due to restricted recharge or over-utilization;

2. Aquifer systems in which over-appropriation may have occurred and adjudication of water rights has not yet been completed;
3. Aquifer systems currently being considered for water supply reservation for future beneficial uses;
4. Aquifers identified as the primary source of supply for public water supply systems;
5. Aquifers designated as a sole source aquifer by the federal environmental protection agency; and
6. Geographical areas where land use may result in contamination or degradation of the groundwater quality.⁴²⁵

To designate an area, the department must publish notice which describes the area boundaries, the purpose of the designation, and where to object.⁴²⁶ After hearing any objections, the department will make findings and if it approves the designation, it will enter a written order designating the area. Within 90 days of a designation, any person claiming to own artificially stored groundwater must file a certified declaration describing the operation and the water claimed.⁴²⁷

After an area is designated, the department or holders of valid rights may request a hearing to determine whether the water supplies in the area are adequate for the current needs of all holders.⁴²⁸ If such a hearing finds that the total supply is inadequate for the current needs of all rights, the department will order the aggregate withdrawal from such area decreased so that withdrawals will not exceed the available supply.⁴²⁹ The decreases will conform to the priority of the existing rights. But if there is mutual agreement between right holders and the department, the ordered decreases may be accomplished by the waiving of all or part of a senior right in favor of a junior right. This waiving of a right will not modify the relative priorities of such right as recorded in the department.⁴³⁰ The department may appoint groundwater supervisors for each designated groundwater area to supervise the withdrawal of groundwater.⁴³¹

After an area is designated, the department creates a groundwater management program for each area. The programs must include the following:

1. A description of the specific groundwater area or sub-areas, or separate depth zones within any such area or sub-area, and the relationship of this zone or area to the land use management responsibilities of county government.
2. A management program based on long-term monitoring and resource management objectives for the area or sub-area.
3. Identification of water resources and the allocation of the resources to meet state and local needs.
4. Projection of water supply needs for existing and future identified user groups and beneficial uses.
5. Identification of water resource management policies and/or practices that may impact the recharge of the designated area or policies that may affect the safe yield and quantity of water available for future appropriation.

6. Identification of land use and other activities that may impact the quality and efficient use of the groundwater, including domestic, industrial, solid, and other waste disposal, underground storage facilities, or storm water management practices.
7. The design of the program necessary to manage the resource to assure long-term benefits to the citizens of the state.
8. Identification of water quality objectives for the aquifer system which recognize existing and future uses of the aquifer and that are in accordance with Department of Ecology and Department of Social and Health Services drinking and surface water quality standards.
9. Long-term policies and construction practices necessary to protect existing water rights and subsequent facilities installed in accordance with the groundwater area or sub-area management programs and/or other water right procedures.
10. Annual withdrawal rates and safe yield guidelines which are directed by the long-term management programs that recognize annual variations in aquifer recharge.
11. A description of conditions and potential conflicts and identification of a program to resolve conflicts with existing water rights.
12. Alternative management programs to meet future needs and existing conditions, including water conservation plans.
13. A process for the periodic review of the groundwater management program and monitoring of the implementation of the program.⁴³²

After completing the management plan, the department holds a public hearing to take public testimony on the proposed program.⁴³³ The department and affected local governments will then prepare findings which either accept the program or identify revisions and then adopt regulations, ordinances, or programs for implementing those provisions of the management program which are within their respective jurisdictional authorities.⁴³⁴ These programs do not affect any water right existing as of May 21, 1985.⁴³⁵

After receiving a permit, actual construction work must be commenced within a reasonable time and be prosecuted with diligence and completed within the time prescribed by the department.⁴³⁶ When fixing the time for both commencement and completion, the department will consider the cost and magnitude of the project and the engineering and physical features to be encountered, and then allow a reasonable time under the existing conditions.⁴³⁷ The department also must consider the public welfare and public interests affected. After an applicant shows to the department's satisfaction that the appropriation has been perfected, the department must issue a water right certificate.⁴³⁸ The showing must include the following information:

1. The location of each well.
2. The depth and diameter of each well.
3. The thickness in feet and the physical character of each bed, stratum or formation penetrated by each well.

4. The length and position, in feet below the land surface, and the commercial specifications of all casing.
5. The tested capacity of each well in gallons a minute as determined by measuring the discharge of the pump after continuous operation for at least four hours or in the case of a flowing well, by measuring the natural flow at the land surface.
6. For each non-flowing well, the depth to the static groundwater level as measured in feet below the land surface immediately before the well-capacity test, also the draw-down of the water level, in feet, at the end of said well capacity test.
7. For each flowing well, the shut-in pressure measured in feet above the land surface or in pounds per square inch at the land surface.
8. Any additional factual information as reasonably required by the department to establish compliance.⁴³⁹

3. Other Provisions

Out-of-State Use

No permit for the appropriation of water will be denied because any portion of the works or the use may be in another state or nation.⁴⁴⁰ The permit will be issued as in other cases provided that the department may in its discretion decline to issue a permit where the point of diversion described in the application is within the state of Washington, but the place of beneficial use is in some other state or nation, unless the laws of the other state or nation allow water to be lawfully diverted within that state or nation for beneficial use in Washington.⁴⁴¹

Underground Storage

Washington allows aquifer storage and recovery projects (ASR). An ASR project is a project "where the intent is to artificially store water in an underground geological formation through injection, surface spreading and infiltration, or other department-approved method, and to make subsequent use of the stored water."⁴⁴² A water user first needs a water right to a water source. Any water to be used as part of an ASR program must be obtained under a valid water right permit, certificate or registered water claim. In addition to the water right, a reservoir permit is also required. For an underground geological formation to qualify for a reservoir permit, it must meet standards for review and mitigation of adverse impacts identified for the following issues:

1. Aquifer vulnerability and hydraulic continuity;
2. Potential impairment of existing water rights;
3. Geotechnical impacts and aquifer boundaries and characteristics;
4. Chemical compatibility of surface waters and groundwaters;
5. Recharge and recovery treatment requirements;

6. System operation;
7. Water rights and ownership of water stored for recovery; and
8. Environmental impacts.

The project may also require a secondary permit. An application is required if the proposed use to apply the stored water is not the same beneficial use as the original water right.⁴⁴³ This permit will be treated the same as a change in place of use permit. The secondary application must refer to the reservoir as its source of water and show documentary evidence that an agreement has been entered into with the owners of the reservoir for a permanent and sufficient interest in the reservoir to impound enough water for the purposes set forth in the application.⁴⁴⁴

After receiving both the reservoir permit and the secondary permit, the applicant must then apply for an ASR project. This application goes into the same line as water right applications.⁴⁴⁵ An application for an ASR project must contain at a minimum the following data:

1. A description of the hydrogeologic system prepared by a hydrogeologist licensed in the State of Washington.
2. A project operation plan with a description of the pilot and operational phases of the ASR project prepared by an engineer or geologist licensed in the state of Washington.
3. A description of the legal framework.
4. An environmental assessment and analysis of any potential adverse conditions or potential impacts to the surrounding ecosystem that might result from the project, along with a plan to mitigate such conditions or impacts. The environmental assessment will establish whether a determination of non-significance or an environmental impact statement is required per the State Environmental Policy Act.
5. A project mitigation plan.
6. A project monitoring plan.⁴⁴⁶

Any application reviewed under the ASR Act will be considered by the department, the department of fish and wildlife, the department of health, and the appropriate Indian tribes, specifically to ensure that the following do not occur during ASR project injections or withdrawals:

1. Alteration of the normative hydrology which may result in adverse impacts to fish.
2. Detrimental changes in temperature, nutrient, heavy metals, hydrocarbon, or other deleterious material levels during critical spawning and rearing periods.
3. Disruption of natural downwelling or upwelling within stream during critical spawning and rearing periods.

4. Saturation of stream bank which could lead to erosion, bank failure, and excess sedimentation entering the stream which can alter stream chemistry, flow, and bed morphology.⁴⁴⁷

Once sufficient information is developed and provided to the department to verify the project is viable and the requirements have been met, the department will issue proper documentation for the reservoir and secondary permit, if any, with the priority date or dates based on the underlying source water right.⁴⁴⁸

WYOMING

Wyoming law historically gave the overlying landowner the right to capture and use the groundwater.⁴⁴⁹ In 1947, Wyoming passed its first groundwater statute, which established prior appropriation for groundwater and provided for a registration system, but no regulation of groundwater use was provided. In 1957, Wyoming rewrote the statutes and added a permit requirement.

1. Constitutional Provisions

Wyoming's Constitution states that "the water of all natural streams, springs, lakes or other collection of still water, within the boundaries of the state, are hereby declared to be the property of the state."⁴⁵⁰ It declares that prior appropriations for beneficial uses shall give the better right.⁴⁵¹ The constitution makes no specific mention of groundwater. Article 8, Section 2 of the Constitution establishes the State Board of Control composed of the state engineer and the superintendent from each of the four water divisions. The Board supervises the waters of the state and its appropriation, distribution and diversion.

2. General Provisions

Groundwater in Wyoming is defined as any water under the surface of the land or the bed of any stream, lake, reservoir, or other body of surface water, including water that has been exposed to the surface by an excavation.⁴⁵² The definition includes hot water and geothermal steam. Wyoming also distinguishes by-product water. It is water that has not been put to a prior beneficial use, but is a by-product of some non water-related economic activity and has been developed only as a result of such activity such as the dewatering of a mine. Any person who wants to appropriate this water must file a groundwater application with the state engineer.

Wyoming law provides that where aquifers are so interconnected as to in fact constitute one source of supply; or where ground and surface water are so interconnected as to in fact constitute one source of supply, priorities of rights to the use of all interconnected waters shall be correlated and such single schedule of priorities shall relate to the whole common water supply.⁴⁵³ Every groundwater permit includes an express condition that it may be subject to regulation and correlation with surface water rights if the ground and surface waters are determined to be interconnected.

Control Areas

The State created control areas in the 1957 statute. A control area is any groundwater district or sub-district that has been so designated by the Board of Control.⁴⁵⁴ The Board may designate a control area for one of the following reasons:

1. The use of groundwater is approaching the current recharge rate;
2. Groundwater levels are declining or have declined excessively;
3. Conflicts between users are occurring or are foreseeable;
4. The waste of water is occurring or may occur; or
5. Other conditions exist or may arise that require regulation for the protection of the public interest.⁴⁵⁵

Once an area is declared to be a control area, the Board of Control creates a control area advisory board. Also, all unadjudicated wells within the control area must be adjudicated. The Board then enters into its records the priorities to use water in the control area, the amount of appropriation of the parties claiming, the character and kind of use for which the appropriation is made, and the places or points of use.⁴⁵⁶ After the adjudication, the state engineer, either on his own motion or on the petition of 20 appropriators or one-tenth of the appropriators, may determine whether the under groundwater in the area is sufficient to meet all the needs of all appropriators in the area. If he finds, after receiving advice from the control area advisory board, that there is insufficient water he may adopt one or more of the following corrective controls:

1. Close the area to any further appropriation;
2. Determine the permissible withdrawal in the area for either each day, month or year and apportion the permissible total among appropriators holding valid rights in accordance with the relative priority dates;
3. Cease or reduce withdrawals from junior appropriators if they have a material effect on seniors;
4. Specify a system of rotation of use, or
5. Institute well spacing requirements.⁴⁵⁷

Another possibility for the appropriators in the control area is to voluntarily agree to a method of control of withdrawals, well spacing, apportionment, rotation or proration of the common supply of water.⁴⁵⁸ The state engineer by statute should encourage and approve agreements that are consistent with the intent of the legislature and are not detrimental to the public interest or the rights of others who are not parties to the agreement.⁴⁵⁹

The designation of an area as a control area provides a mechanism to slow development and ensure that senior rights are protected and not subject to interference.⁴⁶⁰ Designation also creates the control area advisory board which is comprised of five people living in the control area who advise and assist the state engineer in forming

policies concerning groundwater development. Finally, the designation provides a means to develop and implement regulations of groundwater.

Obtaining a Groundwater Right

The procedure for obtaining a right depends on where the well will be located and the declared use. The application process differs if the well is located in a control area. Domestic and stock water uses also have separate rules. Finally, appropriating by-product water also has specific distinctions. Any person who intends to acquire underground water must apply to the state engineer before performing any work in connection with the proposed appropriation.⁴⁶¹ No work shall begin before the applicant is issued a permit.⁴⁶² The application must include the name and address of the applicant, a detailed description of the proposed use, the location of the proposed well or means of obtaining the groundwater, the estimated depth of the proposed well, the quantity of water proposed to be withdrawn and beneficially utilized in gallons per minute and acre feet per calendar year, the location of the area of point of use, and other information the state engineer requires.⁴⁶³

A permit to appropriate groundwater includes an express condition that the right of the appropriator does not include the right to have the water level or artesian pressure at the appropriator's point of diversion maintained at any level or pressure higher than that which is required for maximum beneficial use.⁴⁶⁴ This condition implies that the senior appropriator's well must meet certain standards that achieve maximum beneficial use to be considered an adequate well. "Not only must the well be of an adequate depth, but it must also be adequately constructed and the pump must be of sufficient power to pump the groundwater."⁴⁶⁵ But, if an appropriator wishes to deepen his well without increasing the amount of the appropriation, he must file and obtain permission from the state engineer. The state engineer applies a no-injury standard.

There are also special rules for appropriations around Yellowstone National Park. Proposed appropriations within 15 miles of Yellowstone must additionally include a written report prepared by a qualified professional and containing information necessary to show the proposed development will not impair or produce an injurious effect on the hydrothermal features or hydrothermal system located within the boundaries of Yellowstone, but domestic and stock wells are exempt from the Yellowstone requirement.⁴⁶⁶

Groundwater Outside a Control Area

Applications for permits not in control areas are granted as a matter of course if the proposed use is beneficial and the state engineer finds the proposed means of diversion and construction are adequate.⁴⁶⁷ The state engineer may deny a permit if he finds it is not in the public's water interest.⁴⁶⁸ The state engineer has never denied a permit using public interest. To receive a permit, an applicant must apply to the state

engineer.⁴⁶⁹ The state engineer will then review the application, and if in proper form the application is approved and becomes a water permit.⁴⁷⁰ The permittee is required to submit written notification to the State Engineer's Office of the date that work on the well is to commence, the date it is completed and the date the water is beneficially used.⁴⁷¹ The permittee must also submit pertinent information about the well, such as water level and a driller's log.⁴⁷²

Groundwater in a Control Area

If the application is for a well in a control area, but not for domestic, stock water, or miscellaneous purposes that requires only a minimal quantity of water, the procedure is more complicated than for wells outside control areas. First, the state engineer will publish in a newspaper or general circulation a notice of the filing.⁴⁷³ Objections must be filed within ten days of the last notice on the ground there is not unappropriated water or the application is detrimental to the public interest.⁴⁷⁴ The engineer will have a hearing on the application if there are objections. If no objections, the state engineer may still have a hearing if he feels the application is detrimental to the public interest.⁴⁷⁵ The application shall be granted and the permit issued only if the state engineer finds, after receiving the advice of the control area advisory board, that there are unappropriated waters in the proposed source, that the proposed means of diversion or construction is adequate, that the location of the proposed well does not conflict with any well spacing or well distribution regulation, and that the proposed use would not be detrimental to the public interest.⁴⁷⁶

Once a permit is granted, the applicant has three years from the date of the approval to complete the construction and apply the water to beneficial use.⁴⁷⁷ After the completion of the well, the permit holder has 30 days to report to the state engineer.⁴⁷⁸ The water permit will then be adjudicated into a water right upon completion of all the terms of the permit and the filing of a map signed by a Wyoming licensed professional engineer or land surveyor, showing the location of the well and the point of use. The process of adjudication finalizes a water right and fixes the amount of the appropriation and the point or area of use. Upon receipt of the map, the state engineer's office will examine the well; if everything is in order and no protests are filed, a certificate of appropriation is issued by the Board of Control.⁴⁷⁹ If there are protests filed, a public hearing is held to allow all interested persons an opportunity to be heard. Following the hearing, the Board will issue an order either approving or rejecting the adjudication of the water right. The decision may be appealed to the courts.⁴⁸⁰

If a well is found to unreasonably interfere with an adequate well developed for domestic or stock uses, whether or not in a control area, the State Engineer may order the interfering appropriator to cease or reduce the withdrawal of groundwater from the well.⁴⁸¹ The interfering pumper can at his own expense furnish sufficient water at the former place of use to meet the need for domestic or stock use. In the case of two interfering domestic pumpers, the appropriation with the earliest priority shall have the better right. Any appropriator of either surface or groundwater may allege interference

with his water right by a junior right, but this is not applicable if the conflict is between two surface users.⁴⁸² The complainant must show by a preponderance of the evidence that the junior use injured the seniors.⁴⁸³

Domestic and Stock Use

Appropriations of groundwater for domestic or stock use have a preferred right over rights for all other uses, regardless of the priority dates.⁴⁸⁴ This preference does not include municipal use by any person of water appropriated by a municipality or company, or any instance where water is purchased or held out for sale.⁴⁸⁵ *Domestic use* is defined as household use and the water of lawns and gardens for noncommercial family use where the area to be irrigated does not exceed one acre, and where the yield or flow does not exceed .056 cubic feet per second or twenty-five gallons per minute. Domestic or stock wells require a permit before any construction is started. The Board may consider adjudication of the groundwater rights upon proof of beneficial use submitted by the appropriator.⁴⁸⁶ These rights are adjudicated after completion of the well like other groundwater rights except a filing of a map signed by a Wyoming licensed professional engineer is not required, unless deemed necessary and appropriate by the state engineer.⁴⁸⁷

By-Product Water

Any person intending to use by-product water must file an application with the state engineer.⁴⁸⁸ By-product water is filed for using groundwater procedures, but two conditions must be met. First, the water must be intercepted while it is readily identifiable and has not yet commingled with other water. Second, the developer-grantor of the by-product water must be the applicant or must consent and sign an agreement in the state engineer's office.⁴⁸⁹ The granting of this right does not imply that the developer must maintain or provide the water. Although the statutes say a permit is needed to appropriate the by-product water, there is no mention of needing a permit to create by-product water or dewater a mine. The State Engineer interprets the groundwater statute as to require a permit before dewatering a mine and has granted several hundred permits to dewater coal and uranium mines. This allows the state engineer to protect surrounding prior appropriators from injury from the lowering of the water table or a loss of pressure.⁴⁹⁰

Water for Temporary Purposes

The State Engineer promulgated rules regarding the temporary use of water. There are two ways to obtain the right to temporarily use water. An applicant can apply for a permit following the same procedures as filing for other uses of groundwater. The priority date is the date the state engineer accepted the application and the permit is only valid for a limited time after which it is automatically cancelled. The second option is to

acquire the temporary use of an already existing adjudicated or valid unadjudicated water right. The use cannot exceed two years. This option requires a written agreement between the temporary user of the water and the owner of the right be filed with the state engineer. The agreement must include the source of supply, priority, amount of appropriation, point of diversion of the original right and amount of water to be diverted by the temporary use.⁴⁹¹ A temporary transfer will only be allowed if no other appropriator is injured.⁴⁹²

3. Other Provisions

Groundwater Storage

The Board of Control has ruled that storage of groundwater in a reservoir is a beneficial use.⁴⁹³ Groundwater may be pumped and stored to use as a supplemental supply for irrigation. But, there has been no case of storing surface water in an underground basin. One commentator states that Wyoming's groundwater laws are sufficiently flexible to accommodate such management, but to date there has been little need for these techniques.

Interstate Use of Groundwater

The legislature must specifically approve all water appropriated, stored or diverted for use outside the state or for use as a medium of transportation to another state if the use requires more than 1,000 acre feet. Also, no one may transfer the use of a water right to outside the state without prior approval by the legislature. Applications for use out of state must be submitted to the state engineer with sufficient information to analyze the proposed appropriation. The state engineer will then comprehensively review the application and issue a preliminary analysis of the application. The analysis will be published for three weeks. The state engineer will then hold a public hearing. The state engineer will consider all comments received at the public hearing in his final opinion. He shall then submit his final opinion to the state legislature. The legislature then bases its decision on ensuring the state's interest in conserving and preserving its water resources for the maximum beneficial use.⁴⁹⁴

LINKS TO WESTERN STATE CONSTITUTIONS AND STATUTES CONCERNING GROUNDWATER

ARIZONA

ARIZONA CONSTITUTION
ARTICLE 17 WATER RIGHTS
<http://www.azleg.state.az.us/Constitution.asp?Article=17>

ARIZONA STATUTES
TITLE 45 WATERS
<http://www.azleg.state.az.us/ArizonaRevisedStatutes.asp?Title=45>

CALIFORNIA

CALIFORNIA CONSTITUTION
ARTICLE 10 WATER
http://www.leginfo.ca.gov/const/article_10

CALIFORNIA WATER CODE
<http://www.leginfo.ca.gov/cgi-bin/calawquery?codesection=wat&codebody=&hits=20>

COLORADO

COLORADO CONSTITUTION
ARTICLE XVI MINING AND IRRIGATION
<http://198.187.128.12/colorado/lpext.dll?f=templates&fn=fs-main.htm&2.0>

COLORADO STATUTES
TITLE 37 WATER AND IRRIGATION : WATER RIGHTS AND IRRIGATION ARTICLE 90
UNDERGROUND WATER
<http://198.187.128.12/colorado/lpext.dll?f=templates&fn=fs-main.htm&2.0>

IDAHO

CONSTITUTION OF THE STATE OF IDAHO
ARTICLE XV WATER RIGHTS
<http://www3.state.id.us/legislat/idstat.html>

IDAHO CODE
TITLE 42 IRRIGATION AND DRAINAGE -- WATER RIGHTS AND RECLAMATION
CHAPTER 2 APPROPRIATION OF WATER -- PERMITS, CERTIFICATES, AND
LICENSES – SURVEY
<http://www3.state.id.us/idstat/TOC/42FTOC.html>

MONTANA

MONTANA CONSTITUTION

ARTICLE IX ENVIRONMENT AND NATURAL RESOURCES

http://leg.state.mt.us/css/mtcode_const/const.asp

MONTANA CODE

TITLE 85 WATER USE

Chapter 2. Surface Water and Ground Water. Part 5. Ground Water

http://leg.state.mt.us/css/mtcode_const/laws.asp

NEVADA

NEVADA CONSTITUTION

<http://www.leg.state.nv.us/Const/NVConst.html>

NEVADA STATUTES

TITLE 48 WATERS

CHAPTER 534 UNDERGROUND WATER AND WELLS

<http://www.leg.state.nv.us/NRS/Index.cfm>

NEW MEXICO

NEW MEXICO CONSTITUTION

<http://www.amlegal.com/nxt/gateway.dll?f=templates&fn=default.htm&vid=newmexico:statutes>

NEW MEXICO STATUTES ANNOTATED

<http://www.amlegal.com/nxt/gateway.dll?f=templates&fn=default.htm&vid=newmexico:statutes>

OREGON

OREGON CONSTITUTION

<http://www.leg.state.or.us/orcons/orcons.html>

OREGON REVISED STATUTES

<http://www.leg.state.or.us/ors/537.html>

UTAH

UTAH CONSTITUTION

<http://www.le.state.ut.us/~code/const/const.htm>

UTAH CODE ANN.

<http://www.le.state.ut.us/~code/code.htm>

WASHINGTON

WASHINGTON STATE CONSTITUTION

http://www.courts.wa.gov/education/constitution/?fa=education_constitution_display&displayid=Article-21

WASHINGTON STATE REVISED CODES

http://www.leg.wa.gov/rcw/index.cfm#RCW_by_Title

WYOMING

WYOMING CONSTITUTION

<http://legisweb.state.wy.us/statutes/titles/title97.htm>

WYOMING STATUTES

<http://legisweb.state.wy.us/statutes/sub41.htm>

Notes

- ¹ See Jeffrey S. Ashley and Zachary A. Smith, *GROUNDWATER MANAGEMENT IN THE WEST* 5 (1999).
- ² Ashley & Smith, *GROUNDWATER MANAGEMENT IN THE WEST* 5-6 (1999).
- ³ Ashley & Smith, *GROUNDWATER MANAGEMENT IN THE WEST* 6-7 (1999).
- ⁴ Ashley & Smith, *GROUNDWATER MANAGEMENT IN THE WEST* 15 (1999).
- ⁵ Robert Glennon, "Pinching Straws: Reforming Ground and Surface Water Law to Protect the Environment," Rocky Mountain Mineral Law Institute (2003).
- ⁶ Ashley & Smith, *GROUNDWATER MANAGEMENT IN THE WEST* 3-4 (1999).
- ⁷ A. Dan Tarlock, "Groundwater and Growth Management in the New West: Evolving Law and Practice," paper presented at the annual conference of the Natural Resources Law Center, Boulder CO, June 7-9,2000, at 2.
- ⁸ Cited in Robert Glennon, *WATER FOLLIES* 31 (2002).
- ⁹ Robert Glennon, *WATER FOLLIES* 30-31 (2002).
- ¹⁰ Robert Glennon, *WATER FOLLIES* 1-3 (2002).
- ¹¹ Robert Glennon, *WATER FOLLIES* 28-29 (2002).
- ¹² See Glennon, chs 3,4,8,11, and 12.
- ¹³ Peter Gleick, *THE WORLD'S WATER: THE BIENNIAL REPORT ON FRESHWATER RESOURCES, 2002-2003* 2 (2002).
- ¹⁴ Marq de Villiers, *WATER: THE FATE OF OUR MOST PRECIOUS RESOURCE* 6-7, 20-21 (2001).
- ¹⁵ Gleick, at 49-50, 77.
- ¹⁶ Quoted in Ashley & Smith, at 15.
- ¹⁷ David R.E. Aladjem, "California's Other 'Dual System:' Coordinated Management of Groundwater and Surface Water," Rocky Mountain Mineral Law Institute (2003).
- ¹⁸ Robert Glennon, "Pinching Straws: Reforming Ground and Surface Water Law to Protect the Environment," Rocky Mountain Mineral Law Institute (2003).
- ¹⁹ Quoted by Glennon, at 29.
- ²⁰ The discussion of these four doctrines is based on Ashley & Smith, at 8-10.
- ²¹ Ashley & Smith, at 10.
- ²² See Ashley & Smith, at 10.
- ²³ "Arizona," 6 *W. WATER L. & POL'Y REP.* 297 (2002).
- ²⁴ *AZ. CONSTIT. ART. XVII, § 1*
- ²⁵ *AZ. CONSTIT. ART. XVII, § 2*
- ²⁶ *ARIZ. REV. STAT. ANN. § 45-103* (2002).
- ²⁷ *ARIZ. REV. STAT. ANN. § 45-105* (2002).
- ²⁸ *ARIZ. REV. STAT. ANN. § 45-101(5)* (2002).
- ²⁹ *ARIZ. REV. STAT. ANN. § 45-401* (2002).
- ³⁰ Arizona Department of Water Resources, *Overview of AZ's Groundwater Management Code, available at* <http://www.water.az.gov/adwr/Content/Publications/files/gwmgtovw.pdf>.
- ³¹ *ARIZ. REV. STAT. ANN. §45-141(A)* (2002).
- ³² *ARIZ. REV. STAT. ANN. §45-141(B)* (2002).
- ³³ *ARIZ. REV. STAT. ANN. §45-141(C)* (2002).
- ³⁴ *ARIZ. REV. STAT. ANN. §45-141(D)* (2002).

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- ³⁵ ARIZ. REV. STAT. ANN. §45-141(E) (2002).
³⁶ ARIZ. REV. STAT. ANN. § 45-453 (2002).
³⁷ ARIZ. REV. STAT. ANN. § 45-411 (2002).
³⁸ ARIZ. REV. STAT. ANN. § 45-411.03 (2002).
³⁹ ARIZ. REV. STAT. ANN. § 45-412 (2002).
⁴⁰ ARIZ. REV. STAT. ANN. § 45-412 (2002).
⁴¹ ARIZ. REV. STAT. ANN. § 45-413 (2002).
⁴² ARIZ. REV. STAT. ANN. § 45-415 (2002).
⁴³ ARIZ. REV. STAT. ANN. § 45-419 (2002).
⁴⁴ ARIZ. REV. STAT. ANN. § 45-421 (2002).
⁴⁵ ARIZ. REV. STAT. ANN. § 45-431 (2002).
⁴⁶ ARIZ. REV. STAT. ANN. § 45-432 (2002).
⁴⁷ ARIZ. REV. STAT. ANN. § 45-433 (2002).
⁴⁸ ARIZ. REV. STAT. ANN. § 45-435 (2002).
⁴⁹ ARIZ. REV. STAT. ANN. § 45-435 (2002).
⁵⁰ ARIZ. REV. STAT. ANN. § 45-436 (2002).
⁵¹ ARIZ. REV. STAT. ANN. § 45-437(A) (2002).
⁵² ARIZ. REV. STAT. ANN. § 45-437(B) (2002).
⁵³ ARIZ. REV. STAT. ANN. § 45-437(C) (2002).
⁵⁴ ARIZ. REV. STAT. ANN. § 45-437.01 (2002).
⁵⁵ ARIZ. REV. STAT. ANN. § 45-437.01 (2002).
⁵⁶ ARIZ. REV. STAT. ANN. § 45-437.03 (2002).
⁵⁷ ARIZ. REV. STAT. ANN. § 45-439 (2002).
⁵⁸ ARIZ. REV. STAT. ANN. § 45-451 (2002).
⁵⁹ ARIZ. REV. STAT. ANN. § 45-452 (2002).
⁶⁰ ARIZ. REV. STAT. ANN. § 45-452(A) (2002).
⁶¹ ARIZ. REV. STAT. ANN. § 45-452(B) (2002).
⁶² ARIZ. REV. STAT. ANN. § 45-452(B) (2002).
⁶³ ARIZ. REV. STAT. ANN. § 45-452(B) (2002).
⁶⁴ ARIZ. REV. STAT. ANN. § 45-462 (2002).
⁶⁵ ARIZ. REV. STAT. ANN. §45-463(A) (2002).
⁶⁶ ARIZ. REV. STAT. ANN. § 45-522 (2002).
⁶⁷ ARIZ. REV. STAT. ANN. § 45-523 (2002).
⁶⁸ ARIZ. REV. STAT. ANN. § 45-523 (2002).
⁶⁹ ARIZ. REV. STAT. ANN. § 45-523 (2002).
⁷⁰ ARIZ. REV. STAT. ANN. § 45-526 (2002).
⁷¹ ARIZ. REV. STAT. ANN. § 45-541 (2002).
⁷² ARIZ. REV. STAT. ANN. § 45-543 (2002).
⁷³ ARIZ. REV. STAT. ANN. § 45-552 to 555 (2002).
⁷⁴ ARIZ. REV. STAT. ANN. § 45-562 (2002).
⁷⁵ ARIZ. REV. STAT. ANN. § 45-563 (2002).
⁷⁶ ARIZ. REV. STAT. ANN. § 45-563 (2002).
⁷⁷ ARIZ. REV. STAT. ANN. § 45-563.02 (2002).
⁷⁸ ARIZ. REV. STAT. ANN. § 45-564 (2002).
⁷⁹ ARIZ. REV. STAT. ANN. § 45-570 (2002).

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- ⁸⁰ ARIZ. REV. STAT. ANN. § 45-576 (2002).
- ⁸¹ ARIZ. REV. STAT. ANN. § 45-576 (2002).
- ⁸² ARIZ. REV. STAT. ANN. § 45-576 (2002).
- ⁸³ ARIZ. REV. STAT. ANN. § 45-811.01(C) (2002).
- ⁸⁴ ARIZ. REV. STAT. ANN. § 45-812.01 (2002).
- ⁸⁵ ARIZ. REV. STAT. ANN. § 45-831.01 (2002).
- ⁸⁶ ARIZ. REV. STAT. ANN. § 45-832.01 (2002).
- ⁸⁷ “California,” 6 W. WATER . & POL’Y REP. 300 (2002).
- ⁸⁸ CAL. CONST. ART. X § 2
- ⁸⁹ CAL. CONST. ART. X § 2
- ⁹⁰ CAL. CONST. ART. X § 5
- ⁹¹ CAL. WATER CODE § 101 (West 1970).
- ⁹² CAL. WATER CODE § 104 (West 1970).
- ⁹³ CAL. WATER CODE § 380 (Supp. 2003).
- ⁹⁴ Ella Foley-Gannon, *Institutional Arrangements for Conjunctive Water Management in California and Analysis of Legal Reform Alternatives*, 6 HASTINGS W.-N.W.J. ENVTL. L. & POL’Y 273, 291-92 (2000).
- ⁹⁵ Ella Foley-Gannon, *Institutional Arrangements for Conjunctive Water Management in California and Analysis of Legal Reform Alternatives*, 6 HASTINGS W.-N.W.J. ENVTL. L. & POL’Y 273 (2000), FN 193.
- ⁹⁶ CAL. WATER CODE §§ 60000-60449 (West 1966).
- ⁹⁷ CAL. WATER CODE §§ 10750 to 10755.4 (West 1992 & Supp. 2003).
- ⁹⁸ CAL. WATER CODE § 10753.7(a)(1) (Supp. 2003).
- ⁹⁹ CAL. WATER CODE § 10753.7(a)(2) (Supp. 2003).
- ¹⁰⁰ CAL. WATER CODE § 10753.7(a)(3) (Supp. 2003).
- ¹⁰¹ CAL. WATER CODE § 10753.8 (Supp. 2003).
- ¹⁰² CAL. WATER CODE § 10753.9 (Supp. 2003).
- ¹⁰³ CAL. WATER CODE § 301 (West 1970).
- ¹⁰⁴ CAL. WATER CODE § 302 (West 1970).
- ¹⁰⁵ CAL. WATER CODE § 303 (West 1970).
- ¹⁰⁶ CAL. WATER CODE § 305 (West 1970).
- ¹⁰⁷ CAL. WATER CODE § 1005.1-1005.4. (West 1970 & Supp. 2003).
- ¹⁰⁸ CAL. WATER CODE § 1011.5 (Supp. 2003).
- ¹⁰⁹ CAL. WATER CODE § 1200 (West 1970).
- ¹¹⁰ CAL. WATER CODE § 1205 (Supp. 2003).
- ¹¹¹ CAL. WATER CODE § 1220 (Supp. 2003).
- ¹¹² CAL. WATER CODE § 1242 (West 1970).
- ¹¹³ CAL. WATER CODE § 5001 (West 1970).
- ¹¹⁴ CAL. WATER CODE § 5004 (West 1970).
- ¹¹⁵ CAL. WATER CODE § 4999 (West 1970).
- ¹¹⁶ CAL. WATER CODE §§ 13550-13554.3 (West 1992 & Supp. 2003).
- ¹¹⁷ CAL. WATER CODE § 60233.5 (Supp. 2003).
- ¹¹⁸ CAL. WATER CODE § 60233.5 (Supp. 2003).
- ¹¹⁹ CAL. WATER CODE § 60233.5 (Supp. 2003).
- ¹²⁰ CAL. WATER CODE § 60233.5 (Supp. 2003).

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- ¹²¹ CAL. WATER CODE § 79174 (Supp. 2003).
- ¹²² CAL. WATER CODE APP. § 40-2 . (West 1968 & Supp. 2003).
- ¹²³ CAL. WATER CODE APP. §§ 128-1 to 128-906 (Supp. 2003).
- ¹²⁴ Colorado Geological Survey, GROUNDWATER ATLAS OF COLORADO (2003).
- ¹²⁵ COLO. CONST. ART. XVI § 5, § 6.
- ¹²⁶ COLO. REV. STAT. § 37-90-103(19) (2002).
- ¹²⁷ COLO. REV. STAT. § 37-90-102(1) (2002).
- ¹²⁸ COLO. REV. STAT. § 37-90-137(4)(a)-(b) (2002).
- ¹²⁹ COLO. REV. STAT. § 37-90-137(4) (2002).
- ¹³⁰ COLO. REV. STAT. § 37-90-117 (2002).
- ¹³¹ COLO. REV. STAT. § 37-90-130 (2002).
- ¹³² COLO. REV. STAT. § 37-92-201, 203 (2002).
- ¹³³ COLO. REV. STAT. § 37-92-102(2) (2002).
- ¹³⁴ COLO. REV. STAT. § 37-92-102(1)(a) (2002).
- ¹³⁵ COLO. REV. STAT. § 37-92-102(2)(d) (2002).
- ¹³⁶ COLO. REV. STAT. § 37-90-107 (2002).
- ¹³⁷ COLO. REV. STAT. § 37-90-107(1) (2002).
- ¹³⁸ COLO. REV. STAT. § 37-90-107(3) (2002).
- ¹³⁹ COLO. REV. STAT. § 37-90-107(4) (2002).
- ¹⁴⁰ COLO. REV. STAT. § 37-90-107(5) (2002).
- ¹⁴¹ COLO. REV. STAT. § 37-90-107(5) (2002).
- ¹⁴² *Fundingsland v. Colorado Ground Water Comm'n*, 468 P.2d 835, 836 (Colo. 1970). In this case, the proposed well was in the Northern High Plains Designated Groundwater Basin, so the allowable depletion rate was 40%. Also in 1970 the average life was 25 years. Now the commission uses 100 years. Code of Colorado Regulations, 2 COLO. CODE REGS. § 402-4. (2002).
- ¹⁴³ COLO. REV. STAT. § 37-90-107(5) (2002).
- ¹⁴⁴ COLO. REV. STAT. § 37-90-103(12.7) (2002).
- ¹⁴⁵ COLO. REV. STAT. § 37-90-107.5 (2002).
- ¹⁴⁶ COLO. REV. STAT. § 37-90-108 (2002).
- ¹⁴⁷ COLO. REV. STAT. § 37-90-108(3)(a)(I) (2002).
- ¹⁴⁸ COLO. REV. STAT. § 37-90-108(5). A quarter-quarter means a fourth of a fourth of a section of land and is equal to approximately forty acres. COLO. REV. STAT. § 37-90-103(12.5) (2002).
- ¹⁴⁹ COLO. REV. STAT. § 37-90-105 (2002).
- ¹⁵⁰ COLO. REV. STAT. § 37-90-137(4)(b) (2002).
- ¹⁵¹ 2 COLO. CODE REGS. § 402-7 (2002).
- ¹⁵² 2 COLO. CODE REGS. § 402-7 (2002).
- ¹⁵³ 2 COLO. CODE REGS. § 402-7 (2002).
- ¹⁵⁴ COLO. REV. STAT. § 37-90-137(1)-(2) (2002).
- ¹⁵⁵ 2 COLO. CODE REGS. § 402-6 (2002).
- ¹⁵⁶ COLO. REV. STAT. § 37-90-137(4) (2002).
- ¹⁵⁷ Justice Gregory Hobbs Jr., *Citizens Guide to Colorado Water Law*, Colorado Foundation for Water Education 16 (2003).
- ¹⁵⁸ COLO. REV. STAT. § 37-92-301(1) (2002).

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- ¹⁵⁹ COLO. REV. STAT. § 37-92-602 (2002).
- ¹⁶⁰ COLO. REV. STAT. § 37-90-103(10.7) (2002).
- ¹⁶¹ COLO. REV. STAT. § 37-90-137(9)(c.5) (2002); *Danielson v. Castle Meadows, Inc.*, 791 P.2d 1106 (Colo. 1990).
- ¹⁶² COLO. REV. STAT. § 37-80.5-101 (2002).
- ¹⁶³ 2 COLO. CODE REGS. § 402-12 (2002).
- ¹⁶⁴ 2 COLO. CODE REGS. § 402-11 (2002).
- ¹⁶⁵ *Bd. of County Comm'rs of County of Park v. Park County Sportsmen's Ranch, L.L.P.*, 45 P.3d 693 (Colo. 2002).
- ¹⁶⁶ COLO. REV. STAT. § 37-81-103 (2002).
- ¹⁶⁷ COLO. REV. STAT. § 37-90-130(2)(f) (2002); *See Coffin v. Left Hand Ditch Co.*, 6 Colo. 443 (1882).
- ¹⁶⁸ IDAHO CONSTIT. ART. XV, § 1
- ¹⁶⁹ IDAHO CONSTIT. ART. XV, § 3
- ¹⁷⁰ IDAHO CONSTIT. ART. XV, § 3
- ¹⁷¹ IDAHO CONSTIT. ART. XV, § 4
- ¹⁷² IDAHO CONSTIT. ART. XV, § 5
- ¹⁷³ IDAHO CONSTIT. ART. XV, § 7
- ¹⁷⁴ IDAHO CODE § 42-603 (2003).
- ¹⁷⁵ IDAHO CODE § 42-604 (2003).
- ¹⁷⁶ IDAHO CODE § 42-607 (2003).
- ¹⁷⁷ IDAHO CODE § 42-1734A (2003).
- ¹⁷⁸ IDAHO CODE § 42-226 (2003).
- ¹⁷⁹ IDAHO CODE § 42-230(a) (2003).
- ¹⁸⁰ IDAHO CODE § 42-103; § 42-229 (2003).
- ¹⁸¹ IDAHO CODE § 42-104 (2003).
- ¹⁸² IDAHO CODE § 42-106 (2003).
- ¹⁸³ IDAHO CODE § 42-111 (2003).
- ¹⁸⁴ IDAHO CODE § 42-227 (2003).
- ¹⁸⁵ IDAHO CODE § 42-227 (2003).
- ¹⁸⁶ IDAHO CODE § 42-226 (2003).
- ¹⁸⁷ IDAHO ADMIN. CODE § 37.03.11.029 (2003).
- ¹⁸⁸ IDAHO CODE § 42-233a (2003).
- ¹⁸⁹ IDAHO CODE § 42-233a (2003).
- ¹⁹⁰ IDAHO CODE § 42-233a (2003).
- ¹⁹¹ IDAHO CODE § 42-233b (2003).
- ¹⁹² IDAHO CODE § 42-233b (2003).
- ¹⁹³ IDAHO CODE § 42-233b (2003).
- ¹⁹⁴ IDAHO CODE § 42-1416B(4) (2003).
- ¹⁹⁵ IDAHO CODE § 42-202 (2003).
- ¹⁹⁶ IDAHO CODE § 42-202 (2003).
- ¹⁹⁷ IDAHO CODE § 42-202(4) (2003).
- ¹⁹⁸ IDAHO CODE § 42-222(2) (2003).
- ¹⁹⁹ IDAHO CODE § 42-222(2) (2003); *but see* § 42-223 which lists exceptions or defenses to forfeitures.

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- ²⁰⁰ IDAHO CODE § 42-203A(2) (2003).
²⁰¹ IDAHO CODE § 42-203A(4) (2003).
²⁰² IDAHO CODE § 42-203A (2003).
²⁰³ IDAHO CODE § 42-203A(5) (2003).
²⁰⁴ IDAHO CODE § 42-237b (2003).
²⁰⁵ IDAHO CODE § 42-237d (2003).
²⁰⁶ IDAHO CODE § 42-237d (2003).
²⁰⁷ IDAHO CODE § 42-237c (2003).
²⁰⁸ IDAHO CODE § 42-237c (2003).
²⁰⁹ IDAHO CODE § 42-1404 (2003).
²¹⁰ IDAHO CODE § 42-1405 (2003).
²¹¹ IDAHO CODE § 42-1405 (2003).
²¹² IDAHO CODE § 42-1411(5) (2003).
²¹³ IDAHO CODE § 42-234 (2003).
²¹⁴ IDAHO CODE § 42-234 (2003).
²¹⁵ IDAHO CODE § 42-234 (2003).
²¹⁶ IDAHO CODE § 42-4201 (2003).
²¹⁷ IDAHO CODE § 42-401(3) (2003).
²¹⁸ MONT. CODE ANN. § 85-1-101 (2003).
²¹⁹ MONT. CODE ANN. § 85-1-101 (2003).
²²⁰ MONT. CODE ANN. § 85-1-203 (2003).
²²¹ Plan can be found at the Department of Natural Resources web page at:
http://www.dnrc.state.mt.us/wrd/gw_plan.htm
²²² IDAHO CODE § 85-2-903 (2003).
²²³ MONT. CONST., ART IX §3(1).
²²⁴ MONT. CONST., ART IX §3(3).
²²⁵ MONT. CONST., ART IX §3(4).
²²⁶ MONT. CODE ANN. § 85-2-102(11) (2003).
²²⁷ MONT. CODE ANN. § 85-2-212 (2003).
²²⁸ MONT. CODE ANN. § 85-2-212 (2003).
²²⁹ MONT. CODE ANN. § 85-2-212 (2003).
²³⁰ § MONT. CODE ANN. § 85-2-222 (2003).
²³¹ Montana Department of Natural Resources and Conservation, *Water Rights in Montana* (2001); available at <http://www.dnrc.state.mt.us/wrd/home.htm>.
²³² MONT. CODE ANN. § 85-2-401(1) (2003).
²³³ MONT. CODE ANN. § 85-2-401(1) (2003).
²³⁴ MONT. CODE ANN. § 85-2-404(1) (2003).
²³⁵ MONT. CODE ANN. § 85-2-406 (2003).
²³⁶ MONT. CODE ANN. § 85-2-302 (2003).
²³⁷ MONT. CODE ANN. § 85-2-311(1) (2003).
²³⁸ MONT. CODE ANN. § 85-2-311(3) (2003).
²³⁹ MONT. CODE ANN. § 85-2-317 (2003).
²⁴⁰ MONT. CODE ANN. § 85-2-317 (2003).
²⁴¹ MONT. CODE ANN. § 85-2-506 (2003).
²⁴² MONT. CODE ANN. § 85-2-507 (2003).

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- ²⁴³ MONT. CODE ANN. § 85-2-507(4) (2003).
²⁴⁴ MONT. CODE ANN. § 85-2-508 (2003).
²⁴⁵ MONT. CODE ANN. § 85-2-319 (2003).
²⁴⁶ MONT. CODE ANN. § 85-2-330 (2003).
²⁴⁷ MONT. CODE ANN. § 85-2-336 (2003).
²⁴⁸ MONT. CODE ANN. § 85-2-337 (2003).
²⁴⁹ MONT. CODE ANN. § 85-2-337(3) (2003).
²⁵⁰ See MONT. ADMIN R. 36-12-1019 (2003)(Truman Creek Basin Closure); MONT. ADMIN R. 36-12-1018 (2003)(Willow Creek Basin Closure); MONT. ADMIN R. 36-12-1017 (2003)(Sharrott Creek Basin Closure).
²⁵¹ MONT. CODE ANN. § 85-2-341 (2003).
²⁵² MONT. CODE ANN. § 85-2-340(2) (2003).
²⁵³ MONT. ADMIN R. 36-12-1201 (2003).
²⁵⁴ MONT. CODE ANN. § 85-2-316(1) (2003).
²⁵⁵ MONT. CODE ANN. § 85-2-316(3) (2003).
²⁵⁶ MONT. CODE ANN. § 85-2-316(4) (2003).
²⁵⁷ MONT. CODE ANN. § 85-20-201 (2003).
²⁵⁸ MONT. CODE ANN. § 85-20-401 (2003).
²⁵⁹ MONT. CODE ANN. § 85-2-311(4) (2003).
²⁶⁰ MONT. CODE ANN. § 82-11-175(2) (2003).
²⁶¹ MONT. CODE ANN. § 82-11-175(3)(a) (2003).
²⁶² MONT. CODE ANN. § 82-11-175(3)(b) (2003).
²⁶³ NEV. CONST. ART. 8 § 8.
²⁶⁴ NEV. REV. STAT. § 533.035 (Michie 1995).
²⁶⁵ NEV. REV. STAT. § 533.070 (Michie 1995).
²⁶⁶ NEV. REV. STAT. § 533.357 (Michie 1995).
²⁶⁷ NEV. REV. STAT. § 533.370 (Michie 1995 & Supp. 2001).
²⁶⁸ NEV. REV. STAT. § 534.020 (Michie 1995).
²⁶⁹ NEV. REV. STAT. § 534.090 (Michie 1995).
²⁷⁰ NEV. REV. STAT. § 534.120 (Michie 1995 & Supp. 2001).
²⁷¹ NEV. REV. STAT. § 534.180 (Michie 1995 & Supp. 2001).
²⁷² NEV. REV. STAT. § 534.250 (Michie 1995).
²⁷³ NEV. REV. STAT. § 538.600 (Michie 1995).
²⁷⁴ N.M. CONST. ART. XVI, § 1.
²⁷⁵ N.M. CONST. ART. XVI, § 2.
²⁷⁶ N.M. CONST. ART. XVI, § 3.
²⁷⁷ N.M. CONST. ART. XVI, § 5.
²⁷⁸ N.M. STAT. ANN. § 72-12-4 (Michie 1978).
²⁷⁹ N.M. STAT. ANN. § 72-12-5 (Michie 1978).
²⁸⁰ N.M. STAT. ANN. § 72-12-1 (Michie 1978).
²⁸¹ *Bliss, State ex rel v. Dority*, 225 P.2d 1007, 1101 (N.M. 1950). See also, N.M. STAT. ANN. § 72-12-12 (Michie 1978).
²⁸² N.M. STAT. ANN. § 72-12-20 (Michie 1978).
²⁸³ eg. Thomas C. Turney, Office of the State Engineer, *Estancia Underground Water Basin Guidelines for Review of Water Rights Applications* (June 20,2002).

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- ²⁸⁴ N.M. STAT. ANN. § 72-12-12 (Michie 1978).
²⁸⁵ N.M. STAT. ANN. § 72-12-1.1 (Michie 1978 & Supp. 2003).
²⁸⁶ N.M. STAT. ANN. § 72-12-1.1 (Michie 1978 & Supp. 2003).
²⁸⁷ N.M. STAT. ANN. § 72-12-1.2 (Michie 1978 & Supp. 2003).
²⁸⁸ N.M. STAT. ANN. § 72-12-1.3 (Michie 1978 & Supp. 2003).
²⁸⁹ N.M. STAT. ANN. § 72-12-25 (Michie 1978).
²⁹⁰ N.M. STAT. ANN. § 72-12-26 (Michie 1978).
²⁹¹ N.M. STAT. ANN. § 72-12-27 (Michie 1978).
²⁹² N.M. STAT. ANN. § 72-12-28 (Michie 1978).
²⁹³ N.M. STAT. ANN. § 72-12-3 (Michie 1978 & Supp. 2003).
²⁹⁴ N.M. STAT. ANN. § 72-12-3(E) (Michie 1978 & Supp. 2003).
²⁹⁵ N.M. STAT. ANN. § 72-12-8 (Michie 1978 & Supp. 2003).
²⁹⁶ N.M. STAT. ANN. § 72-12-8 (Michie 1978 & Supp. 2003).
²⁹⁷ N.M. STAT. ANN. § 72-12-8 (Michie 1978 & Supp. 2003).
²⁹⁸ N.M. STAT. ANN. § 72-4-17 (Michie 1978).
²⁹⁹ N.M. STAT. ANN. § 72-4-19 (Michie 1978).
³⁰⁰ N.M. STAT. ANN. § 72-13-1 (Michie 1978).
³⁰¹ N.M. STAT. ANN. § 72-13-2 (Michie 1978).
³⁰² N.M. STAT. ANN. § 72-13-2 (Michie 1978).
³⁰³ State Engineer's Office, *Governing Drilling of Wells and Appropriation and Use of Ground Water in New Mexico*; available at <http://www.seo.state.nm.us/doing-business/well-drilling/Well-Drilling-Rules-Regs.pdf>.
³⁰⁴ N.M. STAT. ANN. § 72-12A-2 (Michie 1978).
³⁰⁵ N.M. STAT. ANN. § 72-12A-6 (Michie 1978).
³⁰⁶ N.M. STAT. ANN. § 72-12A-7 (Michie 1978).
³⁰⁷ N.M. STAT. ANN. § 72-12A-4 (Michie 1978).
³⁰⁸ N.M. STAT. ANN. § 72-12A-4 (Michie 1978).
³⁰⁹ N.M. STAT. ANN. § 72-12B-1 (Michie 1978).
³¹⁰ N.M. STAT. ANN. § 72-12B-1 (Michie 1978).
³¹¹ N.M. STAT. ANN. § 72-12B-1 (Michie 1978).
³¹² N.M. STAT. ANN. § 72-12B-1 (Michie 1978).
³¹³ N.M. STAT. ANN. § 72-5A-8 (Michie 1978 & Supp. 2003).
³¹⁴ N.M. ADMIN. CODE tit. 19.25.8.10 NMAC - N, 01-31-2001
³¹⁵ N.M. STAT. ANN. § 72-5A-5 (Michie 1978 & Supp. 2003).
³¹⁶ N.M. STAT. ANN. § 72-5A-5 (Michie 1978 & Supp. 2003).
³¹⁷ N.M. STAT. ANN. § 72-5A-6 (Michie 1978 & Supp. 2003).
³¹⁸ N.M. STAT. ANN. § 72-5A-8 (Michie 1978 & Supp. 2003); see N.M. ADMIN. CODE tit. 19.25.8.2 NMAC - N, 01-31-2001.
³¹⁹ OR. REV. STAT. § 537.515(5) (2001).
³²⁰ OR. REV. STAT. § 537.535 (2001).
³²¹ OR. REV. STAT. § 536.025 (2001).
³²² OR. REV. STAT. § 537.780 (2001).
³²³ OR. REV. STAT. § 536.025 (2001).
³²⁴ OR. REV. STAT. § 536.037 (2001).
³²⁵ OR. REV. STAT. § 537.525 (2001).

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- ³²⁶ OR. REV. STAT. § 540.610 (2001).
- ³²⁷ OR. REV. STAT. § 540.610 (2001).
- ³²⁸ OR. REV. STAT. § 537.525 (2001).
- ³²⁹ OR. REV. STAT. § 537.525 (2001).
- ³³⁰ OR. REV. STAT. § 537.705 (2001).
- ³³¹ OR. REV. STAT. § 536.340 (2001).
- ³³² OR. REV. STAT. § 536.340 (2001).
- ³³³ OR. REV. STAT. § 390.835(9) (2001).
- ³³⁴ OR. REV. STAT. § 537.515(9) (2001).
- ³³⁵ OR. ADMIN. R. 690-008-0001 (2001). "Declined excessively" is defined as meaning any cumulative lowering of the water levels in a groundwater reservoir or a part thereof which (a) precludes or could preclude the perpetual use of the reservoir, or (b) exceeds the economic pumping level; or (c) constitutes a decline determined to be interfering with a senior right; or (d) constitutes a lowering of the annual high water level within a groundwater reservoir, or part thereof greater than fifty feet below the highest known level; or (e) results in groundwater pollution; or (f) constitutes a lowering of the annual high water level greater than 15% of the greatest known saturated thickness of the groundwater reservoir. The stated thickness shall be calculated using pre-development water levels and the bottom of the groundwater reservoir, or the economic pumping level, whichever is shallower. *Id.* at 690-008-0001(4). "Economic pumping levels means the level below land surface at which the per-acre cost of pumping equals 70 percent of the net increase in annual per-acre value derived by irrigating. (The Value is to be calculated on a five year running average of the per-acre value of the three, if there are that many, prevalent irrigated crops in the regions minus the five year running average of the per-acre value of the three, if there are that many, prevalent regional non-irrigated crops." *Id.* at 690-008-0001(5)
- ³³⁶ OR. REV. STAT. § 537.545 (2001).
- ³³⁷ OR. REV. STAT. § 537.621(2) (2001).
- ³³⁸ OR. REV. STAT. § 537.621(3) (2001).
- ³³⁹ OR. REV. STAT. § 537.621(7) (2001).
- ³⁴⁰ *See* OR. REV. STAT. §§ 183.310-183.550 (2001).
- ³⁴¹ OR. REV. STAT. § 537.625(2001).
- ³⁴² OR. REV. STAT. § 537.625 (2001).
- ³⁴³ OR. REV. STAT. §537.630(1) (2001).
- ³⁴⁴ OR. REV. STAT. § 537.629 (2001).
- ³⁴⁵ OR. ADMIN. R. 690-009-0040(4) (2001).
- ³⁴⁶ OR. ADMIN. R. 690-009-0040(6) (2001).
- ³⁴⁷ OR. ADMIN. R. 690-500-0010 (2001).
- ³⁴⁸ OR. REV. STAT. § 537.730 (2001).
- ³⁴⁹ OR. REV. STAT. § 537.735 (2001).
- ³⁵⁰ OR. REV. STAT. § 537.735 (2001).
- ³⁵¹ OR. REV. STAT. § 537.745 (2001).
- ³⁵² OR. REV. STAT. § 537.745 (2001).
- ³⁵³ OR. REV. STAT. § 537.809 (2001).
- ³⁵⁴ OR. REV. STAT. § 537.810 (2001).

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- ³⁵⁵ OR. REV. STAT. § 537.531 (2001).
- ³⁵⁶ OR. REV. STAT. § 537.135 (2001).
- ³⁵⁷ OR. REV. STAT. § 537.135 (2001).
- ³⁵⁸ OR. REV. STAT. § 537.135 (2001).
- ³⁵⁹ OR. REV. STAT. § 537.135(2) (2001).
- ³⁶⁰ OR. REV. STAT. § 537.135(4) (2001).
- ³⁶¹ OR. REV. STAT. § 537.143 (2001) & OR. REV. STAT. § 537.534 (2001).
- ³⁶² OR. REV. STAT. § 537.534 (2001).
- ³⁶³ OR. ADMIN. R. 690-350-0010 (2001).
- ³⁶⁴ UTAH CONST. Art. XI §6. One court was of the opinion that this section was not intended to apply to an adjudication of water rights. *Wayman v. Murray City Corp.*, 458 P.2d 861 (Utah 1969) fn 11.
- ³⁶⁵ UTAH CODE ANN. § 73-1-1 (2003).
- ³⁶⁶ UTAH CODE ANN. § 73-1-3 (2003).
- ³⁶⁷ UTAH CODE ANN. § 73-3-21 (2003).
- ³⁶⁸ UTAH CODE ANN. § 73-3-8(2) (2003).
- ³⁶⁹ UTAH CODE ANN. § 73-3-1 (2003).
- ³⁷⁰ UTAH CODE ANN. § 71-3-2(2) (2003).
- ³⁷¹ UTAH CODE ANN. § 73-3-6 (2003).
- ³⁷² UTAH CODE ANN. § 73-3-7 (2003).
- ³⁷³ UTAH CODE ANN. § 73-3-8 (2003).
- ³⁷⁴ UTAH CODE ANN. § 73-3-10 (2003).
- ³⁷⁵ UTAH CODE ANN. § 73-3-12(2)(a) (2003).
- ³⁷⁶ UTAH CODE ANN. § 73-3-12(2)(b) (2003).
- ³⁷⁷ UTAH CODE ANN. § 73-3-12(2)(c) (2003).
- ³⁷⁸ UTAH CODE ANN. § 73-3-13 (2003).
- ³⁷⁹ See groundwater management plans for the Bountiful Sub-Area of the East Shore Area(1/95), Cedar Valley (11/95), Interim Cache Valley (9/99), Northern Juab Valley (11/95), Pahvant Valley (4/94), Salt Lake Valley (6/02), Snyderville/Park City Basin (12/02), Tooele Valley (2/96), Upper Provo River (11/95), Utah/Goshen Valley (11/95), Weber Delta Sub-Area of the East Shore Area (10/95), Monticello Mill Tailing Site and Adjacent Areas(5/99).
- ³⁸⁰ Cache Valley Ground-Water Management Plan.
- ³⁸¹ UTAH CODE ANN. § 73-3a-108 (2003).
- ³⁸² UTAH CODE ANN. § 73-3b-106 (2003).
- ³⁸³ UTAH CODE ANN. § 73-3b-202 (2003).
- ³⁸⁴ UTAH CODE ANN. § 73-3b-205 (2003).
- ³⁸⁵ UTAH CODE ANN. § 73-3b-301 (2003).
- ³⁸⁶ UTAH CODE ANN. § 73-3b-301 (2003).
- ³⁸⁷ “Utah” Groundwater Management, Conjunctive Use and Water Banking, 6 W. WATER L. & POL’Y REP. 321 (2002).
- ³⁸⁸ Waiting for more info!
- ³⁸⁹ WASH. REV. CODE § 90.03.005 to 90.03.605 (surface water code) and 90.44.020 to 90.44.500 (groundwater code).

³⁹⁰ WASH. REV. CODE § 90.03.010 (1992); *State of Washington Dept. of Ecology v. Campbell & Gwinn, L.L.C.*, 43 P.2d 4 (Wash. 2002)

³⁹¹ WASH. REV. CODE § 90.14.220 (1992).

³⁹² WASH. REV. CODE § 90.03.010 (1992)

³⁹³ WASH. REV. CODE § 90.44.040 (1992).

³⁹⁴ WASH. REV. CODE § 90.44.060 (1992).

³⁹⁵ WASH. REV. CODE § 90.03.340 (1992).

³⁹⁶ WA Const. Art. 21 § 1

³⁹⁷ WASH. REV. CODE § 90.44.035(3) (1992).

³⁹⁸ WASH. REV. CODE § 90.44.035(4) (1992).

³⁹⁹ WASH. REV. CODE § 90.44.035(5) (1992).

⁴⁰⁰ WASH. REV. CODE § 90.44.040 (1992).

⁴⁰¹ WASH. REV. CODE § 90.14.180 (1992).

⁴⁰² WASH. REV. CODE §§ 90.54.005-920 (1992).

⁴⁰³ WASH. REV. CODE § 90.54.040 (1992 & Supp. 2003).

⁴⁰⁴ WASH. REV. CODE § 90.54.020 (1992 & Supp. 2003).

⁴⁰⁵ WASH. ADMIN. CODE § 173-500-010 (1992).

⁴⁰⁶ WASH. ADMIN. CODE § 173-500-040 (1992).

⁴⁰⁷ WASH. ADMIN. CODE § 173-500-060 (1992).

⁴⁰⁸ WASH. REV. CODE § 90.66.030 (1992).

⁴⁰⁹ WASH. REV. CODE § 90.44.050 (1992).

⁴¹⁰ WASH. REV. CODE § 90.03.260 (1992).

⁴¹¹ WASH. REV. CODE § 90.03.260 (1992).

⁴¹² WASH. REV. CODE § 90.03.260 (1992).

⁴¹³ WASH. REV. CODE § 90.44.060 (1992).

⁴¹⁴ WASH. REV. CODE § 90.03.280 (1992 & Supp. 2003).

⁴¹⁵ WASH. REV. CODE § 90.03.280 (1992 & Supp. 2003).

⁴¹⁶ WASH. REV. CODE § 90.03.290 (1992 & Supp. 2003).

⁴¹⁷ WASH. REV. CODE § 90.03.290(3) (Supp. 2003).

⁴¹⁸ WASH. REV. CODE § 90.03.290(3) (Supp. 2003).

⁴¹⁹ WASH. REV. CODE § 90.03.290(4) (Supp. 2003).

⁴²⁰ WASH. REV. CODE § 90.44.070 (1992).

⁴²¹ WASH. REV. CODE § 90.44.070 (1992).

⁴²² WASH. REV. CODE § 90.44.130 (1992).

⁴²³ WASH. REV. CODE § 90.44.130 (1992).

⁴²⁴ WASH. REV. CODE § 90.44.130 (1992).

⁴²⁵ WASH. REV. CODE § 90.44.400 (1992).

⁴²⁶ WASH. REV. CODE § 90.44.130 (1992).

⁴²⁷ WASH. REV. CODE § 90.44.130 (1992).

⁴²⁸ WASH. REV. CODE § 90.44.180 (1992).

⁴²⁹ WASH. REV. CODE § 90.44.180 (1992).

⁴³⁰ WASH. REV. CODE § 90.44.180 (1992).

⁴³¹ WASH. REV. CODE § 90.44.200 (1992).

⁴³² WASH. REV. CODE § 90.44.410 (1992).

⁴³³ WASH. REV. CODE § 90.44.420 (1992).

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- 434 WASH. REV. CODE § 90.44.420 (1992).
- 435 WASH. REV. CODE § 90.44.440 (1992).
- 436 WASH. REV. CODE § 90.03.320 (1992 & Supp. 2003).
- 437 WASH. REV. CODE § 90.03.320 (1992 & Supp. 2003).
- 438 WASH. REV. CODE § 90.03.330 (1992).
- 439 WASH. REV. CODE § 90.44.080 (1992).
- 440 WASH. REV. CODE § 90.03.300 (1992).
- 441 WASH. REV. CODE § 90.03.300 (1992).
- 442 WASH. ADMIN. CODE § 173-157-040 (Supp. 2003).
- 443 WASH. REV. CODE § 90.03.370(2) (1992 & Supp. 2003).
- 444 WASH. REV. CODE § 90.03.370(1)(a) (1992 & Supp. 2003).
- 445 Doug McChesney, *2001 Report to the Legislature, Artificial Storage and Recovery of Ground Water Progress Report*; found at <http://www.ecy.wa.gov/biblio/0111019.html>.
- 446 WASH. ADMIN. CODE § 173-157-110 (Supp. 2003).
- 447 WASH. ADMIN. CODE § 173-157-200(3) (Supp. 2003).
- 448 WASH. ADMIN. CODE § 173-157-200(7)
- 449 *Hunt v. City of Laramie*, 26 Wyo. 160 (1919). The Wyoming Supreme Court stated Wyoming followed the absolute ownership rule of groundwater. Absolute ownership of groundwater is a rule of capture that allows the landowner to use the water for any purpose including wasteful uses and uses on other lands.
- 450 WYO. CONSTIT. ART. 8 § 1.
- 451 WYO. CONSTIT. ART. 8 § 3.
- 452 WYO. STAT. § 41-3-901(a)(ii) (2003).
- 453 WYO. STAT. § 41-3-916 (2003).
- 454 WYO. STAT. § 41-3-912(a) (2003).
- 455 WYO. STAT. § 41-3-912(a) (2003).
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- 465 Larence J. Wolfe & Jennifer G. Hager, *Wyoming's Groundwater Laws: Quantity and Quality Regulation*, 24 LAND & WATER L. REV. 40, 50 (1989).
- 466 WYO. STAT. § 41-3-930(b) (2003).
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- 468 WYO. STAT. § 41-3-931 (2003).
- 469 WYO. ADMIN. CODE, ST. ENG'R, GROUNDWATER Ch. 2, § 2 (2003).
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- ⁴⁷⁴ WYO. STAT. § 41-3-932(a) (2003).
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⁴⁷⁶ WYO. STAT. § 41-3-932(c) (2003).
⁴⁷⁷ WYO. STAT. § 41-3-934 (2003).
⁴⁷⁸ WYO. STAT. § 41-3-934 (2003).
⁴⁷⁹ WYO. ADMIN. CODE, ST. ENG’R, GROUNDWATER Ch. 2, § 10 (2003).
⁴⁸⁰ WYO. STAT. § 41-3-918 (2003).
⁴⁸¹ WYO. STAT. § 41-3-911(a) (2003).
⁴⁸² WYO. STAT. § 41-3-911(b) (2003).
⁴⁸³ *Willadsen v. Christopulos*, 731 P.2d 1181 (Wyo. 1987).
⁴⁸⁴ WYO. STAT. § 41-3-907 (2003).
⁴⁸⁵ WYO. STAT. § 41-3-907 (2003).
⁴⁸⁶ WYO. STAT. § 41-3-935(b) (2003).
⁴⁸⁷ WYO. STAT. § 41-3-935(b) (2003).
⁴⁸⁸ WYO. STAT. § 41-3-904 (2003).
⁴⁸⁹ WYO. STAT. § 41-3-904(a)(ii) (2003); WYO. ADMIN. CODE, ST. ENG’R,
GROUNDWATER Ch.1, § 19 (2003).
⁴⁹⁰ Larence J. Wolfe & Jennifer G. Hager, *Wyoming's Groundwater Laws: Quantity and
Quality Regulation*, 24 LAND & WATER L. REV. 40, 67 (1989) Authors cite an interview
with the ex state engineer.
⁴⁹¹ WYO. ADMIN. CODE, ST. ENG’R, GROUNDWATER Ch. 2, § 13
⁴⁹² WYO. STAT. § 41-3-110(a) (2003).
⁴⁹³ *John Meier & Son, Inc. v. Horse Creek Conservation Dist. of Goshen*, 603 P.2d 1283
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GROUNDWATER LAW SOURCEBOOK OF THE WESTERN UNITED STATES

APPENDIX

SELECTED STATE GROUNDWATER STATUTES SEPTEMBER 2003

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NOTE: READERS SHOULD CONSULT WEBSITES OF STATE STATUTES (LINKS ARE PROVIDED) TO CHECK FOR CHANGES IN THESE STATUTES.

ARIZONA

ARIZONA CONSTITUTION

ARTICLE 17 WATER RIGHTS

<http://www.azleg.state.az.us/Constitution.asp?Article=17>

Section 1. Riparian water rights

The common law doctrine of riparian water rights shall not obtain or be of any force or effect in the state.

Section 2. Recognition of existing rights

All existing rights to the use of any of the waters in the state for all useful or beneficial purposes are hereby recognized and confirmed.

ARIZONA STATUTES

TITLE 45 WATERS

<http://www.azleg.state.az.us/ArizonaRevisedStatutes.asp?Title=45>

CHAPTER 2 GROUNDWATER CODE

45-401. Declaration of policy

A. The legislature finds that the people of Arizona are dependent in whole or in part upon groundwater basins for their water supply and that in many basins and sub-basins withdrawal of groundwater is greatly in excess of the safe annual yield and that this is threatening to destroy the economy of certain areas of this state and is threatening to do substantial injury to the general economy and welfare of this state and its citizens. The legislature further finds that it is in the best interest of the general economy and welfare of this state and its citizens that the legislature evoke its police power to prescribe which uses of groundwater are most beneficial and economically effective.

B. It is therefore declared to be the public policy of this state that in the interest of protecting and stabilizing the general economy and welfare of this state and its citizens it is necessary to conserve, protect and allocate the use of groundwater resources of the state and to provide a framework for the comprehensive management and regulation of the withdrawal, transportation, use, conservation and conveyance of rights to use the groundwater in this state.

45-411. Initial active management areas; maps

A. Four initial active management areas are established on the effective date of this section. The four initial active management areas are:

1. The Tucson active management area which includes the upper Santa Cruz and Avra valley sub-basins.

2. The Phoenix active management area which includes the east Salt river valley, west Salt river valley, Fountain Hills, Carefree, lake Pleasant, Rainbow valley and Hassayampa sub-basins.
3. The Prescott active management area which includes the Little Chino and upper Agua Fria sub-basins.
4. The Pinal active management area which includes the Maricopa-Stanfield, Eloy, Aguirre valley, Santa Rosa valley and Vekol valley sub-basins.

B. The boundaries of the initial active management areas established under subsection A of this section are shown on the maps filed in the office of the secretary of state on the effective date of this chapter.

C. A true copy of the maps identifying the initial active management areas established under subsection A of this section shall be on file in the department and shall be available for examination by the public during regular business hours. A true copy of the map of each initial active management area established under subsection A of this section shall also be filed in the office of the county recorder of the county or counties in which the active management area is located.

45-411.03. Santa Cruz active management area; map

A. Beginning July 1, 1994, the Santa Cruz active management area is established as an initial active management area which consists of a portion of the upper Santa Cruz valley sub-basin. The boundaries of the Santa Cruz active management area are shown on the map filed in the office of the secretary of state on June 10, 1994.

B. A true copy of the map identifying the boundaries of the Santa Cruz active management area shall be on file in the department and shall be available for examination by the public during regular business hours. A true copy of the map shall also be filed in the office of the county recorder in the counties in which the active management area is located.

45-412. Subsequent active management areas; criteria; review of groundwater basins not subject to active management

A. The director may designate an area which is not included within an initial active management area, pursuant to section 45-411, as a subsequent active management area if the director determines that any of the following exists:

1. Active management practices are necessary to preserve the existing supply of groundwater for future needs.
2. Land subsidence or fissuring is endangering property or potential groundwater storage capacity.
3. Use of groundwater is resulting in actual or threatened water quality degradation.

B. An active management area designated pursuant to this section may include more than one groundwater basin but shall not be smaller than a groundwater basin or include only a portion of a groundwater basin, except for the regional aquifer systems of northern Arizona.

C. The director shall periodically review all areas which are not included within an active management area to determine whether such areas meet any of the criteria for active management areas as prescribed in this section.

45-413. Hearing on designation of subsequent active management areas and boundaries; notice; procedures

A. If the director proposes to designate a subsequent active management area pursuant to section 45-412, subsection A, the director shall hold a public hearing to consider:

1. Whether to issue an order declaring the area an active management area.
2. The boundaries and any sub-basins of the proposed active management area.

B. The director shall give reasonable notice of the hearing under the circumstances which shall include publication once each week for two consecutive weeks in a newspaper of general circulation in each county in which the proposed active management area is located. Any notice shall contain the time and place of the hearing, the legal description and a map clearly identifying and describing all lands to be included in the proposed active management area and any sub-basins and any other information the director deems necessary.

C. The hearing shall be held at a location within the proposed active management area as soon as practicable but no less than thirty days and no more than sixty days after the first publication of the notice of hearing. At the hearing, the director shall present the factual data in his possession in support of the proposed action. Any person may appear at the hearing, either in person or by representative, and submit oral or documentary evidence for or against the proposed action. In making his determination, the director shall give full consideration to public comment and to recommendations made by local political subdivisions.

45-415. Local initiation for active management area; procedures

A. A groundwater basin which is not included within an initial active management area may be designated an active management area upon petition by ten per cent of the registered voters residing within the boundaries of the proposed active management area, as of the most recent report compiled by the county recorder in compliance with section 16-168, subsection G, and a subsequent election held pursuant to the general election laws of this state. The form of the petition shall be the same as for initiative petitions, and the applicant for such petition shall comply with the provisions of section 19-111.

B. Upon application for a petition number with the clerk of the board of supervisors or county election officer, the director shall transmit a map of the groundwater basin to the county recorder of each county in which the proposed active management area is located. The map shall be on a scale adequate to show with substantial accuracy where the boundaries of the groundwater basin cross the boundaries of county voting precincts. The director shall also transmit to the county recorder all other factual data concerning the boundaries of the

groundwater basin that may aid the county recorder in the determination of which registered voters of the county are residents of the groundwater basin.

C. Any registered voter of a county whose residency in the groundwater basin is in question shall be allowed to vote. The ballot shall be placed in a separate envelope, the outside of which shall contain the precinct name and number, the signature of the voter, the residence address of the voter, and the voter registration number of the voter, if available. The voter receipt card shall be attached to the envelope. The county recorder shall verify the ballot for proper residency of the voter before counting. Such verification shall be made within five business days following the election, and the voter receipt card shall be returned to the voter. Verified ballots shall be counted using the procedure outlined for counting early ballots. If residency in the groundwater basin is not verified, the ballot shall remain unopened and shall be destroyed.

D. Except as provided in subsection E of this section, all election expenses incurred pursuant to this section are the responsibility of the county involved.

E. If a groundwater basin is located in two or more counties, the following procedures apply:

1. The petition shall be filed with the clerk of the board of supervisors or county election officer of the county in which the plurality of the registered voters in the groundwater basin resides.
2. The number of registered voters required to sign the petition shall be ten per cent of the registered voters residing within the boundaries of the proposed active management area, as of the most recent report compiled by the county recorder in compliance with section 16-168, subsection G, within the county in which the plurality of the registered voters in the groundwater basin resides.
3. The election shall be called by the board of supervisors of the county in which the petition is filed, and the board shall immediately notify the board of supervisors of any other county included in the groundwater basin of the date of the election. The election shall be held not less than sixty days or more than ninety days from the date of the call. The board of supervisors so notified shall then call the election in that county for the same date and follow the procedures for conducting the general elections in this state.
4. All election expenses incurred pursuant to this subsection are the responsibilities of the counties involved on a proportional basis considering the number of registered voters of each county that are residents of the groundwater basin.

F. The ballot shall be worded, "Should the (insert name of basin) groundwater basin be designated an active management area?" followed by the words "yes" and "no". Opposite each such word there shall be a square in which the voter may make a cross indicating his preference.

45-419. Duties of area director

The area director shall:

1. Assist the director in the development of the management plan for the active management area and implement the plan under the director's supervision.

2. Have such other duties as the director may assign and shall be responsible to the director for the performance of such duties.
3. Furnish technical and clerical services and such other assistance to the groundwater users advisory council as is required, to the extent funds are made available for such assistance.

45-421. Administrative duties of the groundwater users advisory councils

The groundwater users advisory council shall:

1. Advise the area director for the active management area, make recommendations on groundwater management programs and policies for the active management area and comment to the area director and to the director on draft management plans for the active management area before they are promulgated by the director.
2. Keep the minutes of its meetings and all records, reports and other information relative to its work and programs in permanent form indexed and systematically filed.
3. Elect from its members a chairman and vice-chairman for terms of two years expiring on the third Monday of January of each even numbered year.
4. Designate the person or persons who shall execute all documents and instruments on behalf of the council.
5. Manifest and record its actions by motion, resolution or other appropriate means.
6. Make a complete record of its proceedings which shall be open to public inspection during regular business hours in the branch office of the department in the active management area.
7. Provide comment to the Arizona water banking authority with regard to draft plans for additional storage facilities and draft plans of operation in accordance with sections 45-2453 and 45-2456.

45-431. Initial irrigation non-expansion areas

The Douglas critical groundwater area and the Joseph City critical groundwater area, delineated in the orders of the state land commissioner dated May 5, 1965 and December 16, 1974, respectively, are designated as initial irrigation non-expansion areas on the effective date of this chapter and are governed by the provisions of this article.

45-432. Subsequent irrigation non-expansion areas; designation; review

A. The director may designate an area which is not included within an active management area as a subsequent irrigation non-expansion area if the director determines that both of the following apply:

1. There is insufficient groundwater to provide a reasonably safe supply for irrigation of the cultivated lands in the area at the current rates of withdrawal.
2. The establishment of an active management area pursuant to section 45-412 is not necessary.

B. An irrigation non-expansion area established pursuant to this section may include more than one groundwater sub-basin but shall not be smaller than a groundwater sub-basin or include only a portion of a groundwater sub-basin.

45-433. Local initiation for designation; procedures

A. The designation of a subsequent irrigation non-expansion area may be initiated by the director or by petition to the director signed by either:

1. Not less than twenty-five irrigation users of groundwater, or one-fourth of the irrigation users of groundwater within the boundaries of the groundwater basin or sub-basin specified in the petition.
2. Ten per cent of the registered voters residing within the boundaries of the groundwater basin or sub-basin specified in the petition as of the most recent report compiled by the county recorder in compliance with section 16-168, subsection G. The form of the petition shall be the same as for an initiative petition and the applicant for such petition shall comply with the provisions of section 19-111. If a groundwater basin or sub-basin is located in two or more counties, the number of registered voters required to sign the petition shall be ten per cent of the registered voters residing within the boundaries of the groundwater basin or sub-basin, as of the most recent report compiled by the county recorder in compliance with section 16-168, subsection G, within the county in which the plurality of the registered voters in the groundwater basin or sub-basin resides.

B. Upon receipt of a petition pursuant to subsection A, paragraph 2 of this section, the director shall transmit the petition to the county recorder of each county in which the groundwater basin or sub-basin is located for verification of signatures. In addition, the director shall transmit a map of the groundwater basin or sub-basin to the county recorder of each such county included. The map shall be on a scale adequate to show with substantial accuracy where the boundaries of the groundwater basin or sub-basin cross the boundaries of county voting precincts. The director shall also transmit to the county recorder all other factual data concerning the boundaries of the groundwater basin or sub-basin that may aid the county recorder in the determination of which registered voters of the county are residents of the groundwater basin or sub-basin.

45-435. Hearing on designation of subsequent irrigation non-expansion areas and boundaries; notice; procedures

A. If the director finds that an area which is not included within an active management area meets the criteria specified in section 45-432, or a petition is filed pursuant to section 45-433, the director shall hold a public hearing to consider:

1. Whether to issue an order declaring the area an irrigation non-expansion area.
2. The boundaries of the proposed irrigation non-expansion area.

B. The director shall give reasonable notice of the hearing under the circumstances which shall include the publication once each week for two consecutive weeks in a newspaper of general circulation in each county in which the proposed irrigation non-expansion area is located. Any notice shall contain the time and place of the hearing, the legal description and a map

clearly identifying and describing all lands to be included in the proposed irrigation non-expansion area and any other information the director deems necessary.

C. The hearing shall be held at a location in the county in which the major portion of the proposed irrigation non-expansion area is located no less than thirty days but no more than sixty days after the first publication of the notice of the hearing. At the hearing, the director shall present the factual data in his possession in support of or in opposition to the proposed action. Any person may appear at the hearing, either in person or by representative, and submit oral or documentary evidence for or against the proposed action. In making his determination, the director shall give full consideration to public comment and to recommendations made by local political subdivisions.

45-436. Findings upon hearing; order for irrigation non-expansion area; publication

A. Within thirty days after the hearing, the director shall make and file in the director's office written findings with respect to matters considered during the hearing. If the director decides to declare an area an irrigation non-expansion area, the director shall make and file an order designating the irrigation non-expansion area.

B. The findings and order shall be published in the manner and for the length of time prescribed for the publication of notice of the public hearing, and the order is effective when published for the final time. All factual data compiled by the director, a transcript of the hearing, a copy of the findings and a map identifying the lands included in the irrigation non-expansion area are public records of the department and shall be available for examination by the public during regular business hours. The findings and order of the director are subject to rehearing or review and to judicial review as provided in section 45-114, subsection C.

C. The director shall file a true copy of the map in the office of the county recorder of the county or counties in which the irrigation non-expansion area is located.

45-437. Irrigated acreage; water measuring device; annual report of groundwater pumping; penalty; transportation; exemption

A. In an initial irrigation non-expansion area established pursuant to section 45-431, except as provided in subsection E of this section, only acres of land which were legally irrigated at any time between January 1, 1975 and January 1, 1980 may be irrigated with groundwater, effluent, diffused water on the surface or surface water, except as provided in sections 45-172, 45-437.01, 45-437.02 and 45-437.03, and except that this does not prohibit irrigation with surface water used pursuant to decreed or appropriative rights established before June 12, 1980. Land which was not irrigated at any time from January 1, 1975 through January 1, 1980 is deemed to have been in irrigation if the director finds that substantial capital investment has been made in the twelve months before June 12, 1980 for the improvement of the land and on-site irrigation distribution facilities, including the drilling of wells, for an irrigation use. This subsection does not allow irrigation of land which could not have been legally irrigated under prior statutory law.

B. In a subsequent irrigation non-expansion area established pursuant to section 45-432, except as provided in subsection E of this section, only acres of land which were irrigated at any time during the five years preceding the date of the notice of the initiation of designation procedures may be irrigated with groundwater, effluent, diffused water on the surface or surface water, except as provided in sections 45-172, 45-437.01, 45-437.02 and 45-437.03, and except

that this does not prohibit irrigation with surface water used pursuant to decreed or appropriate rights established before the date of the notice. Land which was not irrigated at any time during this five year period is deemed to have been in irrigation if the director finds that substantial capital investment has been made for the subjugation of such land for an irrigation use including on-site irrigation distribution facilities and a well or wells the drilling and construction of which were substantially commenced before the date of the notice of the initiation of designation procedures.

C. Except as provided in subsection F of this section, in an irrigation non-expansion area:

1. Each person withdrawing groundwater from a non-exempt well for an irrigation use and each person withdrawing more than ten acre-feet of groundwater per year from a non-exempt well for a non-irrigation use shall use a water measuring device approved by the director. Each person withdrawing groundwater from a non-exempt well shall file a report on a calendar year basis with the director on a form provided by the director no later than March 31 of the following year. In filing a report, each person withdrawing ten or fewer acre-feet of groundwater per year from a non-exempt well for a non-irrigation use shall estimate the quantity of groundwater withdrawn.

2. Transportations of groundwater are subject to the provisions of articles 8 and 8.1 of this chapter.

D. If a person, who is required under subsection C, paragraph 1 of this section to file an annual report for calendar year 1986 or any subsequent calendar year, fails to file a report for the calendar year in question on or before March 31 of the following year, the director may assess and collect a penalty of twenty-five dollars for each month or portion of a month that the annual report is delinquent. The total penalty assessed under this subsection shall not exceed one hundred fifty dollars. The director shall deposit, pursuant to sections 35-146 and 35-147, all penalties collected under this subsection in the state general fund.

E. In an irrigation non-expansion area, a correctional facility under the jurisdiction of the state department of corrections may irrigate with groundwater, effluent, diffused water on the surface or surface water up to a total of ten acres of land that otherwise may not be irrigated pursuant to subsection A or B of this section if the irrigation is for the purpose of producing plants or parts of plants for consumption by inmates at the correctional facility as part of a prisoner work program and if the correctional facility notifies the director of water resources in writing of the location of the acres of land to be irrigated prior to their irrigation. The actual number of acres of land that a correctional facility may irrigate pursuant to this subsection shall be calculated by subtracting the number of acres of land the correctional facility may already irrigate under subsection A or B of this section from ten.

F. A person who withdraws groundwater from a non-exempt well for an irrigation use is exempt from subsection C, paragraph 1 of this section for those withdrawals if both of the following apply:

1. Groundwater withdrawn from the well for an irrigation use is used only on land that is owned by a person who has the right under subsection A or B of this section to irrigate ten or fewer contiguous acres of land at the place of the use.

2. Groundwater withdrawn from the well is not used on land that is part of an integrated farming operation.

45-437.01. Substitution of irrigated acreage in an irrigation district; central Arizona project water

In an irrigation non-expansion area, a person who owns acres of land which may be irrigated pursuant to section 45-437 may apply to the director during the central Arizona project contracting period, but no later than January 1, 1995, to permanently retire all or a portion of such acres from irrigation and to irrigate conjunctively with central Arizona project water the same number of substitute acres. The director may approve the substitution of acres if the director determines that all of the following exist:

1. The acres to be retired from irrigation and the substitute acres are located outside of the exterior boundaries of the service area of a city, town or private water company and such acres are located within the same irrigation district and the same sub-basin.
2. Central Arizona project water available to the irrigation district within which the acres are located will be adequate to supply the substitute acres. 45-437.03. Impediments to efficient irrigation; substitution of acres; definitions

A. In an irrigation non-expansion area, a person who owns acres of land which are contiguous and which may be irrigated pursuant to section 45-437 may apply to the director to permanently retire a portion of those acres from irrigation and substitute for the retired acres the same number of acres. The director may approve the substitution of acres if the owner demonstrates to the director's satisfaction that all of the following apply:

1. A limiting condition associated with the acres to be retired from irrigation substantially impedes the implementation of more efficient irrigation practices on the legally irrigated acres.
2. The substitution of acres will substantially reduce the limiting condition and will substantially facilitate the implementation of more efficient irrigation practices.
3. The substitute acres are within the same farm unit as the legally irrigated acres that will not be retired.
4. The substitution will not reduce the number of acres of land within the farm unit that are eligible to receive central Arizona project water.
5. If the acres to be retired are located within the exterior boundaries of an irrigation district, the substitute acres will be located within the exterior boundaries of the same irrigation district.
6. The area of land within the substitute acres that is physically capable of being irrigated at the time the application for substitution of acres is filed does not exceed the area of land within the acres to be retired that is physically capable of being irrigated at the time the application for substitution of acres is filed.

B. For purposes of this section:

1. "Legally irrigated acres" means acres of land which are contiguous and which may be irrigated pursuant to section 45-437.
2. "Limiting condition" means any condition that limits the achievement of more efficient irrigation on the legally irrigated acres, including irregularly shaped legally irrigated acres and poor quality soils.

45-439. Conversion from irrigation non-expansion area to active management area; director; local initiation; procedures

A. The director may designate an irrigation non-expansion area as an active management area if the director determines that the irrigation non-expansion area meets any of the criteria for designating an active management area specified in section 45-412, subsection A.

B. Any action taken under this section is subject to the procedures for notice and hearing prescribed by sections 45-413 and 45-414.

C. An irrigation non-expansion area may be designated an active management area upon petition and election pursuant to section 45-415 by the registered voters residing in the groundwater basin which is or includes the irrigation non-expansion area.

45-451. Groundwater rights and uses in active management areas

A. In an active management area, a person may:

1. Withdraw and use groundwater only in accordance with the provisions of articles 5 through 12 of this chapter.
2. Store water in a storage facility, as defined in section 45-802.01, only in accordance with chapter 3.1 of this title.

B. This chapter shall not be construed to affect decreed and appropriative water rights. Nothing in this chapter shall be construed to affect the definition of surface water in section 45-101 and the definition of water subject to appropriation in section 45-141 or the provisions of article 9 of chapter 1 of this title.

C. Notwithstanding subsection B of this section, solely in the Santa Cruz active management area:

1. The withdrawal of water, other than stored water, from a well and the distribution and use of water, other than stored water, withdrawn from a well shall be subject to any applicable conservation requirements established by the director in the management plans for the active management area pursuant to article 9 of this chapter.
2. The withdrawal of water from a well shall be subject to any applicable well location requirements contained in article 10 of this chapter.

45-452. No new irrigated acreage in active management areas; central Arizona project water; exemption

A. In an initial active management area, except as provided in subsections B, H, I and J of this section and sections 45-172, 45-465.01 and 45-465.02, only acres of land which were legally irrigated at any time from January 1, 1975 through January 1, 1980, which are capable of being irrigated, which have not been retired from irrigation for a non-irrigation use pursuant to section 45-463 or 45-469 and for which the irrigation grandfathered right has not been conveyed for a non-irrigation use, may be irrigated with any groundwater, effluent, diffused water on the surface or surface water, except that this does not prohibit irrigation with surface water used pursuant to decreed or appropriative rights established before June 12, 1980. In an initial active management area, land which was not irrigated at any time from January 1, 1975 through January 1, 1980 is deemed to have been in irrigation if the director finds that either of the following applies:

1. In areas of an initial active management area not designated as critical groundwater areas under prior statutory law prior to the date of the designation of the active management area, land is deemed to have been in irrigation if substantial capital investment has been made for the subjugation of such land for an irrigation use including on-site irrigation distribution facilities and a well or wells the drilling and construction of which were substantially commenced prior to the date of the designation of the active management area.
2. In areas of an initial active management area which were designated as critical groundwater areas under prior statutory law, land is deemed to have been in irrigation if substantial capital investment has been made in the twelve months before June 12, 1980 for the improvement of the land and on-site irrigation distribution facilities, including the drilling of wells, for an irrigation use. This paragraph does not allow irrigation of land which could not have been legally irrigated under prior statutory law.

B. In an initial active management area, a person who owns acres of land which may be irrigated pursuant to subsection A of this section may apply to the director to permanently retire all or a portion of such acres from irrigation and to irrigate conjunctively with central Arizona project water the same number of substitute acres. The director may approve the substitution of acres if the director determines that all of the following exist:

1. The substitute acres were legally irrigated during the period of September 30, 1958 to September 30, 1968, or such other period as the United States secretary of the interior may designate.
2. The acres to be retired from irrigation and the substitute acres are located outside of the exterior boundaries of the service area of a city, town or private water company and such acres are located within the same irrigation district and the same sub-basin.
3. The substitution of acres is necessary to enable the irrigation district within which the acres are located to more efficiently deliver central Arizona project water.
4. Central Arizona project water available to the irrigation district within which the acres are located will be adequate to supply the substitute acres.

5. The substitution of acres will benefit the management of the active management area in which the acres are located.

C. Any acres permanently retired from irrigation pursuant to subsection B of this section relinquish their irrigation grandfathered rights, and such rights are deemed to be appurtenant to the substitute acres. Groundwater withdrawn or received for the irrigation of the substitute acres pursuant to an irrigation grandfathered right shall be reduced by the amount of central Arizona project water received for such acres.

D. The service area of the irrigation district in which the acres are located shall be modified to permanently delete the acres permanently retired from irrigation and include the substitute acres.

E. If a person retires land from irrigation pursuant to subsection B of this section, groundwater shall not be withdrawn from such retired land for any purpose unless pursuant to a groundwater withdrawal permit or unless withdrawn by a city, town or private water company within the service area of such city, town or private water company.

F. The director may reverse the substitution of irrigated acres as provided by subsections B through E of this section under the following conditions and procedures:

1. Title to the retired acres and substitute acres has reverted involuntarily, or voluntarily in lieu of foreclosure or forfeiture, to a previous owner or owners of the retired and substitute acres.
2. The current owner of the retired acres must apply to the director in writing stating:
 - (a) The history of the original substitution of acres under subsections B through E of this section.
 - (b) The circumstances regarding the reversion of title to the current owner or owners.
 - (c) Why reversal of the substitution of acres is necessary.
3. The director must find that reversing the substitution of acres:
 - (a) Will benefit the management of the active management area.
 - (b) Is necessary to prevent unreasonable hardship to the current owner of the retired acres.
 - (c) Will not cause unreasonable hardship to the current owner of the substitute acres, if owned separately from the retired acres.
4. If the director decides to reverse the substitution of acres:
 - (a) The originally retired irrigation acres regain their original irrigation grandfathered rights, but groundwater withdrawn or received for the irrigation of those acres pursuant to

an irrigation grandfathered right shall be reduced by any amount of central Arizona project water received for such acres.

(b) The substitute acres relinquish all irrigation grandfathered rights that were transferred to them under the original substitution of acres.

(c) The service area of the irrigation district in which the acres are located shall be modified to delete the substitute acres and include the originally retired irrigation acres.

(d) Groundwater may not thereafter be withdrawn from the substitute acres for any purpose unless pursuant to a groundwater withdrawal permit or unless withdrawn by a city, town or private water company within its service area.

G. In a subsequent active management area, except as provided in subsections H, I and J of this section or section 45-172, only acres of land which were legally irrigated at any time during the five years preceding the date of the notice of the initiation of designation procedures or the call for the election, which are capable of being irrigated, which have not been retired from irrigation for a non-irrigation use pursuant to section 45-463 or 45-469 and for which the irrigation grandfathered right has not been conveyed for a non-irrigation use, may be irrigated with groundwater, effluent, diffused water on the surface or surface water, except that this does not prohibit irrigation with surface water used pursuant to decreed or appropriative rights established before the date of the notice or the call. In a subsequent active management area, land is deemed to have been in irrigation if the director finds that either of the following applies:

1. In areas of a subsequent active management area which were not irrigation non-expansion areas, land is deemed to have been in irrigation if substantial capital investment has been made for the subjugation of such land for an irrigation use including on-site irrigation distribution facilities and a well or wells the drilling and construction of which were substantially commenced before the date of the notice of the initiation of designation procedures or the call for the election.

2. In areas of a subsequent active management area which were irrigation non-expansion areas, land is deemed to have been in irrigation if the director finds that substantial capital investment has been made in the twelve months before the date of the notice of the initiation of designation procedures or the call for the election, for the improvement of the land and on-site irrigation distribution facilities, including the drilling of wells, for an irrigation use. This paragraph does not allow irrigation of land which could not have been legally irrigated under section 45-437.

H. In an active management area, a state university engaged in the teaching and study of and experimentation in the science of agriculture may irrigate not more than three hundred twenty acres of land for such purposes with not more than five acre-feet of groundwater per acre per year. Water produced from any well pursuant to this subsection shall not be leased, sold or transported off the irrigated land operated by the state university. The right to withdraw and use groundwater pursuant to this subsection does not require a withdrawal permit, is not a grandfathered right, shall not give rise to a grandfathered right and may not be conveyed to any other user.

I. In an active management area, a correctional facility under the jurisdiction of the state department of corrections may irrigate with groundwater, effluent, diffused water on the surface or surface water up to a total of ten acres of land that otherwise may not be irrigated pursuant to subsection A or G of this section if the irrigation is for the purpose of producing plants or parts of plants for consumption by inmates at the correctional facility as part of a prisoner work program and if the correctional facility notifies the director of water resources in writing of the location of the acres of land to be irrigated prior to their irrigation. The actual number of acres of land that a correctional facility may irrigate pursuant to this subsection shall be calculated by subtracting the number of acres of land the correctional facility may already irrigate under subsection A or G of this section from ten. The amount of water that a correctional facility may use during a year to irrigate acres of land pursuant to this subsection shall not exceed an amount calculated by multiplying the number of acres of land that are actually irrigated by the correctional facility during the year pursuant to this subsection, by four and one-half acre-feet of water. The right to withdraw and use groundwater pursuant to this subsection does not require an irrigation grandfathered right, is not a grandfathered right, shall not give rise to a grandfathered right, and may not be conveyed to any other user.

J. During the second management period, acres of land in an active management area which have been retired from irrigation for a non-irrigation use pursuant to section 45-463 or 45-469 or for which the irrigation grandfathered right has been conveyed for a non-irrigation use pursuant to section 45-472 may be irrigated with effluent, other than effluent recovered pursuant to a recovery well permit issued under chapter 3.1 of this title or effluent given or received pursuant to a water exchange under chapter 4 of this title, and shall retain its appurtenant type 1 non-irrigation grandfathered right where the following conditions are met:

1. The land to be irrigated lies within the boundaries of an incorporated city or town.
2. The governing body or manager of the city or town has consented in writing to the irrigation of the land with effluent.
3. The effluent proposed for irrigation of the land cannot be reasonably beneficially used otherwise.
4. The owner of the land gives written notice to the director of intention to irrigate the land with effluent and receives written approval from the director before commencing irrigation. The notice shall set forth the legal description of the land to be irrigated, the certificate number of the type 1 non-irrigation grandfathered right appurtenant to the land, the source of effluent and the reasons the effluent cannot be reasonably beneficially used otherwise, and shall be accompanied by a copy of the written consent of the city or town in which the land to be irrigated is located.

K. A person who may irrigate with effluent land to which a type 1 non-irrigation right is appurtenant under subsection J of this section may relinquish the right to irrigate all or a portion of the land by giving the director written notice that the person relinquishes the right. The notice shall include a legal description of the acres to be relinquished. The relinquishment is effective upon receipt of the notice by the director.

L. If a person who may irrigate with effluent land to which a type 1 non-irrigation grandfathered right is appurtenant under subsection J of this section conveys all or a portion of the land to a successor owner, the successor owner shall not irrigate the land prior to providing written notification to the director of the successor owner's intention to irrigate the land and receiving approval from the director pursuant to subsection J of this section.

M. Section 45-114, subsections A and B govern administrative proceedings, rehearing or review and judicial review of final decisions of the director under this section. If an administrative hearing is held, it shall be conducted in the active management area in which the use is located.

45-453. Groundwater rights and uses in areas outside active management areas; amounts; transportation; irrigation non-expansion areas

In areas outside of active management areas, a person may:

1. Withdraw and use groundwater for reasonable and beneficial use, except as provided in article 8.1 of this chapter.

2. Transport groundwater pursuant to articles 8 and 8.1 of this chapter.

3. Use groundwater for irrigation purposes within the exterior boundaries of an irrigation non-expansion area only pursuant to article 3 of this chapter.

45-462. Grandfathered groundwater rights; persons included; certificate of exemption amount is legal use

A. In an active management area, a person who was legally withdrawing and using groundwater as of the date of the designation of the active management area or who owns land legally entitled to be irrigated with groundwater as determined pursuant to this article has the right to withdraw or receive and use groundwater as determined by the director pursuant to this article.

B. For purposes of determining grandfathered rights pursuant to this article, a groundwater use shall not be determined to be illegal merely because the groundwater legally withdrawn is or has been transported.

C. The amount of groundwater use described by an application for a certificate of exemption is recognized as a legal use for purposes of determining grandfathered rights pursuant to section 45-464, subject to any modification as a result of a finding on appeal of a factual mistake by the state land department or Arizona water commission in computing the amount of the authorized withdrawal.

D. The right to withdraw or receive and use groundwater pursuant to this article is a grandfathered right. There are three categories of grandfathered rights as follows:

1. Non-irrigation grandfathered rights associated with retired irrigated land as determined pursuant to sections 45-463, 45-469 and 45-472.

2. Non-irrigation grandfathered rights not associated with retired irrigated land as determined pursuant to section 45-464.
3. Irrigation grandfathered rights as determined pursuant to section 45-465.

45-463. Type 1 non-irrigation grandfathered right associated with retired irrigated land; appurtenancy; ownership

A. In an initial active management area, a person who owns land which was legally entitled to be irrigated with groundwater and who retired such land from irrigation after January 1, 1965 but prior to the date of the designation of the active management area in anticipation of a non-irrigation use has the right to withdraw from or receive for such land three acre-feet of groundwater per acre per year upon showing that:

1. The land has been held under the same ownership since it was retired.
2. A development plan for the proposed non-irrigation use existed at the time the land was retired.

B. In a subsequent active management area, a person who owns land which was legally entitled to be irrigated with groundwater and retires such land from irrigation prior to the date of the designation of the active management area in anticipation of a non-irrigation use has the right to withdraw from or receive for such land the lesser of three acre-feet of groundwater per acre per year or the average annual amount of groundwater which was used per acre during the five years preceding the time the land was retired upon showing that:

1. The land has been held under the same ownership since it was retired.
2. A development plan for the proposed non-irrigation use existed at the time the land was retired and is filed with the director within ninety days after the active management area is designated.

C. The development plan requirements of this section are deemed fulfilled if the land retired from irrigation has been described in an application for a certificate of exemption or if the land retired from irrigation is owned in conjunction with non-irrigation uses existing or for which substantial capital commitments have been incurred for the non-irrigation development of such land as of the date of the designation of the active management area.

D. The right to withdraw or receive groundwater pursuant to this section is a non-irrigation grandfathered right associated with retired irrigated land, or a type 1 non-irrigation grandfathered right.

E. A type 1 non-irrigation grandfathered right is appurtenant to the acre of retired irrigated land associated with the right, is owned by the owner of the land to which the right is appurtenant and may be leased with the land.

F. At the request of a city or town in the Tucson active management area that holds a type 1 non-irrigation grandfathered right under subsection A of this section, the director, in determining whether to designate or redesignate the city or town as having an assured water supply pursuant

to section 45-576, shall include four and one-half acre-feet of groundwater for each acre of retired irrigated land to which the right is appurtenant, multiplied by the number of years between the year of retirement and the year of the request, minus the quantity of groundwater withdrawn from the land between June 12, 1980 and the year of the request, except that:

1. No groundwater may be included for any acre of retired irrigated land for any year after the land is developed for any municipal or industrial use.
2. The amount of groundwater that is included under this subsection shall not exceed four and one-half acre-feet for each acre of retired irrigated land to which the right is appurtenant multiplied by the number of years between the year of retirement and December 31, 2025 minus the quantity of groundwater withdrawn from the land between June 12, 1980 and December 31, 2025.
3. The net amount of groundwater included under this subsection shall not exceed two million acre-feet.
4. The city or town, before making the request of the director, shall extinguish any irrigation grandfathered rights or type 1 non-irrigation grandfathered rights held by the city or town and appurtenant to land acquired or contracted for by the city or town after June 12, 1980 in the same sub-basin.

G. In determining whether to designate a city or town as having an assured water supply pursuant to section 45-576, the director shall not consider the exercise of the right to withdraw groundwater under subsection F of this section to be the withdrawal of groundwater available from natural or artificial groundwater recharge.

45-522. Correction of application

Upon receipt of an application, the director shall endorse on the application the date of its receipt and keep a record of the application. If the director determines the application is incorrect or incomplete, the director may request additional information from the applicant. The director may conduct independent investigations as may be necessary to determine whether the application should be approved or rejected.

45-523. Notice; objections; hearing

A. Except as provided in section 45-518, subsection D and section 45-519.01, subsection F, when the permit application is determined complete and correct, the director shall, within fifteen days of such determination, give notice of the application once each week for two consecutive weeks in a newspaper of general circulation in the county or counties in which the active management area in which the applicant proposes to withdraw groundwater is located.

B. Notice pursuant to subsection A of this section shall state that objections to the issuance of the permit may be filed, by persons residing in the active management area, in writing, with the director within fifteen days after the last publication of notice and that objections are limited to whether the permit application meets the criteria for issuance of a permit as set forth in this article. An objection shall state the name and mailing address of the objector, be signed by the objector, the objector's agent or the objector's attorney and clearly set forth reasons why the permit should not be issued.

C. In appropriate cases, including cases where a proper written objection to the permit application has been filed, an administrative hearing may be held before the director's decision on the application if the director deems a hearing necessary. The director shall, thirty days prior to the date of the hearing, give notice to the applicant and to any person who filed a proper written objection to the issuance of the permit. The hearing shall be scheduled for not less than sixty days nor more than ninety days after the expiration of the time in which to file objections.

D. Section 45-114, subsections A and B govern administrative proceedings, rehearing or review and judicial review of final decisions of the director under this section. If an administrative hearing is held, it shall be conducted in the active management area in which the use is located.

45-526. Appeals

A person whose application is denied or a person who contested a permit by filing a proper objection pursuant to section 45-523 may seek judicial review of the decision in the superior court.

45-541. Transportation within a sub-basin

A. Groundwater which is withdrawn pursuant to a grandfathered right or a groundwater withdrawal permit or from an exempt well may be transported without payment of damages within a sub-basin of an active management area, subject to the limitations on location of use in sections 45-472 and 45-473.

B. Groundwater which is withdrawn by a city, town or private water company within its service area may be transported without payment of damages within its service area within a sub-basin of an active management area.

C. Groundwater which is withdrawn by a city, town or private water company within its service area may be transported pursuant to a delivery contract authorized by section 45-492, subsection C, without payment of damages, within a sub-basin of an active management area.

D. Groundwater which is withdrawn by an irrigation district within its service area may be transported without payment of damages within its service area within a sub-basin of an active management area.

45-543. Transportation between sub-basins or away from an active management area; damages; non-irrigation grandfathered right not associated with retired irrigated land; service area withdrawals; permit; exempt well

A. Groundwater may be transported between sub-basins of an active management area or away from an active management area, subject to payment of damages, if the groundwater is withdrawn:

1. Pursuant to a type 2 non-irrigation grandfathered right, except that groundwater withdrawn pursuant to a type 2 non-irrigation grandfathered right may not be transported away from the Pinal active management area to another initial active management area for the purpose of demonstrating and providing an assured water supply.

2. By a city, town or private water company within its service area and transported within its service area, except that groundwater withdrawn by a city, town or private water company within its service area may not be transported away from the Pinal active management area.
3. By an irrigation district within its service area and transported within its service area.
4. Pursuant to a groundwater withdrawal permit.
5. From an exempt well.

B. Groundwater which is withdrawn by a city, town or private water company within its service area may be transported pursuant to a delivery contract authorized by section 45-492, subsection C between sub-basins of an active management area and shall be subject to payment of damages unless the groundwater is withdrawn pursuant to a type 1 non-irrigation grandfathered right.

45-552. Transportation of groundwater withdrawn in McMullen valley basin to an active management area; definitions

A. A city that purchased land before January 1, 1988 in the McMullen valley groundwater basin or a person who purchased land before January 1, 1988 that was in that basin and that was in the same county as an adjacent initial active management area may, either directly or in exchange for central Arizona project water allocated for agricultural purposes, transport groundwater from that land to an adjacent initial active management area for use by any city, town, private water company or groundwater replenishment district. A city, town, private water company or groundwater replenishment district that purchases any land in the McMullen valley groundwater basin from that city or land that was in that basin and that was in the same county as an adjacent initial active management area from that person may, either directly or in exchange for central Arizona project water allocated for agricultural purposes, transport groundwater from that land to the adjacent initial active management area only for use by a city, town, private water company or groundwater replenishment district. The amount of groundwater that may be transported away from the basin shall be determined pursuant to subsection B of this section but shall not exceed:

1. In any year two times the annual transportation allotment for the land determined pursuant to subsection B of this section.
2. For any period of ten consecutive years computed in continuing progressive series beginning in the year transportation of groundwater from the land begins, ten times the annual transportation allotment for the land determined pursuant to subsection B of this section.
3. Six million acre-feet in total.

B. The director shall determine the annual transportation allotment for land that is subject to this section as follows:

1. Determine each farm or portion of a farm on that land.

2. For each such farm or portion of a farm, determine the historically irrigated acres.
3. Multiply the sum of those historically irrigated acres for all such farms or portions of farms by three acre-feet per acre.

C. In an initial active management area, for purposes of determining whether to issue a certificate of assured water supply or to designate or redesignate a city, town or private water company as having an assured water supply, pursuant to section 45-576, based in whole or in part on groundwater transported from the groundwater basin under this section, the director shall consider only the amount of groundwater that can be withdrawn in the groundwater basin from a depth to one thousand two hundred feet at the site or sites of the proposed withdrawals at a rate that, when added to the existing rates of withdrawal in the area, is not expected to cause the groundwater table at the site or sites to decline more than an average of ten feet per year during the one hundred year evaluation period and does not exceed forty per cent of the groundwater that can be withdrawn in the groundwater basin, less the sum of the following amounts of groundwater in the groundwater basin:

1. The total amount on which the director has already based certificates or designations of assured water supply in an initial active management area.
2. The total amount transported to an initial active management area for other purposes.

D. For purposes of this section:

1. Land that is owned by a city, town, private water company or groundwater replenishment district includes land that is owned indirectly through a nonprofit corporation or other entity that is owned or controlled by the city, town, private water company or groundwater replenishment district.
2. "Person" means person as defined in section 45-402 and a person who purchased land before January 1, 1988 includes any successor in interest of that person if the successor acquires an interest in the land by means of either of the following:
 - a) Inheritance, devise or intrafamily gift or conveyance directly or in trust.
 - (b) The reorganization of a closely held corporation, a partnership or a limited liability company that is and remains owned by or controlled by or for the benefit of individuals related to that person.
3. "Historically irrigated acres" means land overlying an aquifer that was irrigated with groundwater from that aquifer before January 1, 1988.

45-553. Transportation of groundwater withdrawn in Butler Valley groundwater basin to an initial active management area

A. Groundwater may be withdrawn from land owned by this state or by a political subdivision of this state in the Butler Valley groundwater basin for transportation to an initial active management area.

B. Title to land in the Butler Valley groundwater basin that is owned by this state or a political subdivision of this state and from which groundwater is withdrawn for transportation to an initial active management area may be sold, exchanged or otherwise conveyed only to this state or to another political subdivision of this state.

45-554. Transportation of groundwater withdrawn in Harquahala irrigation non-expansion area to an initial active management area

A. A groundwater replenishment district established under title 48, chapter 27 may lease from an irrigation district located entirely within the Harquahala irrigation non-expansion area the use of one or more of the wells in the irrigation district to withdraw the groundwater that can be withdrawn from a depth to one thousand feet, at a rate that, when added to the existing rates of withdrawal in the area, does not cause the groundwater table at the site or sites to decline more than ten feet per year, for transportation to an initial active management area. The lease payments shall be made to the members of the irrigation district on a pro rata basis, per acre of land that is eligible to be irrigated under section 45-437, subsection B, minus the irrigation district's administrative costs. Wells leased under this subsection are exempt from well spacing requirements under section 45-559.

B. A political subdivision that owns land eligible to be irrigated under section 45-437, subsection B in the Harquahala irrigation non-expansion area may withdraw groundwater from the land for transportation to an initial active management area only:

1. If the groundwater is withdrawn:

(a) From a depth to one thousand feet at the site or sites of the proposed withdrawals.

(b) At a rate that, when added to the existing rate of withdrawals in the area, does not cause the groundwater table at the site or sites of the withdrawals to decline more than an average of ten feet per year during the one hundred year evaluation period.

2. In an amount either:

(a) Per acre of the eligible land, not to exceed:

(i) Six acre-feet in any year.

(ii) Thirty acre-feet for any period of ten consecutive years computed in continuing progressive series beginning in the year transportation of groundwater from the land begins.

(b) Established by the director, but only if the director determines that withdrawals in an amount greater than that permitted by subdivision (a) of this paragraph will not unreasonably increase damage to residents of surrounding land and other water users in the irrigation non-expansion area, or that one or more of the entities withdrawing the groundwater will mitigate the damage to the residents and other water users.

C. If this state or one or more political subdivisions of this state own eighty per cent or more of the land that is eligible to be irrigated under section 45-437, subsection B in the irrigation non-

expansion area, each of the entities may withdraw groundwater from the eligible land it owns for transportation to an initial active management area:

1. From a depth to one thousand feet at the site or sites of withdrawals.
2. From a depth between one thousand and one thousand two hundred feet at the site or sites of the withdrawals only if the director determines either that the withdrawals will not unreasonably increase damage to residents of surrounding land or that one or more of the entities withdrawing the groundwater will mitigate the damage to the residents.

45-555. Transportation of groundwater withdrawn in Big Chino sub-basin of the Verde River groundwater basin to initial active management area; exception; definitions

A. A city or town that owns land consisting of historically irrigated acres in the Big Chino sub-basin of the Verde River groundwater basin, as designated by order of the director dated June 21, 1984, or a city or town with the consent of the landowner, may withdraw from the land for transportation to an adjacent initial active management area an amount of groundwater determined pursuant to this section. The amount of groundwater that may be withdrawn from the land pursuant to this section shall not exceed:

1. In any year two times the annual transportation allotment for the land determined pursuant to subsection B of this section.
2. For any period of ten consecutive years computed in continuing progressive series beginning in the year transportation of groundwater from the land begins, ten times the annual transportation allotment for the land.

B. The director shall determine the annual transportation allotment as follows:

1. Determine each farm or portion of a farm owned or leased by the city or town in the sub-basin.
2. For each such farm or portion of a farm, determine the historically irrigated acres retired from irrigation. Multiply the sum of those historically irrigated acres by three acre-feet per acre.

C. In making the determination required by subsection B of this section, the director shall rely only on credible documentary evidence submitted by the city or town or otherwise obtained by the department.

D. For purposes of this section:

1. "Documentary evidence" means correspondence, contracts, other agreements, aerial photography, affidavits, receipts or official records.
2. "Farm" means an area of land in the sub-basin that is or was served by a common irrigation water distribution system.

3. "Historically irrigated acres" means acres of land overlying an aquifer that were irrigated with groundwater at any time between January 1, 1975 and January 1, 1990.

E. This article does not apply to the withdrawal and transportation of up to fourteen thousand acre-feet per year of groundwater by the city of Prescott, or the United States in cooperation with the city of Prescott, from the Big Chino sub-basin of the Verde River groundwater basin if the groundwater is withdrawn and transported either:

1. In exchange for or replacement or substitution of supplies of water from the central Arizona project allocated to Indian tribes, cities, towns or private water companies in the Prescott active management area or in the Verde River groundwater basin.
2. For the purpose of directly or indirectly facilitating the settlement of the water rights claims of the Yavapai-Prescott Indian tribe and the Camp Verde Yavapai-Apache Indian community.

45-562. Management goals for active management areas

A. The management goal of the Tucson, Phoenix and Prescott active management areas is safe-yield by January 1, 2025, or such earlier date as may be determined by the director.

B. The management goal of the Pinal active management area is to allow development of non-irrigation uses as provided in this chapter and to preserve existing agricultural economies in the active management area for as long as feasible, consistent with the necessity to preserve future water supplies for non-irrigation uses.

C. The management goal of the Santa Cruz active management area is to maintain a safe-yield condition in the active management area and to prevent local water tables from experiencing long-term declines.

D. Except as otherwise provided for the Santa Cruz active management area, all initial active management areas are subject to all provisions of this chapter.

45-563. Management plans in active management areas; management periods; general provisions

A. The director shall develop a management plan for each initial active management area for each of five management periods pursuant to the guidelines prescribed in sections 45-564 through 45-568 and shall adopt the plans only after public hearings held pursuant to sections 45-570 and 45-571. The plans shall include a continuing mandatory conservation program for all persons withdrawing, distributing or receiving groundwater designed to achieve reductions in withdrawals of groundwater.

B. The director shall develop a management plan for the Santa Cruz active management area for the third, fourth and fifth management periods pursuant to the guidelines prescribed in sections 45-566, 45-566.01, 45-567, 45-567.01, 45-568 and 45-568.01 and shall adopt the plans only after public hearings held pursuant to sections 45-570 and 45-571. The plans shall include a continuing mandatory conservation program designed to achieve the management goal of the active management area for all persons withdrawing water, other than stored water, from a well and all persons distributing or receiving water, other than stored water, from a well. The plans

shall also include criteria for the location of new wells and replacement wells in new locations consistent with the management goal of the active management area.

45-563.02. Exemption from irrigation water duties; small irrigation grandfathered rights; criteria; conservation requirement; exception

A. A person who is entitled to use groundwater pursuant to an irrigation grandfathered right is exempt from any irrigation water duties or intermediate water duties established for the farm to which the right is appurtenant under sections 45-564, 45-565, 45-566, 45-567 and 45-568 if both of the following apply:

1. There are ten or fewer irrigation acres in the farm.
2. The farm is not part of an integrated farming operation.

B. The director shall not establish irrigation water duties or intermediate water duties under section 45-566, 45-567 or 45-568 for a farm to which both of the following apply:

1. There are ten or fewer irrigation acres in the farm.
2. The farm is not part of an integrated farming operation.

C. Except as provided in subsection D of this section, a person who is exempt from the irrigation water duties established for a farm pursuant to subsection A of this section or who owns or uses groundwater on a farm for which irrigation water duties are prohibited in subsection B of this section shall not allow any groundwater to flow off the surface of the farm's irrigation acres unless the groundwater is used for a reasonable and beneficial use approved in writing by the director.

D. A person who is required under subsection C of this section to prevent groundwater from flowing off the surface of a farm's irrigation acres may apply to the director for an exemption from the requirement. The director may grant the exemption if the person demonstrates to the satisfaction of the director that one of the following applies:

1. Preventing groundwater from flowing off the surface of the farm's irrigation acres would not be economically feasible.
2. Any groundwater that will flow off the surface of the farm's irrigation acres will be used by a person with an exempt well in lieu of groundwater that otherwise would have been withdrawn from that well.

45-564. Management plan for first management period; guidelines

A. For the first management period, 1980 to 1990, the director shall promulgate management plans for the Phoenix, Tucson and Prescott active management areas not later than January 1, 1983 and for the Pinal active management area not later than July 1, 1985. In each plan, the director shall establish:

1. An irrigation water duty for each farm unit in the active management area. The irrigation water duty shall be calculated as the quantity of water reasonably required to irrigate the

crops historically grown in a farm unit and shall assume conservation methods being used in the state which would be reasonable for the farm unit including lined ditches, pump-back systems, land leveling and efficient application practices, but not including a change from flood irrigation to drip irrigation or sprinkler irrigation.

2. A conservation program for all non-irrigation uses of groundwater. For municipal uses, the program shall require reasonable reductions in per capita use and such other conservation measures as may be appropriate for individual users. For industrial uses including industrial uses within the exterior boundaries of the service area of a city, town, private water company or irrigation district, the program shall require use of the latest commercially available conservation technology consistent with reasonable economic return.

3. Economically reasonable conservation requirements for the distribution of groundwater by cities, towns, private water companies and irrigation districts within their service areas.

B. Within thirty days after the management plan for the first management period is adopted, the director shall give written notice of:

1. The irrigation water duty for the farm unit to each person in the farm unit who is entitled to withdraw or receive groundwater pursuant to an irrigation grandfathered right and to each person distributing groundwater pursuant to an irrigation grandfathered right.

2. The municipal conservation requirements included in the management plan for reductions in per capita use and for the use of appropriate conservation measures by individual users to each person who is entitled to withdraw or distribute groundwater for municipal use in the active management area.

3. The industrial conservation requirements included in the management plan for each person who is entitled to withdraw or receive groundwater for an industrial use in the active management area.

4. The conservation requirements included in the management plan for the distribution of groundwater by cities, towns, private water companies and irrigation districts within their service areas to each city, town, private water company and irrigation district in the active management area.

C. Except as provided in section 45-411.01, subsections A and B and except for a person who obtains a variance under section 45-574, and except as provided in subsection D of this section, all persons notified pursuant to subsection B of this section shall comply with the applicable irrigation water duty or conservation requirements within two years from the date of the notice and shall remain in compliance until the compliance date for any applicable irrigation water duty or conservation requirements established in the management plan for the second management period. A person who obtains a variance under section 45-574 shall comply with the applicable irrigation water duty or conservation requirements by the date specified in the variance and shall remain in compliance until the compliance date for any applicable irrigation water duty or conservation requirements established in the management plan for the second management period.

D. A municipal provider which distributes groundwater to an individual user for which an intermediate municipal conservation requirement has been established pursuant to section 45-565, subsection D is not responsible or accountable pursuant to the first management plan for a failure by the individual user to comply with the intermediate conservation requirement occurring on or after the compliance date for the intermediate conservation requirement.

E. In addition to the provisions of the management plan for the first management period prescribed by subsection A of this section, the director may include a program for the augmentation of the water supply of the Tucson active management area including incentives for artificial groundwater recharge.

45-570. Hearing on management plans; notice; procedures

A. The director shall hold a public hearing on each proposed management plan in each active management area prior to final adoption of the management plan.

B. The director shall give notice of the hearing within thirty days after the proposed management plan is completed. The notice shall include a summary of the management plan, a map or a description of the boundaries of the active management area, and the time and place of the hearing. The notice shall be published once each week for two consecutive weeks in a newspaper of general circulation in each county in which the active management area is located.

C. The hearing shall be held at a location within the active management area as soon as practicable but no less than thirty days and no more than sixty days after the first publication of the notice of the hearing.

D. At the hearing, the director shall present data in support of the adoption of the proposed management plan and a summary of the comments on the draft management plan made to the director by the groundwater users advisory council pursuant to section 45-421, paragraph 1. Any person may appear at the hearing either in person or by representative and submit oral or documentary evidence for or against the adoption of the management plan.

45-576. Certificate of assured water supply; designated cities, towns and private water companies; exemptions; definition

A. A person who proposes to offer subdivided lands, as defined in section 32-2101, for sale or lease in an active management area shall apply for and obtain a certificate of assured water supply from the director prior to presenting the plat for approval to the city, town or county in which the land is located, where such is required, and prior to filing with the state real estate commissioner a notice of intention to offer such lands for sale or lease, pursuant to section 32-2181, unless the subdivider has obtained a written commitment of water service for the subdivision from a city, town or private water company designated as having an assured water supply pursuant to this section.

B. A city, town or county may approve a subdivision plat only if the subdivider has obtained a certificate of assured water supply from the director or the subdivider has obtained a written commitment of water service for the subdivision from a city, town or private water company designated as having an assured water supply pursuant to this section. The city, town or county shall note on the face of the approved plat that a certificate of assured water supply has been submitted with the plat or that the subdivider has obtained a written commitment of water service

for the proposed subdivision from a city, town or private water company designated as having an assured water supply pursuant to this section.

C. The state real estate commissioner may issue a public report authorizing the sale or lease of subdivided lands only if the subdivider, owner or agent has obtained a certificate of assured water supply from the director and has paid any replenishment reserve fee required under section 48-3774.01, subsection A, paragraph 2 or if the subdivider has obtained a written commitment of water service for the lands from a city, town or private water company designated as having an assured water supply pursuant to this section.

D. The director shall designate private water companies in active management areas that have an assured water supply. If a city or town acquires a private water company that has contracted for central Arizona project water, the city or town shall assume the private water company's contract for central Arizona project water.

E. The director shall designate cities and towns in active management areas where an assured water supply exists. If a city or town has entered into a contract for central Arizona project water, the city or town is deemed to continue to have an assured water supply until December 31, 1997. Commencing on January 1, 1998, the determination that the city or town has an assured water supply is subject to review by the director and the director may determine that a city or town does not have an assured water supply.

F. The director shall notify the mayors of all cities and towns in active management areas and the chairmen of the boards of supervisors of counties in which active management areas are located of the cities, towns and private water companies designated as having an assured water supply and any modification of that designation within thirty days of the designation or modification. If the service area of that city, town or private water company has qualified as a member service area of a conservation district pursuant to title 48, chapter 22, article 4, the director shall also notify the conservation district of the designation or modification and shall report the projected annual replenishment obligation for the member service area based on the projected and committed annual demand for water within the service area during the effective term of the designation or modification subject to any limitation in an agreement between the conservation district and the city, town or private water company. Persons proposing to offer subdivided lands served by those designated cities, towns and private water companies for sale or lease are exempt from applying for and obtaining a certificate of assured water supply.

G. This section does not apply in the case of the sale of lands for developments that are subject to a mineral extraction and processing permit or an industrial use permit pursuant to sections 45-514 and 45-515.

H. The director shall adopt rules to carry out the purposes of this section no later than January 1, 1995.

I. For purposes of this section, "assured water supply" means all of the following:

1. Sufficient groundwater, surface water or effluent of adequate quality will be continuously available to satisfy the water needs of the proposed use for at least one hundred years. Beginning January 1 of the calendar year following the year in which a groundwater

replenishment district is required to submit its preliminary plan pursuant to section 45-576.02, subsection A, paragraph 1, with respect to an applicant that is a member of the district, "sufficient groundwater" for purposes of this paragraph means that the proposed groundwater withdrawals that the applicant will cause over a period of one hundred years will be of adequate quality and will not exceed, in combination with other withdrawals from land in the replenishment district, a depth to water of one thousand feet or the depth of the bottom of the aquifer, whichever is less. In determining depth to water for the purposes of this paragraph, the director shall consider the combination of:

- (a) The existing rate of decline.
- (b) The proposed withdrawals.
- (c) The expected water requirements of all recorded lots that are not yet served water and that are located in the service area of a municipal provider.

2. The projected groundwater use is consistent with the management plan and achievement of the management goal for the active management area.

3. The financial capability has been demonstrated to construct the water facilities necessary to make the supply of water available for the proposed use, including a delivery system and any storage facilities or treatment works. The director may accept evidence of the construction assurances required by section 9-463.01, 11-806.01 or 32-2181 to satisfy this requirement.

45-811.01. Underground storage facility permit

A. A person may apply to the director for a constructed underground storage facility permit or a managed underground storage facility permit and may operate an underground storage facility only pursuant to a permit.

B. A person applying to the director for a managed underground storage facility permit may request to have the facility designated as a facility that could add value to a national park, national monument or state park if that park or monument includes any portion of a natural channel of a stream or adjacent floodplain that would benefit from the facility.

C. The director may issue a permit to operate an underground storage facility if the director determines that all of the following apply:

1. The applicant has the technical and financial capability to construct and operate the facility.
2. Storage of the maximum amount of water that could be in storage at any one time at the facility is hydrologically feasible.
3. Storage at the facility will not cause unreasonable harm to land or other water users within the maximum area of impact of the maximum amount of water that could be in storage at any one time at the underground storage facility over the duration of the permit.

4. The applicant has agreed in writing to obtain any required floodplain use permit from the county flood control district before beginning any construction activities.

5. The director of environmental quality has determined that the facility is not in a location that will promote either the migration of a contaminant plume or the migration of a poor quality groundwater area so as to cause unreasonable harm or is not in a location that will result in pollutants being leached to the groundwater table so as to cause unreasonable harm, if the proposed water storage at the underground storage facility is exempt from the requirement for an aquifer protection permit under section 49-250, subsection B, paragraph 12, 13 or 24. For any facility exempt under section 49-250, subsection B, paragraph 24, the director of water resources, after consultation with the director of the department of environmental quality, may include in the permit any requirements, including operation, maintenance, monitoring, record keeping, reporting, contingency plan or remedial action requirements, as the director of water resources deems necessary.

D. The director may designate a managed underground storage facility as one that could add value to a national park, national monument or state park if the director finds that all of the following apply:

1. The applicant has agreed in writing to maintain a quantified, minimum base flow and annual discharge to the stream for the duration of the permit.

2. The project will benefit the groundwater basin as a whole.

45-812.01. Groundwater savings facility permit

A. A person may apply to the director for a groundwater savings facility permit and may operate a groundwater savings facility only pursuant to a permit.

B. The director may issue a permit to operate a groundwater savings facility if the director determines that all of the following apply:

1. Operation of the facility will cause the direct reduction or elimination of groundwater withdrawals in an active management area or an irrigation non-expansion area by means of delivery of water other than groundwater pumped from within that active management area or irrigation non-expansion area that the recipient will use in lieu of groundwater that the recipient would otherwise have used.

2. The applicant will deliver water other than groundwater pumped from within the active management area or irrigation non-expansion area in which the groundwater savings facility is located to an identified groundwater user who will use and agrees in writing to use the water delivered to the facility on a gallon-for-gallon substitute basis directly in lieu of groundwater that otherwise would have been pumped from within the active management area or irrigation non-expansion area.

3. The in lieu water is the only reasonably available source of water for the recipient other than groundwater pumped from within the same active management area or irrigation non-expansion area in which the groundwater savings facility is located.

4. The water delivered as in lieu water would not have been a reasonable alternative source of water for the recipient except through the operation of the groundwater savings facility.

5. The water delivered to the recipient as in lieu water was not delivered before October 1, 1990.

6. The applicant has submitted a plan satisfactory to the director that describes how the applicant will prove the quantity of groundwater saved at the facility each year and what evidence will be submitted with the applicant's annual report as required by section 45-875.01 to prove the groundwater savings. The plan may rely on the following factors:

(a) The recipient's cost of pumping groundwater relative to the cost of in lieu water and alternative sources of water available to the recipient.

(b) The historic quantity of groundwater pumped by the recipient at the location of the intended use of the in lieu water.

(c) The recipient's anticipated demand for groundwater and anticipated total demand for water, including groundwater.

(d) The recipient's legal right to withdraw or use groundwater pursuant to chapter 2 of this title.

(e) The amount of central Arizona project water for which the recipient anticipates accepting delivery.

(f) The historic amount of power used to pump groundwater at the groundwater savings facility compared to the power used during a year in which the recipient received in lieu water.

(g) The factors that prevent the recipient from using the water delivered as in lieu water without the operation of the groundwater savings facility.

(h) Any other criteria the director may deem to be relevant.

45-831.01. Water storage permits

A. A person may apply to the director for a water storage permit and may store water at a storage facility only pursuant to a water storage permit.

B. The director may issue a water storage permit to store water at a storage facility if the director determines that all of the following apply:

1. The applicant has a right to use the proposed source of water. Any determination made by the director for purposes of this subsection regarding the validity, nature, extent or relative priority of a water right claimed by the applicant or another person is not binding in any other administration proceeding or in any judicial proceeding.

2. The applicant has applied for any water quality permit required by the department of environmental quality under title 49, chapter 2, article 3 and by federal law.

3. The water storage will occur at a permitted storage facility.

C. In addition to the requirements of subsection B of this section, if the applicant has applied for a water storage permit to store water at a groundwater savings facility, the director shall not issue the water storage permit unless the applicant has agreed in writing to comply with the plan by which the quantity of groundwater saved at the facility will be proved each year.

D. If the director issues a water storage permit, the director may make, if possible, the following determinations:

1. Whether the water to be stored is water that cannot reasonably be used directly by the applicant and otherwise meets the requirements of section 45-852.01 for long-term storage credits.

2. If use of the water to be stored is appurtenant to a particular location, and if so, where the water may be legally used after recovery. Any determination made by the director for purposes of this subsection regarding the validity, nature, extent or relative priority of a water right claimed by the applicant or another person is not binding in any other administrative proceeding or in any judicial proceeding.

E. The director may issue a water storage permit for a period of not more than fifty years, except that:

1. On request of the holder of the permit, the director may renew the permit if the director determines that the requirements of subsection B of this section apply and, if the requirement of subsection C of this section applied at the time of issuance, that the requirement of subsection C of this section applies at the time of renewal.

2. Subject to the provisions of this chapter, the holder of long-term storage credits earned pursuant to the permit may recover the water over a period longer than the duration of the permit.

F. The holder of a water storage permit may apply to the director for approval to convey the permit to another person. The director may approve the conveyance if the director determines that the person to whom the permit is to be conveyed and the water storage will continue to meet the applicable requirements of this section. If long-term storage credits accrued pursuant to the water storage permit are being assigned pursuant to section 45-854.01 with the water storage permit, the director shall be given notice of the impending assignment of long-term storage credits at the time the holder of the water storage permit applies to convey the permit.

G. A person who holds a water storage permit may apply to the director on a form approved by the director for a modification of that water storage permit. The director may modify the permit within twenty days of receiving the application without complying with section 45-871.01 if all of the following apply:

1. The holder of the storage facility permit with which the water storage permit is affiliated has consented to the modification.
2. The modification to the water storage permit does not require a modification of the affiliated water storage facility permit.
3. The only modification requested is to add an amount of Colorado river water as a type of water to be stored under the water storage permit.
4. Water storage of Colorado river water has previously been permitted at the affiliated storage facility.
5. The person requesting the modification has the right to use the Colorado river water.

H. A water storage permit shall include the following information:

1. The name and mailing address of the person to whom the permit is issued.
2. The storage facility where the water storage will occur and the name of the active management area, irrigation non-expansion area, groundwater basin or groundwater sub-basin, as applicable, in which that facility is located.
3. The maximum annual amount of water that may be stored.
4. If the applicable finding of subsection D of this section has been made, whether the water to be stored is water that cannot reasonably be used directly by the applicant.
5. If the applicable finding of subsection D of this section has been made, any restrictions on where the water to be stored may legally be used.
6. Other conditions consistent with this chapter.
7. The duration of the permit.

I. If the water storage will occur at a groundwater savings facility, the water storage permit shall include, in addition to the information required by subsection H of this section, the requirements of the plan by which the quantity of groundwater saved at the storage facility will be proved each year.

J. If the director of the department of water resources decides to issue a water storage permit and the applicant has not received a water quality permit required by the department of environmental quality under title 49, chapter 2, article 3 and by federal law, the director of the department of water resources shall make receipt of the water quality permit a condition of the water storage permit and the holder of the water storage permit shall not store water until receiving the water quality permit.

45-832.01. Use of stored water

A. Water that has been stored pursuant to a water storage permit may be used or exchanged only in the manner in which it was permissible to use or exchange the water before it was stored.

B. Water that has been stored pursuant to a water storage permit may be used only in the location in which it was permissible to use the water before it was stored.

C. Water that has been stored pursuant to a water storage permit may be used for replenishment purposes only in the active management area in which the water is stored, unless the water is recovered and transported to another active management area.

D. Stored water may be used only as follows:

1. The water may be recovered by the storer and used on an annual basis in accordance with section 45-851.01.

2. The water may be credited to the storer's long-term storage account, if the water meets the requirements of section 45-852.01, and the long-term storage credits may be used in accordance with the provisions of this chapter.

3. A district that is storing water may have the stored water credited to its master replenishment account, if the water would meet the requirements of long-term storage credits as prescribed by section 45-852.01.

4. A conservation district that is storing water may have the stored water credited to its conservation district account, if the water would meet the requirements of long-term storage credits as prescribed by section 45-852.01.

5. A water district that is storing water may have the stored water credited to its water district account, if the water would meet the requirements of long-term storage credits as prescribed by section 45-852.01.

CALIFORNIA

CALIFORNIA CONSTITUTION

ARTICLE 10 WATER

http://www.leginfo.ca.gov/.const/.article_10

Section 2.

It is hereby declared that because of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare. The right to water or to the use or flow of water in or from any natural stream or water course in this State is and shall be limited to such water as shall be reasonably required for the beneficial use to be served, and such right does not and shall not extend to the waste or unreasonable use or unreasonable method of use or unreasonable method of diversion of water. Riparian rights in a stream or water course attach to, but to no more than so much of the flow thereof as may be required or used consistently with this section, for the purposes for which such lands are, or may be made adaptable, in view of such reasonable and beneficial uses; provided, however, that nothing herein contained shall be construed as depriving any riparian owner of the reasonable use of water of the stream to which the owner's land is riparian under reasonable methods of diversion and use, or as depriving any appropriator of water to which the appropriator is lawfully entitled. This section shall be self-executing, and the Legislature may also enact laws in the furtherance of the policy in this section contained.

Section 5.

The use of all water now appropriated, or that may hereafter be appropriated, for sale, rental, or distribution, is hereby declared to be a public use, and subject to the regulation and control of the State, in the manner to be prescribed by law.

CALIFORNIA STATUTES

CALIFORNIA WATER CODE

<http://www.leginfo.ca.gov/cgi-bin/calawquery?codesection=wat&codebody=&hits=20>

Division 6. Conservation, Development, And Utilization of State Water Resources

Part 2.75. Groundwater Management

Chapter 1. General Provisions

10750.

(a) The Legislature finds and declares that groundwater is a valuable natural resource in California, and should be managed to ensure both its safe production and its quality. It is the intent of the Legislature to encourage local agencies to work cooperatively to manage groundwater resources within their jurisdictions.

(b) The Legislature also finds and declares that additional study of groundwater resources is necessary to better understand how to manage groundwater effectively to ensure the safe production, quality, and proper storage of groundwater in this state.

10750.2.

(a) Subject to subdivision (b), this part applies to all groundwater basins in the state.

(b) This part does not apply to any portion of a groundwater basin that is subject to groundwater management by a local agency or a watermaster pursuant to other provisions of law or a court order, judgment, or decree, unless the local agency or watermaster agrees to the application of this part.

10750.4.

Nothing in this part requires a local agency overlying a groundwater basin to adopt or implement a groundwater management plan or groundwater management program pursuant to this part.

10750.6.

Nothing in this part affects the authority of a local agency or a watermaster to manage groundwater pursuant to other provisions of law or a court order, judgment, or decree.

10750.7.

(a) A local agency may not manage groundwater pursuant to this part within the service area of another local agency, a water corporation regulated by the Public Utilities Commission, or a mutual water company without the agreement of that other entity.

(b) This section applies only to groundwater basins that are not critically overdrafted.

10750.8.

(a) A local agency may not manage groundwater pursuant to this part within the service area of another local agency without the agreement of that other entity.

(b) This section applies only to groundwater basins that are critically overdrafted.

10750.9.

(a) A local agency that commences procedures, prior to January 1, 1993, to adopt an ordinance or resolution to establish a program for the management of groundwater pursuant to Part 2.75 (commencing with Section 10750), as added by Chapter 903 of the Statutes of 1991, may proceed to adopt the ordinance or resolution pursuant to Part 2.75, and the completion of those procedures is deemed to meet the requirements of this part.

(b) A local agency that has adopted an ordinance or resolution pursuant to Part 2.75 (commencing with Section 10750), as added by Chapter 903 of the Statutes of 1991, may amend its groundwater management program by ordinance or resolution of the governing body of the local agency to include any of the plan components set forth in Section 10753.7.

10750.10.

This part is in addition to, and not a limitation on, the authority granted to a local agency pursuant to other provisions of law.

CHAPTER 2. DEFINITIONS

10752.

Unless the context otherwise requires, the following definitions govern the construction of this part:

(a) "Groundwater" means all water beneath the surface of the earth within the zone below the water table in which the soil is completely saturated with water, but does not include water which flows in known and definite channels.

(b) "Groundwater basin" means any basin identified in the department's Bulletin No. 118, dated September 1975, and any amendments to that bulletin, but does not include a basin in which the average well yield, excluding domestic wells that supply water to a single-unit dwelling, is less than 100 gallons per minute.

(c) "Groundwater extraction facility" means any device or method for the extraction of groundwater within a groundwater basin.

(d) "Groundwater management plan" or "plan" means a document that describes the activities intended to be included in a groundwater management program.

(e) "Groundwater management program" or "program" means a coordinated and ongoing activity undertaken for the benefit of a groundwater basin, or a portion of a groundwater basin, pursuant to a groundwater management plan adopted pursuant to this part.

(f) "Groundwater recharge" means the augmentation of groundwater, by natural or artificial means, with surface water or recycled water.

(g) "Local agency" means any local public agency that provides water service to all or a portion of its service area, and includes a joint powers authority formed by local public agencies that provide water service.

(h) "Recharge area" means the area that supplies water to an aquifer in a groundwater basin and includes multiple wellhead protection areas.

(i) "Watermaster" means a watermaster appointed by a court or pursuant to other provisions of law.

(j) "Wellhead protection area" means the surface and subsurface area surrounding a water well or well field that supplies a public water system through which contaminants are reasonably likely to migrate toward the water well or well field.

CHAPTER 3. GROUNDWATER MANAGEMENT PLANS

10753.

(a) Any local agency, whose service area includes a groundwater basin, or a portion of a groundwater basin, that is not subject to groundwater management pursuant to other provisions of law or a court order, judgment, or decree, may, by ordinance, or by resolution if the local agency is not authorized to act by ordinance, adopt and implement a groundwater management plan pursuant to this part within all or a portion of its service area.

(b) Notwithstanding subdivision (a), a local public agency, other than an agency defined in subdivision (g) of Section 10752, that provides flood control, groundwater management, or groundwater replenishment, or a local agency formed pursuant to this code for the principal purpose of providing water service that has not yet provided that service, may exercise the authority of this part within a groundwater basin that is located within its boundaries within areas that are either of the following:

(1) Not served by a local agency.

(2) Served by a local agency whose governing body, by a majority vote, declines to exercise the authority of this part and enters into an agreement with the local public agency pursuant to Section 10750.7 or 10750.8.

10753.1.

Nothing in this part, or in any groundwater management plan adopted pursuant to this part, affects surface water rights or the procedures under common law or local groundwater authority, or any provision of law other than this part that determines or grants surface water rights.

10753.2.

(a) Prior to adopting a resolution of intention to draft a groundwater management plan, a local agency shall hold a hearing, after publication of notice pursuant to Section 6066 of the Government Code, on whether or not to adopt a resolution of intention to draft a groundwater management plan pursuant to this part for the purposes of implementing the plan and establishing a groundwater management program.

(b) At the conclusion of the hearing, the local agency may draft a resolution of intention to adopt a groundwater management plan pursuant to this part for the purposes of implementing the plan and establishing a groundwater management program.

10753.3.

(a) After the conclusion of the hearing, and if the local agency adopts a resolution of intention, the local agency shall publish the resolution of intention in the same manner that notice for the hearing held under Section 10753.2 was published.

(b) Upon written request, the local agency shall provide any interested person with a copy of the resolution of intention.

10753.4.

(a) The local agency shall prepare a groundwater management plan within two years of the date of the adoption of the resolution of intention. If the plan is not adopted within two

years, the resolution of intention expires, and no plan may be adopted except pursuant to a new resolution of intention adopted in accordance with this chapter.

(b) For the purposes of carrying out this part, the local agency shall make available to the public a written statement describing the manner in which interested parties may participate in developing the groundwater management plan. The local agency may appoint, and consult with, a technical advisory committee consisting of interested parties for the purposes of carrying out this part.

10753.5.

(a) After a groundwater management plan is prepared, the local agency shall hold a second hearing to determine whether to adopt the plan. Notice of the hearing shall be given pursuant to Section 6066 of the Government Code. The notice shall include a summary of the plan and shall state that copies of the plan may be obtained for the cost of reproduction at the office of the local agency.

(b) At the second hearing, the local agency shall consider protests to the adoption of the plan. At any time prior to the conclusion of the second hearing, any landowner within the local agency may file a written protest or withdraw a protest previously filed.

10753.6.

(a) A written protest filed by a landowner shall include the landowner's signature and a description of the land owned sufficient to identify the land. A public agency owning land is deemed to be a landowner for the purpose of making a written protest.

(b) The secretary of the local agency shall compare the names and property descriptions on the protest against the property ownership records of the county assessors.

(c) (1) A majority protest shall be determined to exist if the governing board of the local agency finds that the protests filed and not withdrawn prior to the conclusion of the second hearing represent more than 50 percent of the assessed value of the land within the local agency subject to groundwater management pursuant to this part.

(2) If the local agency determines that a majority protest exists, the groundwater plan may not be adopted and the local agency shall not consider adopting a plan for the area proposed to be included within the program for a period of one year after the date of the second hearing.

(3) If a majority protest has not been filed, the local agency, within 35 days after the conclusion of the second hearing, may adopt the groundwater management plan.

10753.7.

(a) For the purposes of qualifying as a groundwater management plan under this part, a plan shall contain the components that are set forth in this section. In addition to the requirements of a specific funding program, any local agency seeking state funds administered by the department for the construction of groundwater projects or groundwater quality projects, excluding programs that are funded under Part 2.78 (commencing with Section 10795), shall do all of the following:

(1) Prepare and implement a groundwater management plan that includes basin management objectives for the groundwater basin that is subject to the plan. The plan shall include components relating to the monitoring and management of groundwater levels within the groundwater basin, groundwater quality degradation, inelastic land surface subsidence, and changes in surface flow and surface water quality that directly affect groundwater levels or quality or are caused by groundwater pumping in the basin.

(2) For the purposes of carrying out paragraph (1), the local agency shall prepare a plan to involve other agencies that enables the local agency to work cooperatively with other public entities whose service area or boundary overlies the groundwater basin.

(3) For the purposes of carrying out paragraph (1), the local agency shall prepare a map that details the area of the groundwater basin, as defined in the department's Bulletin No. 118, and the area of the local agency, that will be subject to the plan, as well as the boundaries of other local agencies that overlie the basin in which the agency is developing a groundwater management plan.

(4) The local agency shall adopt monitoring protocols that are designed to detect changes in groundwater levels, groundwater quality, inelastic surface subsidence for basins for which subsidence has been identified as a potential problem, and flow and quality of surface water that directly affect groundwater levels or quality or are caused by groundwater pumping in the basin. The monitoring protocols shall be designed to generate information that promotes efficient and effective groundwater management.

(5) Local agencies that are located in areas outside the groundwater basins delineated on the latest edition of the department's groundwater basin and subbasin map shall prepare groundwater management plans incorporating the components in this subdivision, and shall use geologic and hydrologic principles appropriate to those areas.

(b) (1) (A) A local agency may receive state funds administered by the department for the construction of groundwater projects or for other projects that directly affect groundwater levels or quality if it prepares and implements, participates in, or consents to be subject to, a groundwater management plan, a basin wide management plan, or other integrated regional water management program or plan that meets, or is in the process of meeting, the requirements of subdivision (a). A local agency with an existing groundwater management plan that meets the requirements of subdivision (a), or a local agency that completes an upgrade of its plan to meet the requirements of subdivision (a) within one year of applying for funds, shall be given priority consideration for state funds administered by the department over local agencies that are in the process of developing a groundwater management plan. The department shall withhold funds from the project until the upgrade of the groundwater management plan is complete.

(B) Notwithstanding subparagraph (A), a local agency that manages groundwater under any other provision of existing law that meets the requirements of subdivision (a), or that completes an upgrade of its plan to meet the requirements of subdivision (a) within one year of applying for funding, shall be eligible for funding administered by the department. The department shall withhold funds from a project until the upgrade of the groundwater management plan is complete.

(C) Notwithstanding subparagraph (A), a local agency that conforms to the requirements of an adjudication of water rights in the groundwater basin is in compliance with subdivision (a). For purposes of this section, an "adjudication" includes an adjudication under Section 2101, an administrative adjudication, and an adjudication in state or federal court.

(D) Subparagraphs (A) and (B) do not apply to proposals for funding under Part 2.78 (commencing with Section 10795), or to funds authorized or appropriated prior to September 1, 2002.

(2) Upon the adoption of a groundwater management plan in accordance with this part, the local agency shall submit a copy of the plan to the department, in an electronic format, if practicable, approved by the department. The department shall make available to the public copies of the plan received pursuant to this part.

10753.8.

A groundwater management plan may include components relating to all of the following:

- (a) The control of saline water intrusion.
- (b) Identification and management of wellhead protection areas and recharge areas.
- (c) Regulation of the migration of contaminated groundwater.
- (d) The administration of a well abandonment and well destruction program.
- (e) Mitigation of conditions of overdraft.
- (f) Replenishment of groundwater extracted by water producers.
- (g) Monitoring of groundwater levels and storage.
- (h) Facilitating conjunctive use operations.
- (i) Identification of well construction policies.
- (j) The construction and operation by the local agency of groundwater contamination cleanup, recharge, storage, conservation, water recycling, and extraction projects.
- (k) The development of relationships with state and federal regulatory agencies.
- (l) The review of land use plans and coordination with land use planning agencies to assess activities which create a reasonable risk of groundwater contamination.

10753.9.

(a) A local agency shall adopt rules and regulations to implement and enforce a groundwater management plan adopted pursuant to this part.

(b) Nothing in this part shall be construed as authorizing the local agency to make a binding determination of the water rights of any person or entity.

(c) Nothing in this part shall be construed as authorizing the local agency to limit or suspend extractions unless the local agency has determined through study and investigation that groundwater replenishment programs or other alternative sources of water supply have proved insufficient or infeasible to lessen the demand for groundwater.

10753.10.

In adopting rules and regulations pursuant to Section 10753.9, the local agency shall consider the potential impact of those rules and regulations on business activities, including agricultural operations, and to the extent practicable and consistent with the protection of the groundwater resources, minimize any adverse impacts on those business activities.

CHAPTER 4. FINANCES

10754.

For purposes of groundwater management, a local agency that adopts a groundwater management plan pursuant to this part has the authority of a water replenishment district pursuant to Part 4 (commencing with Section 60220) of Division 18 and may fix and collect fees and assessments for groundwater management in accordance with Part 6 (commencing with Section 60300) of Division 18.

10754.2.

(a) Subject to Section 10754.3, except as specified in subdivision (b), a local agency that adopts a groundwater management plan pursuant to this part, may impose equitable annual fees and assessments for groundwater management based on the amount of groundwater extracted from the groundwater basin within the area included in the groundwater management plan to pay for costs incurred by the local agency for groundwater management, including, but not limited to, the costs associated with the acquisition of replenishment water, administrative and operating costs, and costs of construction of capital facilities necessary to implement the groundwater management plan.

(b) The local agency may not impose fees or assessments on the extraction and replacement of groundwater pursuant to a groundwater remediation program required by other provisions of law or a groundwater storage contract with the local agency.

10754.3.

Before a local agency may levy a water management assessment pursuant to Section 10754.2 or otherwise fix and collect fees for the replenishment or extraction of groundwater pursuant to this part, the local agency shall hold an election on the proposition of whether or not the local agency shall be authorized to levy a groundwater management assessment or fix and collect fees for the replenishment or extraction of groundwater. The local agency shall be so authorized if a majority of the votes cast at the election is in favor of the proposition. The election shall be conducted in the manner prescribed by the laws applicable to the local agency or, if there are no laws so applicable, then as prescribed by laws relating to local elections. The election shall be conducted only within the portion of the jurisdiction of the local agency subject to groundwater management pursuant to this part.

CHAPTER 5. MISCELLANEOUS

10755.

(a) If a local agency annexes land subject to a groundwater management plan adopted pursuant to this part, the local agency annexing the land shall comply with the groundwater management plan for the annexed property.

(b) If a local agency subject to a groundwater management plan adopted pursuant to this part annexes land not subject to a groundwater management plan adopted pursuant to this part at the time of annexation, the annexed territory shall be subject to the groundwater management plan of the local agency annexing the land.

10755.2.

(a) It is the intent of the Legislature to encourage local agencies, within the same groundwater basin, that are authorized to adopt groundwater management plans pursuant to this part, to adopt and implement a coordinated groundwater management plan.

(b) For the purpose of adopting and implementing a coordinated groundwater management program pursuant to this part, a local agency may enter into a joint powers agreement pursuant to Chapter 5 (commencing with Section 6500) of Division 7 of Title 1 of the Government Code with public agencies, or a memorandum of understanding with public or private entities providing water service.

(c) A local agency may enter into agreements with public entities or private parties for the purpose of implementing a coordinated groundwater management plan.

10755.3.

Local agencies within the same groundwater basin that conduct groundwater management programs within that basin pursuant to this part, and cities and counties that either manage groundwater pursuant to this part or have ordinances relating to groundwater within that basin, shall, at least annually, meet to coordinate those programs.

10755.4.

Except in those groundwater basins that are subject to critical conditions of groundwater overdraft, as identified in the department's Bulletin 118-80, revised on December 24, 1982, the requirements of a groundwater management plan that is implemented pursuant to this part do not apply to the extraction of groundwater by means of a groundwater extraction facility that is used to provide water for domestic purposes to a single-unit residence and, if applicable, any dwelling unit authorized to be constructed pursuant to Section 65852.1 or 65852.2 of the Government Code.

COLORADO

COLORADO CONSTITUTION

ARTICLE 16 MINING AND IRRIGATION

<http://198.187.128.12/colorado/lpext.dll?f=templates&fn=fs-main.htm&2.0>

Section 5. Water of streams public property.

The water of every natural stream, not heretofore appropriated, within the state of Colorado, is hereby declared to be the property of the public, and the same is dedicated to the use of the people of the state, subject to appropriation as hereinafter provided.

Section 6. Diverting unappropriated water - priority preferred uses.

The right to divert the unappropriated waters of any natural stream to beneficial uses shall never be denied. Priority of appropriation shall give the better right as between those using the water for the same purpose; but when the waters of any natural stream are not sufficient for the service of all those desiring the use of the same, those using the water for domestic purposes shall have the preference over those claiming for any other purpose, and those using the water for agricultural purposes shall have preference over those using the same for manufacturing purposes.

COLORADO STATUTES

TITLE 37 WATER AND IRRIGATION : WATER RIGHTS AND IRRIGATION ARTICLE 90 UNDERGROUND WATER

<http://198.187.128.12/colorado/lpext.dll?f=templates&fn=fs-main.htm&2.0>

37-90-102. Legislative declaration - repeal.

(1) It is declared that the traditional policy of the state of Colorado, requiring the water resources of this state to be devoted to beneficial use in reasonable amounts through appropriation, is affirmed with respect to the designated ground waters of this state, as said waters are defined in section 37-90-103 (6). While the doctrine of prior appropriation is recognized, such doctrine should be modified to permit the full economic development of designated ground water resources. Prior appropriations of ground water should be protected and reasonable ground water pumping levels maintained, but not to include the maintenance of historical water levels. All designated ground waters in this state are therefore declared to be subject to appropriation in the manner defined in this article.

(2) The general assembly finds and declares that the allocation of nontributary ground water pursuant to statute is based upon the best available evidence at this time. The general assembly recognizes the unique, finite nature of nontributary ground water resources outside of designated ground water basins and declares that such nontributary ground water shall be devoted to beneficial use in amounts based upon conservation of the resource and protection of vested water rights. Economic development of this resource shall allow for the reduction of hydrostatic pressure levels and aquifer water levels consistent with the protection of appropriative rights in the natural stream system. The doctrine of prior appropriation shall not apply to nontributary ground water. To continue the development of nontributary ground water resources consonant

with conservation shall be the policy of this state. Such water shall be allocated as provided in this article upon the basis of ownership of the overlying land. This policy is a reasonable exercise of the general assembly's plenary power over this resource.

(3) (a) The general assembly finds and declares that in water division 3, established pursuant to section 37-92-201 (1) (c), there exists a confined aquifer system underlying portions of the San Luis valley. The hydrologic system in water division 3 and, in particular, the hydrology and geology of the shallow aquifer and confined aquifer systems and their relationship to surface streams in water division 3 are unique and are among the most complex in the state. Unless properly augmented, new withdrawals of groundwater affecting the confined aquifer system can materially injure vested water rights and increase the burden of Colorado's scheduled deliveries under the Rio Grande compact. There is currently insufficient comprehensive data and knowledge of the relationship between the surface streams and the confined aquifer system to permit a full understanding of the effect of groundwater withdrawals, affecting the confined aquifer, upon the natural stream and aquifer systems in water division 3.

(b) This subsection (3) is repealed, effective July 1, 2003.

37-90-103. Definitions - repeal.

As used in this article, unless the context otherwise requires:

(1) "Alternate point of diversion well" means any well drilled and used, in addition to an original well or other diversion, for the purpose of obtaining the present appropriation of that original well, from more than one point of diversion.

(2) "Aquifer" means a formation, group of formations, or part of a formation containing sufficient saturated permeable material that could yield a sufficient quantity of water that may be extracted and applied to a beneficial use.

(3) "Artesian well" means a well tapping an aquifer in which the static water level in the well rises above where it was first encountered in the aquifer, due to hydrostatic pressure.

(4) "Board" or "board of directors" means the board of directors of a ground water management district as organized under section 37-90-124.

(5) "Colorado water conservation board" refers to the board created in section 37-60-102.

(6) (a) "Designated ground water" means that ground water which in its natural course would not be available to and required for the fulfillment of decreed surface rights, or ground water in areas not adjacent to a continuously flowing natural stream wherein ground water withdrawals have constituted the principal water usage for at least fifteen years preceding the date of the first hearing on the proposed designation of the basin, and which in both cases is within the geographic boundaries of a designated ground water basin. "Designated ground water" shall not include any ground water within the Dawson-Arkose, Denver, Arapahoe, or Laramie-Fox Hills formation located outside the boundaries of any designated ground water basin that was in existence on January 1, 1983.

(b) (I) However, "designated ground water" may include any ground water in the Crow Creek drainage area in Weld county, upstream from the confluence of Crow Creek and Little Crow Creek, within the Laramie-Fox Hills formation located outside such boundaries when the Laramie-Fox Hills formation is not overlaid by the Dawson-Arkose, Denver, or Arapahoe formations.

(II) If, upon receipt by the state engineer of the findings of the Laramie-Fox Hills study, as authorized by Senate Bill 250, 1985 legislative session, that the upper Crow Creek drainage area in Weld county, upstream from the confluence of Crow Creek and Little Crow Creek, within the Laramie-Fox Hills formation when the Laramie-Fox Hills formation is not overlaid by the Dawson-Arkose, Denver, or Arapahoe formations should not be a designated ground water basin, this paragraph (b) is repealed.

(7) "Designated ground water basin" means that area established by the ground water commission in accordance with section 37-90-106.

(8) "Ground water commission" or "commission" refers to the ground water commission created and provided for in section 37-90-104 to facilitate the functioning of this article.

(9) "Ground water management district" or "district" means any district organized under the provisions of this article.

(10) "Historical water level" means the average elevation of the ground water level in any area before being lowered by the activities of man, as nearly as can be determined from scientific investigation and available facts.

(10.5) "Nontributary ground water" means that ground water, located outside the boundaries of any designated ground water basins in existence on January 1, 1985, the withdrawal of which will not, within one hundred years, deplete the flow of a natural stream, including a natural stream as defined in sections 37-82-101 (2) and 37-92-102 (1) (b), at an annual rate greater than one-tenth of one percent of the annual rate of withdrawal. The determination of whether ground water is nontributary shall be based on aquifer conditions existing at the time of permit application; except that, in recognition of the de minimis amount of water discharging from the Dawson, Denver, Arapahoe, and Laramie-Fox Hills aquifers into surface streams due to artesian pressure, when compared with the great economic importance of the ground water in those aquifers, and the feasibility and requirement of full augmentation by wells located in the tributary portions of those aquifers, it is specifically found and declared that, in determining whether ground water of the Dawson, Denver, Arapahoe, and Laramie-Fox Hills aquifers is nontributary, it shall be assumed that the hydrostatic pressure level in each such aquifer has been lowered at least to the top of that aquifer throughout that aquifer; except that not nontributary ground water, as defined in subsection (10.7) of this section, in the Denver basin shall not become nontributary ground water as a result of the aquifer's hydrostatic pressure level dropping below the alluvium of an adjacent stream due to Denver basin well pumping activity. Nothing in this subsection (10.5) shall preclude the designation of any aquifer or basin, or any portion thereof, which is otherwise eligible for designation under the standard set forth in subsection (6) of this section relating to ground water in areas not adjacent to a continuously flowing natural stream wherein ground water withdrawals have constituted the principal water usage for at least fifteen years preceding the date of the first hearing on the proposed designation of a basin.

(10.7) "Not nontributary ground water" means ground water located within those portions of the Dawson, Denver, Arapahoe, and Laramie-Fox Hills aquifers that are outside the boundaries of any designated ground water basin in existence on January 1, 1985, the withdrawal of which will, within one hundred years, deplete the flow of a natural stream, including a natural stream as defined in sections 37-82-101 (2) and 37-92-102 (1) (b), at an annual rate of greater than one-tenth of one percent of the annual rate of withdrawal.

(11) "Person" means any individual, partnership, association, or corporation authorized to do business in the state of Colorado, or any political subdivision or public agency thereof, or any agency of the United States, making a beneficial use, or taking steps, or doing work preliminary to making a beneficial use of designated underground waters of Colorado.

(12) "Private driller" means any individual, corporation, partnership, association, political subdivision, or public agency which operates as lessee or owner its own well drilling rig and equipment and which digs, drills, redrills, cases, recases, deepens, or excavates a well upon the property of such entity.

(12.5) "Quarter-quarter" means a fourth of a fourth of a section of land and is equal to approximately forty acres.

(12.7) "Replacement plan" means a detailed program to increase the supply of water available for beneficial use in a designated ground water basin or portion thereof for the purpose of preventing material injury to other water rights by the development of new points of diversion, by pooling of water resources, by water exchange projects, by providing substitute supplies of water, by the development of new sources of water, or by any other appropriate means consistent with the rules adopted by the commission. "Replacement plan" does not include the salvage of designated ground water by the eradication of phreatophytes, nor does it include the use of precipitation water collected from land surfaces that have been made impermeable, thereby increasing the runoff, but not adding to the existing supply of water.

(13) "Replacement well" means a new well which replaces an existing well and which shall be limited to the yield of the original well and shall take the date of priority of the original well, which shall be abandoned upon completion of the new well.

(14) "Resident agriculturist" means a bona fide farmer or rancher residing in the designated ground water basin whose major source of income is derived from the production and sale of agricultural products.

(15) "State engineer" means the state engineer of Colorado or any person deputized by him in writing to perform a duty or exercise a right granted in this article.

(16) "Subdivision" means an area within a ground water basin.

(17) "Supplemental well" means any well drilled and used, in addition to an original well or other diversion, for the purpose of obtaining the quantity of the original appropriation of the original well, which quantity can no longer be obtained from the original well.

(18) "Taxpaying elector" means a person qualified to vote at general elections in Colorado, who owns real or personal property within the district and has paid ad valorem taxes thereon in the twenty months immediately preceding a designated time or event, which property is subject to taxation at the time of any election held under the provisions of this article or at any other time in reference to which the term "taxpaying elector" is used. A person who is obligated to pay taxes under a contract to purchase real property in the district shall be considered an owner. The ownership of any property subject to the payment of a specific ownership tax on a motor vehicle or trailer or of any other excise or property tax other than general ad valorem property taxes shall not constitute the ownership of property subject to taxation as provided in this article.

(19) "Underground water" and "ground water" are used interchangeably in this article and mean any water not visible on the surface of the ground under natural conditions.

(20) "Waste" means causing, suffering, or permitting any well to discharge water unnecessarily above or below the surface of the ground.

(21) (a) "Well" means any structure or device used for the purpose or with the effect of obtaining ground water for beneficial use from an aquifer.

(b) "Well" does not include a naturally flowing spring or springs where the natural spring discharge is captured or concentrated by installation of a near-surface structure or device less than ten feet in depth located at or within fifty feet of the spring or springs' natural discharge point and the water is conveyed directly by gravity flow or into a separate sump or storage, if the owner obtains a water right for such structure or device as a spring pursuant to article 92 of this title.

(22) "Well driller" means any individual, corporation, partnership, association, political subdivision, or public agency which digs, drills, cases, recases, deepens, or excavates a well either by contract or for hire or for any consideration whatsoever.

37-90-105. Small capacity wells.

(1) The state engineer has the authority to approve permits for the following types of wells in designated ground water basins without regard to any other provisions of this article:

(a) Wells not exceeding fifty gallons per minute and used for no more than three single-family dwellings, including the normal operations associated with such dwellings but not including the irrigation of more than one acre of land;

(b) Wells not exceeding fifty gallons per minute and used for watering of livestock on range and pasture;

(c) (I) One well not exceeding fifty gallons per minute and used in one commercial business.

(II) To qualify as a "commercial business" under this paragraph (c), the business shall be:

(A) A business that will be operated by the well owner and that will have its own books, bank accounts, checking accounts, and separate tax returns;

(B) A business that will use water solely on the land indicated in the permit for the well and for the purposes stated in such permit;

(C) A business that will maintain its individual assets and will own or lease the property on which the well is to be located or where the business is operated;

(D) A business that will have its own contractual agreements for operation of the business;

(E) A business that agrees not to transfer a permit issued under this paragraph (c) to another entity that also holds a small capacity commercial well permit under this paragraph (c); and

(F) A business that agrees to notify any potential buyer that such buyer shall notify the state engineer of any change in ownership of such business within sixty days after any such change in ownership.

(d) Wells to be used exclusively for monitoring and observation purposes if said wells are capped and locked and used only to monitor water levels or for water quality sampling; or

(e) Wells to be used exclusively for fire-fighting purposes if said wells are capped and locked and available for use only in fighting fires.

(2) The state engineer has the authority to adopt rules in accordance with section 24-4-103, C.R.S., to carry out the provisions of this section. Any party adversely affected or aggrieved by a rule adopted by the state engineer may seek judicial review of such action pursuant to section 24-4-106, C.R.S.

(3) (a) (I) Wells of the type described in this section may be constructed only upon the issuance of a permit in accordance with the provisions of this section. A fee of sixty dollars shall accompany any application for a new well permit under this section. A fee of twenty dollars shall accompany any application for a replacement well of the type described in subsection (1) of this section.

(II) Notwithstanding the amount specified for any fee in subparagraph (I) of this paragraph (a), the commission by rule or as otherwise provided by law may reduce the amount of one or more of the fees if necessary pursuant to section 24-75-402 (3), C.R.S., to reduce the uncommitted reserves of the fund to which all or any portion of one or more of the fees is credited. After the uncommitted reserves of the fund are sufficiently reduced, the commission by rule or as otherwise provided by law may increase the amount of one or more of the fees as provided in section 24-75-402 (4), C.R.S.

(b) Beginning on August 5, 1998, the state engineer shall not approve a permit for a small capacity well with an annual volume of use in excess of five acre-feet, unless the well is located in a ground water management district that has adopted rules that allow an annual volume in excess of five acre-feet. This limitation shall not apply to a replacement permit for a well where the original permit allows an annual volume of use in excess of five acre-feet or

to a permit for a well covered by the provisions of subsection (4) of this section where the actual annual volume of use was in excess of five acre-feet.

(c) If the application is made pursuant to this section for a well that will be located in a subdivision, as defined in section 30-28-101 (10), C.R.S., and approved on or after June 1, 1972, pursuant to article 28 of title 30, C.R.S., for which the water supply plan has not been recommended for approval by the state engineer, the cumulative effect of all such wells in the subdivision shall be considered in determining material injury, and the state engineer shall deny the application if it is determined that the proposed well will cause material injury to existing water rights.

(d) (I) If any person wishes to replace an existing well of the type described in subsection (1) of this section, such person shall file an application pursuant to this subsection (3) for the construction of a well and shall state in such application such person's intent to abandon the existing well that is to be replaced.

(II) If such a replacement well will not change the amount or type of use of water that can lawfully be made by means of the existing well, a permit to construct and use the replacement well shall be issued, and the existing well shall be abandoned within ninety days after the completion of the replacement well.

(e) Wells for which permits have been granted or may be granted shall be constructed within two years after the permit is issued, which time may be extended for successive years at the discretion of the state engineer for good cause shown.

(4) (a) Any wells of the type described by this section that were put to beneficial use prior to May 8, 1972, and any wells that were used exclusively for monitoring and observation purposes prior to August 1, 1988, not of record in the office of the state engineer, may be recorded in that office upon written application, payment of a processing fee of sixty dollars, and permit approval. The record shall include the date the water is claimed to have been first put to beneficial use.

(b) Any owner of an existing well that was constructed prior to May 8, 1972, or has a well permit issued prior to January 1, 1996, under the provisions of this section, and that was put to beneficial use for watering livestock in a confined animal-feeding operation prior to January 1, 1996, and has been used for that purpose, may apply by December 31, 1999, to obtain a new permit for that well up to the extent of its beneficial use prior to January 1, 1996, for watering livestock in that commercial business pursuant to paragraph (c) of subsection (1) of this section. Such well shall be in addition to the one commercial business well allowed in paragraph (c) of subsection (1) of this section. Such an application shall include a sixty dollar filing fee and shall provide documentation of the annual volume of water put to beneficial use from the well. The state engineer shall have the authority to determine the adequacy of the submitted information for the purpose of approving completely, approving in part, or denying the application. Permits issued after January 1, 1996, up to August 5, 1998, shall remain valid thereafter according to the terms and conditions of those permits.

(5) The state engineer shall act upon an application filed under this section within forty-five days after such filing and shall support the ruling with a written statement of the basis therefor.

(6) (a) Any person aggrieved by a decision of the state engineer granting or denying an application under this section may request a hearing before the state engineer pursuant to section 24-4-104, C.R.S. The state engineer may, in the state engineer's discretion, have such hearings conducted before such agent as it may designate for a ruling in the matter. Any party who seeks to reverse or modify the ruling of the agent of the state engineer may file an appeal to the state engineer pursuant to section 24-4-105, C.R.S.

(b) Any party aggrieved by a final decision of the state engineer granting or denying an application filed under this section may within thirty days after such decision file a petition for review with the district court in the county in which the well is located. Upon receipt of such petition, the designated ground water judge for the basin in which the well is located shall conduct such hearings, pursuant to section 24-4-106, C.R.S., as necessary to determine whether or not the decision of the state engineer shall be upheld. In any case in which the state engineer's decision is reversed, the judge shall order the state engineer to grant or deny the application, as such reversal may require, and may specify such terms and conditions as are appropriate.

(7) The board of any ground water management district has the authority to adopt rules that further restrict the issuance of small capacity well permits. In addition, the board of any ground water management district has the authority to adopt rules that expand the acre-foot limitations for small capacity wells set forth in this section. However, in no event shall an annual volume of more than eighty acre-feet be allowed for any small capacity well. Rules adopted by the board may be instituted only after a public hearing. Notice of such hearing shall be published. Such notice shall state the time and place of the hearing and describe, in general terms, the rules proposed. Within sixty days after such hearing, the board shall announce the rules adopted and shall cause notice of such action to be published. In addition, the board shall mail, within five days after the adoption of the rules, a copy of the rules to the state engineer. Any party adversely affected or aggrieved by such a rule may, not later than thirty days after the last date of publication, initiate judicial review in accordance with the provisions of section 24-4-106, C.R.S.; except that venue for such judicial review shall be in the district court for the county in which the office of the ground water management district is located.

37-90-107. Application for use of ground water - publication of notice - conditional permit - hearing on objections - well permits.

(1) Any person desiring to appropriate ground water for a beneficial use in a designated ground water basin shall make application to the commission in a form to be prescribed by the commission. The applicant shall specify the particular designated ground water basin or subdivision thereof from which water is proposed to be appropriated, the beneficial use to which it is proposed to apply such water, the location of the proposed well, the name of the owner of the land on which such well will be located, the estimated average annual amount of water applied for in acre-feet, the estimated maximum pumping rate in gallons per minute, and, if the proposed use is irrigation, the description of the land to be irrigated and the name of the owner thereof, together with such other reasonable information as the commission may designate on the form prescribed. The amount of water applied for shall only be utilized on the land designated on

the application. The place of use shall not be changed without first obtaining authorization from the ground water commission.

(2) Upon the filing of such application, a preliminary evaluation shall be made to determine if the application may be granted. If the application can be given favorable consideration by the ground water commission under existing policies, then, within thirty days, the application shall be published.

(3) After the expiration of the time for filing objections, if no such objections have been filed, the commission shall, if it finds that the proposed appropriation will not unreasonably impair existing water rights from the same source and will not create unreasonable waste, grant the said application, and the state engineer shall issue a conditional permit to the applicant within forty-five days after the expiration of the time for filing objections or within forty-five days after the hearing provided for in subsection (4) of this section to appropriate all or a part of the waters applied for, subject to such reasonable conditions and limitations as the commission may specify.

(4) If objections have been filed within the time in said notice specified, the commission shall set a date for a hearing on the application and the objections thereto and shall notify the applicants and the objectors of the time and place. Such hearing shall be held in the designated ground water basin and within the district, if one exists, in which the proposed well will be located or at such other place as may be designated by the commission for the convenience of, and as agreed to by, the parties involved. If after such hearing it appears that there are no unappropriated waters in the designated source or that the proposed appropriation would unreasonably impair existing water rights from such source or would create unreasonable waste, the application shall be denied; otherwise, it shall be granted in accordance with subsection (3) of this section. The commission shall consider all evidence presented at the hearing and all other matters set forth in this section in determining whether the application should be denied or granted.

(5) In ascertaining whether a proposed use will create unreasonable waste or unreasonably affect the rights of other appropriators, the commission shall take into consideration the area and geologic conditions, the average annual yield and recharge rate of the appropriate water supply, the priority and quantity of existing claims of all persons to use the water, the proposed method of use, and all other matters appropriate to such questions. With regard to whether a proposed use will impair uses under existing water rights, impairment shall include the unreasonable lowering of the water level, or the unreasonable deterioration of water quality, beyond reasonable economic limits of withdrawal or use. If an application for a well permit cannot otherwise be granted pursuant to this section, a well permit may be issued upon approval by the ground water commission of a replacement plan that meets the requirements of this article and the rules adopted by the commission. A replacement plan shall not be used as a vehicle for avoiding limitations on existing wells, including but not limited to restrictions on change of well location. Therefore, before approving any replacement plan that includes existing wells, the commission shall require independent compliance with all rules governing those existing wells in addition to compliance with any guidelines or rules governing replacement plans.

(6) (a) (I) No person shall, in connection with the extraction of sand and gravel by open mining as defined in section 34-32-103 (9), C.R.S., expose designated ground water to the atmosphere unless said person has obtained a well permit from the ground water commission. If

an application for such a well permit cannot otherwise be granted pursuant to this section, a well permit shall be issued upon approval by the ground water commission of a replacement plan which meets the requirements of this article, pursuant to the guidelines or rules and regulations adopted by the commission.

(II) Any person who extracted sand and gravel by open mining and exposed ground water to the atmosphere after December 31, 1980, shall apply for a well permit pursuant to this section and, if applicable, shall submit a replacement plan prior to July 15, 1990.

(b) If any designated ground water was exposed to the atmosphere in connection with the extraction of sand and gravel by open mining as defined in section 34-32-103 (9), C.R.S., prior to January 1, 1981, no such well permit or replacement plan shall be required to replace depletions from evaporation; except that the burden of proving that such designated ground water was exposed prior to January 1, 1981, shall be upon the party claiming the benefit of this exception.

(c) Any person who has reactivated or reactivates open mining operations which exposed designated ground water to the atmosphere but which ceased activity prior to January 1, 1981, shall obtain a well permit and shall apply for approval of a replacement plan or a plan of substitute supply pursuant to paragraph (a) of this subsection (6).

(d) In addition to the well permit filing fee required by section 37-90-116, the commission shall collect the following fees:

(I) For persons who exposed ground water to the atmosphere on or after January 1, 1981, but prior to July 15, 1989, one thousand three hundred forty-three dollars; except that, if such plan is filed prior to July 15, 1990, as required by subparagraph (II) of paragraph (a) of this subsection (6), the filing fee shall be seventy dollars if such plan includes ten acres or less of exposed ground water surface area or three hundred fifty dollars if such plan includes more than ten acres of exposed ground water surface area.

(II) For persons who expose ground water to the atmosphere on or after July 15, 1989, one thousand three hundred forty-three dollars regardless of the number of acres exposed. In the case of new mining operations, such fee shall cover two years of operation of the plan.

(III) For persons who reactivated or who reactivate mining operations which ceased activity prior to January 1, 1981, and who enlarge the surface area of any gravel pit lake beyond the area it covered before the cessation of activity, one thousand three hundred forty-three dollars.

(IV) For persons who request renewal of an approved substitute water supply plan prior to the expiration date of the plan, two hundred seventeen dollars regardless of the number of acres exposed.

(V) For persons whose approved substitute water supply plan has expired and who submit a subsequent plan, one thousand three hundred forty-three dollars regardless of the number of acres exposed. An approved plan shall be considered expired if the

applicant has not applied for renewal before the expiration date of the plan. The state engineer shall notify the applicant in writing if the plan is considered expired.

(VI) For persons whose proposed substitute water supply plan was disapproved and who submit a subsequent plan, one thousand three hundred forty-three dollars regardless of the number of acres exposed. The state engineer shall notify the applicant in writing of disapproval of a plan.

(e) Excluding the well permit filing fee required by section 37-90-116 (2), all fees collected with a replacement plan shall be credited to the gravel pit lakes augmentation fund, which fund is created in section 37-90-137 (11) (f).

(f) A person who has obtained a reclamation permit pursuant to section 34-32-112, C.R.S., shall be allowed to apply for a single well permit and to submit a single replacement plan for the entire acreage covered by the reclamation plan without regard to the number of gravel pit lakes located within such acreage.

(g) Notwithstanding the amount specified for any fee in paragraph (d) of this subsection (6), the commission by rule or as otherwise provided by law may reduce the amount of one or more of the fees if necessary pursuant to section 24-75-402 (3), C.R.S., to reduce the uncommitted reserves of the fund to which all or any portion of one or more of the fees is credited. After the uncommitted reserves of the fund are sufficiently reduced, the commission by rule or as otherwise provided by law may increase the amount of one or more of the fees as provided in section 24-75-402 (4), C.R.S.

(7) (a) The commission shall allocate, upon the basis of the ownership of the overlying land, any designated ground water contained in the Dawson, Denver, Arapahoe, or Laramie-Fox Hills aquifers. Permits issued pursuant to this subsection (7) shall allow withdrawals on the basis of an aquifer life of one hundred years. The commission shall adopt the necessary rules to carry out the provisions of this subsection (7).

(b) Any right to the use of ground water entitling its owner or user to construct a well, which right was initiated prior to November 19, 1973, as evidenced by a current decree, well registration statement, or an unexpired well permit issued prior to November 19, 1973, shall not be subject to the provisions of paragraph (a) of this subsection (7).

(c) (I) Rights to designated ground water in the Dawson, Denver, Arapahoe, or Laramie-Fox Hills aquifers to be allocated pursuant to paragraph (a) of this subsection (7) may be determined in accordance with the provisions of this section. Any person desiring to obtain such a determination shall make application to the commission in a form to be prescribed by the commission. A fee of sixty dollars shall be submitted with the application for each aquifer, which sum shall not be refunded. The application may also include a request for approval of a replacement plan if one is required under commission rules to replace any depletions to alluvial aquifers caused due to withdrawal of ground water from the Dawson, Denver, Arapahoe, or Laramie-Fox Hills aquifers.

(II) The publication and hearing requirements of this section shall also apply to an application for determination of water rights pursuant to this subsection (7).

(III) Any such commission approved determination shall be considered a final determination of the amount of ground water so determined; except that the commission shall retain jurisdiction for subsequent adjustment of such amount to conform to the actual local aquifer characteristics from adequate information obtained from well drilling or test holes.

(d) (I) Any person desiring a permit for a well to withdraw ground water for a beneficial use from the Dawson, Denver, Arapahoe, or Laramie-Fox Hills aquifers shall make application to the commission on a form to be prescribed by the commission. A fee of sixty dollars shall be submitted with the application, which sum shall not be refunded.

(II) A well permit shall not be granted unless a determination of ground water to be withdrawn by the well has been made pursuant to paragraph (c) of this subsection (7).

(III) The application for a well permit shall also include a replacement plan if one is required under commission rules to replace any depletions to alluvial aquifers caused due to withdrawal of ground water from the Dawson, Denver, Arapahoe, or Laramie-Fox Hills aquifers and the required plan has not been approved pursuant to paragraph (c) of this subsection (7). The publication and hearing requirements of this section shall apply to an application for such a replacement plan.

(IV) The annual amount of withdrawal allowed in any well permits issued under this subsection (7) shall be less than or equal to the amount determined pursuant to paragraph (c) of this subsection (7) and may, if so provided by any such determination, provide for the subsequent adjustment of such amount to conform to the actual aquifer characteristics encountered upon drilling of the well or test holes.

(8) The commission shall have the exclusive authority to issue or deny well permits under this section. The commission shall consider any recommendation by ground water management districts concerning well permit applications under this section.

37-90-107.5. Replacement plans.

Any person desiring to obtain an approval of a replacement plan within the boundaries of a designated ground water basin pursuant to the provisions of this article shall make an application to the commission in a form prescribed by the commission. The applicant shall also submit a summary of the application to the commission for publication. If the commission determines the application to be complete, it shall be published pursuant to section 37-90-112 within sixty days after the filing of such an application. If an objection is filed, a hearing shall be held pursuant to section 37-90-113. The commission shall approve the replacement plan if the commission determines that the replacement plan meets the requirements of this article and rules adopted by the commission. A replacement plan shall not be used as a vehicle for avoiding limitations on existing wells, including but not limited to restrictions on change of well location. Therefore, before approving any replacement plan that includes existing wells, the commission shall require independent compliance with all rules governing those existing wells in addition to compliance with any guidelines or rules governing replacement plans.

37-90-108. Final permit - evidence of well construction and beneficial use - limitations.

(1) (a) After having received a conditional permit to appropriate designated ground water, the applicant, within one year from the date of the issuance of said permit, shall construct the well or other works necessary to apply the water to a beneficial use.

(b) The applicant, upon completion of the well, shall furnish information to the commission, in the form prescribed by the commission, as to the depth of the well, the water-bearing formations intercepted by the well, and the maximum sustained pumping rate in gallons per minute.

(c) If the well described in the conditional permit is not constructed within one year from the date of the issuance of the conditional permit as provided in this subsection (1), the conditional permit shall expire and be of no force or effect; except that, upon a showing of good cause, the commission may grant one extension of time only for a period not to exceed one year. If the well has been constructed timely but the completion information required by this subsection (1) has not been furnished to the commission, the procedures specified in subsection (6) of this section shall apply.

(2) (a) If the well or wells described in a conditional permit have been constructed in compliance with subsection (1) of this section, the applicant, within three years after the date of the issuance of said permit, shall furnish by sworn affidavit, in the form prescribed by the commission, evidence that water from such well or wells has been put to beneficial use; except that the requirements of this paragraph (a) shall not apply to a well described in a conditional permit issued on or after July 1, 1991, to withdraw designated ground water from the Dawson, Denver, Arapahoe, or Laramie-Fox Hills aquifers.

(b) Such affidavit shall be prima facie evidence of the matters contained therein but shall be subject to objection by others, including ground water management districts, claiming to be injured thereby and to such verification and inquiry as the commission shall consider appropriate in each particular case.

(c) If such required affidavit is not furnished to the commission within the time and as provided in this subsection (2), the conditional permit shall expire and be of no force or effect except as provided in subsection (4) of this section.

(d) If the well described in a conditional permit issued on or after July 1, 1991, to withdraw designated ground water from the Dawson, Denver, Arapahoe, or Laramie-Fox Hills aquifers has been constructed in compliance with subsection (1) of this section, the applicant shall file a notice with the commission of commencement of beneficial use on a form prescribed by the commission within thirty days after the first beneficial use of any water withdrawn from such well.

(3) (a) (I) To the extent that the commission finds that water has been put to a beneficial use and that the other terms of the conditional permit have been complied with and after publication of the information required in the final permit, as provided in section 37-90-112, the commission shall order the state engineer to issue a final permit to use designated ground water, containing such limitations and conditions as the commission deems necessary to prevent waste and to protect the rights of other appropriators. In determining the extent of beneficial use for the

purpose of issuing final permits, the commission may use the same criteria for determining the amount of water used on each acre that has been irrigated that is used in evaluating the amount of water available for appropriation under section 37-90-107. The provisions of this subparagraph (I) shall not apply to a well described in a conditional permit issued on or after July 1, 1991, to withdraw designated ground water from the Dawson, Denver, Arapahoe, or Laramie-Fox Hills aquifers.

(II) A final permit is not required to be issued for a well described in a conditional permit issued on or after July 1, 1991, to withdraw designated ground water from the Dawson, Denver, Arapahoe, or Laramie-Fox Hills aquifers. For such a well, a conditional permit, subject to the conditions of issuance of such a permit, shall be considered a final determination of a well's water right if the well is in compliance with all other applicable requirements of this article.

(b) In determining the extent of beneficial use prior to the issuance of a final permit, the commission may either increase or decrease the quantity of water and the amount of irrigated acreage, if any, according to the evidence presented to the commission, but no increase shall be permitted which will increase the quantity of water beyond that authorized by the original decree, conditional permit, registration statement, or other well permit issued prior to basin designation or which otherwise will unreasonably affect the rights of other appropriators.

(c) Any owner of an existing valid conditional permit issued before July 1, 1978, may file with the commission an amended statement of beneficial use, in the form prescribed by the commission, on or before December 31, 1979, and not thereafter, if any such change occurred and was approved on or before August 5, 1977.

(4) The procedural requirement that a statement of beneficial use shall be filed shall apply to all permits wherein the water was put to beneficial use since May 17, 1965. If information pertaining to completion of the well as required in subsection (1) of this section has been received but evidence that water has been placed to beneficial use has not been received as of three years after the date of issuance of the conditional permit, the commission shall so notify the applicant by certified mail. The notice shall give the applicant the opportunity to submit proof that the water was put to beneficial use prior to three years after the date of issuance of the conditional permit. The proof must be received by the commission within twenty days after receipt of the notice by the applicant, and, if the conditional permit was issued on or after July 14, 1975, the proof must be accompanied by a filing fee of thirty dollars. If the commission finds the proof to be satisfactory, the conditional permit shall remain in force and effect. The commission shall consider any records of the commission and any evidence provided to the commission and all other matters set forth in this section in determining whether the conditional permit should remain in force and effect.

(5) All final permits shall set forth the following information as a minimum:

(a) The priority date;

(b) The name of the claimant;

(c) The quarter-quarter in which the well is located;

- (d) The maximum annual volume of the appropriation in acre-feet per year;
- (e) The maximum pumping rate in gallons per minute; and
- (f) The maximum number of acres which have been irrigated, if used for irrigation.

(6) The procedural requirement that the well completion information required by subsection (1) of this section be furnished to the commission shall apply to all permits issued after May 17, 1965. If the well has been constructed within twenty-four months after the date of issuance of the permit where the permit was issued before June 7, 1979, or within twelve months after the date of issuance of the permit where the permit was issued on or after June 7, 1979, or by the expiration date of the permit, including any extension, but the completion information has not been furnished to the commission within six months after said allowable time for the well completion, the commission shall so notify the applicant by certified mail. The notice shall give the applicant the opportunity to submit proof that the well was completed within the time specified above or by the expiration date of the permit and to submit the information required by subsection (1) of this section and a showing that, due to excusable neglect, inadvertence, or mistake, the applicant failed to submit the evidence and information on time. The proof and information must be received by the commission within twenty days after receipt of the notice by the applicant and must be accompanied by a filing fee of thirty dollars. If the commission finds the proof to be satisfactory, the permit shall remain in force and effect. The commission shall consider any records of the commission and any evidence provided to the commission and all other matters set forth in this section in determining whether the permit should remain in force and effect.

(7) Notwithstanding the amount specified for any fee in this section, the commission by rule or as otherwise provided by law may reduce the amount of one or more of the fees if necessary pursuant to section 24-75-402 (3), C.R.S., to reduce the uncommitted reserves of the fund to which all or any portion of one or more of the fees is credited. After the uncommitted reserves of the fund are sufficiently reduced, the commission by rule or as otherwise provided by law may increase the amount of one or more of the fees as provided in section 24-75-402 (4), C.R.S.

37-90-117. Water conservation board - duties.

The Colorado water conservation board has the power, and it is its duty, to investigate and determine the nature and extent of the ground water resources of the state of Colorado. It is also the duty of said board to study and determine the effect, if any, of the withdrawal of ground water upon aquifer supply and upon the surface flow of streams, and the information obtained thereby shall be made available to the state engineer and the ground water commission and any designated ground water management district. Nothing in this section shall be construed as impairing the authority of the state engineer, the ground water commission, or any ground water management district to make such investigation as it may find necessary or desirable to enable it to perform its duties under this article.

37-90-130. Management districts - board of directors.

(1) The district board has the duty and responsibility of consulting with the commission on all ground water matters affecting the district to determine whether proposed restrictions or regulations are suitable for such area, to determine in conjunction with the commission whether

the area of the district should be enlarged or contracted, to cooperate with the commission and the state engineer in the assembling of data on the ground water aquifers in the area and the enforcement of regulations or restrictions which may be imposed thereon, and to assist the commission and the state engineer to the end of conserving the ground water supplies of the area for the maximum beneficial use thereof.

(2) After the issuance of any well permit for the use of ground water within the district by the ground water commission as provided in sections 37-90-107 and 37-90-108, the district board has the authority to regulate the use, control, and conservation of the ground water of the district covered by such permit by any one or more of the following methods, but the proposed controls, regulations, or conservation measures shall be subject to review and final approval by the ground water commission if objection is made in accordance with section 37-90-131:

(a) To provide for the spacing of wells producing from the ground water aquifer or subdivision thereof and to regulate the production therefrom so as to minimize as far as practicable the lowering of the water table or the reduction of the artesian pressure;

(b) To acquire lands for the erection of dams and for the purpose of draining lakes, draws, and depressions, and to construct dams, drain lakes, depressions, draws, and creeks, and to install pumps and other equipment necessary to recharge the ground water reservoir or subdivision thereof;

(c) To develop comprehensive plans for the most efficient use of the water of the ground water aquifer or subdivision thereof and for the control and prevention of waste of such water, which plans shall specify in such detail as may be practicable the acts, procedure, performance, and avoidance which are or may be necessary to effect such plans, including specifications therefor; to carry out research projects, develop information, and determine limitations, if any, which should be made on the withdrawal of water from the ground water aquifer or subdivisions thereof; to collect and preserve information regarding the use of such water and the practicability of recharge of the ground water aquifer; and to publish such plans and information and bring them to the notice and attention of the users of such ground water within the district and to encourage their adoption and execution;

(d) To require the owner or operator of any land in the district upon which is located any open or uncovered well to close or cap the same permanently with a covering capable of sustaining weight of not less than four hundred pounds, except when said well is in actual use by the owner or operator thereof;

(e) To promulgate reasonable rules and regulations for the purpose of conserving, preserving, protecting, and recharging the ground water of the ground water aquifer or subdivision thereof, in conformity with the provisions of this article;

(f) To prohibit, after affording an opportunity for a hearing before the board of the local district and presentation of evidence, the use of ground water outside the boundaries of the district where such use materially affects the rights acquired by permit by any owner or operator of land within the district;

(g) In the control and administration of the quantity of ground water extracted from the aquifer, to adopt such devices, procedures, measures, or methods as it deems appropriate to effectuate this purpose;

(h) To promulgate reasonable rules and regulations with respect to the protection and compensation of the owners of any small capacity wells as defined in section 37-90-105 which may be injured by irrigation wells;

(i) To represent the district at any hearings or proceedings conducted or authorized by the commission affecting any water rights, either actual or potential, within the district;

(j) To exercise such other administrative and regulatory authority concerning the ground waters of the district as, without the existence of the district, would otherwise be exercised by the ground water commission.

(3) All special and regular meetings of the board shall be held at locations which are within the boundaries of the district or which are within the boundaries of any county in which the district is located, in whole or in part, or in any county so long as the meeting location does not exceed twenty miles from the district boundaries. The provisions of this subsection (3) may be waived only if the following criteria are met:

(a) The proposed change of location of a meeting of the board appears on the agenda of a regular or special meeting of the board; and

(b) A resolution is adopted by the board stating the reason for which a meeting of the board is to be held in a location other than under the provisions of this subsection (3) and further stating the date, time, and place of such meeting.

(4) After the issuance of any well permit for a small capacity well within the district pursuant to section 37-90-105, the district has the authority to enforce compliance with the terms and conditions governing the use of the ground water allowed by such permit to ensure that such use is within the scope of what is allowed by section 37-90-105 and the well permit.

37-90-137. Permits to construct wells outside designated basins - fees - permit no ground water right - evidence - time limitation - well permits - repeal.

(1) On and after May 17, 1965, no new wells shall be constructed outside the boundaries of a designated ground water basin nor the supply of water from existing wells outside the boundaries of a designated ground water basin increased or extended, unless the user makes an application in writing to the state engineer for a permit to construct a well, in a form to be prescribed by the state engineer. The applicant shall specify the particular aquifer from which the water is to be diverted, the beneficial use to which it is proposed to apply such water, the location of the proposed well, the name of the owner of the land on which such well will be located, the average annual amount of water applied for in acre-feet per year, the proposed maximum pumping rate in gallons per minute, and, if the proposed use is agricultural irrigation, a description of the land to be irrigated and the name of the owner thereof, together with such other reasonable information as the state engineer may designate on the form prescribed.

(2) (a) Upon receipt of an application for a replacement well or a new, increased, or additional supply of ground water from an area outside the boundaries of a designated ground water basin, accompanied by a filing fee of sixty dollars, the state engineer shall make a determination as to whether or not the exercise of the requested permit will materially injure the vested water rights of others.

(b) (I) If the state engineer finds that there is unappropriated water available for withdrawal by the proposed well and that the vested water rights of others will not be materially injured, and can be substantiated by hydrological and geological facts, the state engineer shall issue a permit to construct a well, but not otherwise; except that no permit shall be issued unless the location of the proposed well will be at a distance of more than six hundred feet from an existing well, but if the state engineer, after a hearing, finds that circumstances in a particular instance so warrant, or if a court decree is entered for the proposed well location after notice has been given in accordance with subparagraph (II) of this paragraph (b), the state engineer may issue a permit without regard to the limitation specified in this subsection (2).

(II) (A) If the state engineer notifies the owners of all wells within six hundred feet of the proposed well by certified mail and receives no response within the time set forth in the notice, no hearing shall be required.

(B) If the proposed well is part of a water court proceeding adjudicating the water right for the well, or if the proposed well is part of an adjudication of a plan for augmentation or change of water right, no hearing by the state engineer shall be required if evidence is provided to the water court that the applicant has given notice of the water court application, at least ten days before making the application, by registered or certified mail, return receipt requested, to the owners of record of all wells within six hundred feet of the proposed well.

(III) The hearing requirement shall not apply to wells located less than six hundred feet from existing wells if the proposed well will serve an individual residential site and the proposed pumping rate will not exceed fifteen gallons per minute.

(c) The permit shall set forth such conditions for drilling, casing, and equipping wells and other diversion facilities as are reasonably necessary to prevent waste, pollution, or material injury to existing rights.

(d) (I) The state engineer shall endorse upon the application the date of its receipt, file and preserve such application, and make a record of such receipt and the issuance of the permit in his office so indexed as to be useful in determining the extent of the uses made from various ground water sources.

(II) The state engineer shall act upon an application filed under this section within forty-five days after its receipt.

(3) (a) (I) (A) Any permit to construct a well outside a designated ground water basin, except a permit issued pursuant to subsection (4) or subsection (7) of this section, issued on or after April 21, 1967, shall expire one year after the issuance thereof, unless the applicant to whom such permit was issued shall furnish to the state engineer, prior to such expiration, evidence that

the water from such well has been put to beneficial use or unless, prior to such expiration, the state engineer, upon application and with good cause shown as to why the well has not been completed and an estimate of the time necessary to complete the well, extends such permit for only one additional period certain, not to exceed one year; but the limitation on the extension of well permits provided for in this subparagraph (I) shall not apply to well permits for federally authorized water projects contained in paragraph (d) of this subsection (3). The state engineer shall charge a fee of sixty dollars for such extension.

(B) If the requirements of section 37-92-301 are met, the expiration of any permit pursuant to sub-subparagraph (A) of this subparagraph (I) associated with a conditional underground water right shall not be the sole basis to determine the validity of such conditional water right.

(II) Any permit to construct a well pursuant to subsection (4) or subsection (7) of this section, issued on or after July 1, 1985, shall expire one year after the issuance thereof, unless prior to such expiration the applicant to whom such permit was issued shall furnish to the state engineer, on such forms as may be prescribed by the state engineer, either notice that the well has been completed or a showing of good cause as to why the well has not been completed and an estimate of the time necessary to complete the well, whereupon the state engineer shall extend such permit for one or more additional one-year periods. The state engineer shall charge a fee of sixty dollars for such extension. The state engineer may require the metering or other reasonable measurement of withdrawals of ground water pursuant to such permits and the reasonable recording and disclosure of such measured withdrawals. The state engineer may also require the filing of a notice of commencement of beneficial use under such permit.

(b) Any permit to construct a well issued by the state engineer prior to April 21, 1967, shall expire on July 1, 1973, unless the applicant furnishes to the state engineer, prior to July 1, 1973, evidence that the water from such well has been put to beneficial use prior to that date. The state engineer shall give notice by certified or registered mail to all persons to whom such permits were issued at the address shown on the state engineer's records, setting forth the provisions of this subsection (3). Such notices shall be mailed not later than December 31, 1971.

(c) If evidence that water has been placed to beneficial use or notice of well completion as required pursuant to paragraph (a) of this subsection (3) has not been received as of the expiration date of the permit to construct a well, the state engineer shall so notify the applicant by certified mail. The notice shall give the applicant the opportunity to submit proof that the water was put to beneficial use prior to the expiration date or notice that the well was completed prior to the expiration date, but, due to excusable neglect, inadvertence, or mistake, the applicant failed to submit the evidence or notice on time. The proof must be received by the state engineer within twenty days of receipt of the notice by the applicant and must be accompanied by a filing fee of thirty dollars. If the state engineer finds the proof to be satisfactory the permit shall remain in force and effect. The state engineer shall consider any records available in the state engineer's office and any evidence provided to the state engineer and all other matters set forth in this section in determining whether the permit should remain in force and effect.

(d) In the case of federally authorized water projects wherein well permits are required by this section and have been secured, the expiration dates thereof may be extended for additional periods based upon a finding of good cause by the state engineer following a review of any such project at least annually by the state engineer.

(4) (a) In the issuance of a permit to construct a well outside a designated ground water basin and not meeting the exemptions set forth in section 37-92-602 to withdraw nontributary ground water or any ground water in the Dawson, Denver, Arapahoe, and Laramie-Fox Hills aquifers, the provisions of subsections (1) and (2) of this section shall apply.

(b) (I) Permits issued pursuant to this subsection (4) shall allow withdrawals on the basis of an aquifer life of one hundred years.

(II) Subject to the provisions of subsections (1) and (2) of this section, the amount of such ground water available for withdrawal shall be that quantity of water, exclusive of artificial recharge, underlying the land owned by the applicant or underlying land owned by another:

(A) Who has consented in writing to the applicant's withdrawal; or

(B) Whose consent exists by virtue of a lawful municipal ordinance or a quasi-municipal district resolution in effect prior to January 1, 1985, and which consent was the subject of a water court application for determination of nontributary ground water rights filed by the affected municipality or quasi-municipal district prior to January 1, 1985; or

(C) Who shall be deemed to have consented to the withdrawal of ground water pursuant to the provisions of subsection (8) of this section.

(b.5) (I) An applicant claiming to own the overlying land or to have the consent of the owner of the overlying land as contemplated in sub-subparagraph (A) of subparagraph (II) of paragraph (b) of this subsection (4) shall furnish to the state engineer, in addition to evidence of such consent, evidence that the applicant has given notice of the application by registered or certified mail, return receipt requested, no less than ten days prior to the making of the application, to every record owner of the overlying land and to every person who has a lien or mortgage upon, or deed of trust to, the overlying land recorded in the county in which the overlying land is located.

(II) For purposes of this paragraph (b.5), "person" means any individual, partnership, association, or corporation authorized to do business in the state of Colorado, or any political subdivision or public agency thereof, or any agency of the United States.

(III) The provisions of subparagraph (I) of this paragraph (b.5) do not apply to applicants whose right to withdraw the ground water has been determined by a valid decree nor to political subdivisions of the state of Colorado, special districts, municipalities, or quasi-municipal districts that have obtained consent to withdraw the ground water by deed, assignment, or other written evidence of consent where, at the time of application, the overlying land is within the water service area of such entity.

(c) Material injury to vested nontributary ground water rights shall not be deemed to result from the reduction of either hydrostatic pressure or water level in the aquifer.

(d) The annual amount of withdrawal allowed in any well permits issued under this subsection (4) shall be the same as the amount determined by court decree, if any, and may, if so provided by any such decree, provide for the subsequent adjustment of such amount to conform to the actual aquifer characteristics encountered upon drilling of the well or test holes.

(5) Any right to the use of ground water entitling its owner or user to construct a well, which right was initiated prior to July 6, 1973, as evidenced by an unexpired well permit issued prior to July 6, 1973, or a current decree, shall not be subject to the provisions of subsection (4) of this section.

(6) Rights to nontributary ground water outside of designated ground water basins may be determined in accordance with the procedures of sections 37-92-302 to 37-92-305. Such proceedings may be commenced at any time and may include a determination of the right to such water for existing and future uses. Such determination shall be in accordance with subsections (4) and (5) of this section. Claims pending as of October 11, 1983, which have been published pursuant to section 37-92-302 in the resume need not be republished.

(7) In the case of dewatering of geologic formations by removing nontributary ground water to facilitate or permit mining of minerals:

(a) No well permit shall be required unless the nontributary ground water being removed will be beneficially used; and

(b) In the issuance of any well permit pursuant to this subsection (7), the provisions of subsection (4) of this section shall not apply. The provisions of subsections (1), (2), and (3) of this section shall apply; except that, in considering whether the permit shall issue, the requirement that the state engineer find that there is unappropriated water available for withdrawal and the six-hundred-foot spacing requirement in subsection (2) of this section shall not apply. The state engineer shall allow the rate of withdrawal stated by the applicant to be necessary to dewater the mine; except that, if the state engineer finds that the proposed dewatering will cause material injury to the vested water rights of others, the applicant may propose, and the permit shall contain, terms and conditions which will prevent such injury. The reduction of hydrostatic pressure level or water level alone does not constitute material injury.

(8) It is recognized that economic considerations generally make it impractical for individual landowners to drill wells into the aquifers named in this subsection (8) for individual water supplies where municipal or quasi-municipal water service is available and that the public interest justifies the use of such ground water by municipal or quasi-municipal water suppliers under certain conditions. Therefore, wherever any existing municipal or quasi-municipal water supplier is obligated either by law or by contract in effect prior to January 1, 1985, to be the principal provider of public water service to landowners within a certain municipal or quasi-municipal boundary in existence on January 1, 1985, said water supplier may adopt an ordinance

or resolution, after ten days' notice pursuant to the provisions of part 1 of article 70 of title 24, C.R.S., which incorporates ground water from the Dawson, Denver, Arapahoe, or Laramie-Fox Hills aquifers underlying all or any specified portion of such municipality's or quasi-municipality's boundary into its actual municipal service plan. Upon adoption of such ordinance or resolution, a detailed map of the land area as to which consent is deemed to have been given shall be filed with the state engineer. Upon the effective date of such ordinance or resolution, the owners of land which overlies such ground water shall be deemed to have consented to the withdrawal by that water supplier of all such ground water; except that no such consent shall be deemed to be given with respect to any portion of the land if:

- (a) Water service to such portion of the land is not reasonably available from said water supplier and no plan has been established by that supplier allowing the landowner to obtain an alternative water supply;
- (b) Such ordinance or resolution is adopted prior to September 1, 1985, and, prior to January 1, 1985, such ground water was conveyed or reserved or consent to use such ground water was given or reserved in writing to anyone other than such water supplier and such conveyance, reservation, or consent has been properly recorded prior to August 31, 1985;
- (c) Such ordinance or resolution is adopted on or after September 1, 1985, and said ground water has been conveyed or reserved or consent to use such ground water has been given or reserved in writing to anyone other than such water supplier and such conveyance, reservation, or consent is properly recorded before the effective date of that ordinance or resolution;
- (d) Consent to use such ground water has been given to anyone other than such water supplier by the lawful effect of an ordinance or resolution adopted prior to January 1, 1985;
- (e) Such ground water has been decreed or permitted to anyone other than such water supplier prior to the effective date of such ordinance or resolution; or
- (f) Such portion of the land is not being served by said water supplier as of the effective date of such ordinance or resolution and such ground water is the subject of an application for determination of a right to use ground water filed in the water court prior to July 1, 1985.

(9) (a) For the purpose of making the state engineer's consideration of well permit applications for the withdrawal of ground water from wells described in subsection (4) of this section more certain and expeditious, the state engineer may, to the extent provided in this subsection (9) and pursuant to the "State Administrative Procedure Act", adopt rules and regulations to prescribe reasonable criteria and procedures for the application for, and the evaluation, issuance, extension, and administration of, such well permits. Such rules and regulations shall only be promulgated after the state engineer has conducted a hydrogeologic analysis, the results of which factually support the promulgation and the content of such rules and regulations for any particular aquifer or portion thereof. All such rules and regulations shall allow the withdrawal pursuant to such permits of the full amount of ground water determined under subsection (4) of this section and shall afford the applicant the opportunity to rebut any presumptive aquifer characteristics. Presumptive aquifer characteristics established by those rules and regulations shall also apply to the determination of rights to ground water from wells

described in subsection (4) of this section by the water judges, subject to rebuttal by any party. In all rule-making proceedings authorized by this subsection (9), the state engineer shall afford interested persons the right of cross-examination. Judicial review of all rules and regulations promulgated pursuant to this subsection (9) shall be in accordance with the "State Administrative Procedure Act"; except that venue for such review shall lie exclusively with the water judge or judges for the water division or divisions within which the subject ground water is located.

(b) On or before December 31, 1985, the state engineer shall promulgate reasonable rules and regulations applying exclusively to the Dawson, Denver, Arapahoe, and Laramie-Fox Hills aquifers to the extent necessary to assure that the withdrawal of ground water from wells described in subsection (4) of this section will not materially affect vested water rights to the flow of any natural stream. In no event shall the rules and regulations promulgated under this paragraph (b) require that persons who withdraw nontributary ground water, as defined in section 37-90-103 (10.5), relinquish the right to consume, by means of original use, reuse, and successive use, more than two percent of the amount of such ground water which is withdrawn without regard to dominion or control of the ground water so relinquished, nor shall they require that judicial approval of plans for augmentation providing for such relinquishment be obtained.

(c) (I) As to wells which will be completed in the Dawson, Denver, Arapahoe, and Laramie-Fox Hills aquifers and will withdraw ground water that is not nontributary ground water, as defined in section 37-90-103 (10.7), judicial approval of plans for augmentation shall be required prior to the use of such ground water. As to such wells completed in the Dawson aquifer, decrees approving such plans for augmentation shall provide for the replacement of actual stream depletion to the extent necessary to prevent any injurious effect, based upon actual aquifer conditions in existence at the time of such decree. As to such wells completed in the Denver, Arapahoe, or Laramie-Fox Hills aquifers more than one mile from any point of contact between any natural stream including its alluvium on which water rights would be injuriously affected by any stream depletion, and any such aquifer, such decrees shall provide for the replacement to the affected stream system or systems of a total amount of water equal to four percent of the amount of water withdrawn on an annual basis. As to such wells completed in such aquifers at points closer than one mile to any such contact, the amount of such replacement shall be determined using the assumption that the hydrostatic pressure level in each such aquifer has been lowered at least to the top of that aquifer throughout that aquifer. Such decrees may also require the continuation of replacement after withdrawal ceases if necessary to compensate for injurious stream depletions caused by prior withdrawals from such wells and shall meet all other statutory criteria for such plans.

(II) This paragraph (c) shall not be in effect from July 1, 2003, until July 1, 2006, during which time paragraph (c.5) of this subsection (9) shall apply.

(c.5) (I) As to wells which will be completed in the Dawson, Denver, Arapahoe, and Laramie-Fox Hills aquifers and will withdraw ground water that is not nontributary ground water, as defined in section 37-90-103 (10.7), judicial approval of plans for augmentation shall be required prior to the use of such ground water. As to such wells completed in the Dawson aquifer, decrees approving such plans for augmentation shall provide for the replacement of actual out-of-priority depletions to the stream caused by withdrawals from such wells and shall meet all other statutory criteria for such plans. As to such wells

completed in the Denver, Arapahoe, or Laramie-Fox Hills aquifers more than one mile from any point of contact between any natural stream including its alluvium on which water rights would be injuriously affected by any stream depletion, and any such aquifer, such decrees shall provide for the replacement to the affected stream system or systems of a total amount of water equal to four percent of the amount of water withdrawn on an annual basis. As to such wells completed in such aquifers at points closer than one mile to any such contact, the amount of such replacement shall be determined using the assumption that the hydrostatic pressure level in each such aquifer has been lowered at least to the top of that aquifer throughout that aquifer. Such decrees shall also require the replacement of actual out-of-priority depletions of the stream after withdrawal ceases to compensate for stream depletions caused by prior withdrawals from such wells and shall meet all other statutory criteria for such plans.

(II) This paragraph (c.5) is effective July 1, 2003, and is repealed, effective July 1, 2006.

(d) On or before July 1, 1995, the state engineer shall promulgate reasonable rules which shall apply to the permitting and use of waters artificially recharged into the Dawson, Denver, Arapahoe, and Laramie-Fox Hills aquifers. The rules shall effectuate the maximum utilization of these aquifers through the conjunctive use of surface and ground water resources.

(10) Owners of such permits issued pursuant to subsection (4) of this section shall be entitled to the issuance of permits for additional wells to be constructed on the land referred to in subsection (4) of this section. The standards of subsection (4) of this section shall be applied as if the applications for those additional well permits were filed on the same dates that the original applications were filed.

(11) (a) (I) No person shall, in connection with the extraction of sand and gravel by open mining as defined in section 34-32-103 (9), C.R.S., expose ground water to the atmosphere unless said person has obtained a well permit from the state engineer pursuant to this section. A well permit shall be issued upon approval by the water court of a plan for augmentation or upon approval by the state engineer of a plan of substitute supply; except that no increased replacement of water shall be required by the water court or the state engineer whenever the operator or owner of land being mined has, prior to January 15, 1989, entered into and continually thereafter complied with a written agreement with a water conservancy district or water users' association to replace or augment the depletions in connection with or resulting from open mining of sand and gravel.

(II) Any person who extracted sand and gravel by open mining and exposed ground water to the atmosphere after December 31, 1980, shall apply for a well permit pursuant to this section and, if applicable, shall apply for approval of a plan for augmentation or a plan of substitute supply prior to July 15, 1990.

(b) If any ground water was exposed to the atmosphere in connection with the extraction of sand and gravel by open mining as defined in section 34-32-103 (9), C.R.S., prior to January 1, 1981, no such well permit, plan for augmentation, or plan of substitute supply shall be required to replace depletions from evaporation; except that the burden of proving that such ground water was exposed prior to January 1, 1981, shall be upon the party claiming the

benefit of this exception. Notwithstanding the provisions of this paragraph (b), judgments and decrees entered prior to July 1, 1989, approving plans for augmentation, which plans include the replacement of depletions from such evaporation, shall be given full effect and shall be enforced according to their terms.

(c) Any person who has reactivated or reactivates open mining operations which exposed ground water to the atmosphere but which ceased activity prior to January 1, 1981, shall obtain a well permit and shall apply for approval of a plan for augmentation or a plan of substitute supply pursuant to paragraph (a) of this subsection (11).

(d) No person who obtains or operates a plan for augmentation or plan of substitute supply prior to July 1, 1989, shall be required to make replacement for the depletions from evaporation exempted in this subsection (11) or otherwise replace water for increased calls which may result therefrom.

(e) In addition to the well permit filing fee required by subsection (2) of this section, the state engineer shall collect the following fees:

(I) For persons who exposed ground water to the atmosphere on or after January 1, 1981, but prior to July 15, 1989, one thousand three hundred forty-three dollars; except that, if such plan is filed prior to July 15, 1990, as required by subparagraph (II) of paragraph (a) of this subsection (11), the filing fee shall be seventy dollars if such plan includes ten acres or less of exposed ground water surface area or three hundred fifty dollars if such plan includes more than ten acres of exposed ground water surface area.

(II) For persons who expose ground water to the atmosphere on or after July 15, 1989, one thousand three hundred forty-three dollars regardless of the number of acres exposed. In the case of new mining operations, such fee shall cover two years of operation of the plan.

(III) For persons who reactivated or who reactivate mining operations which ceased activity prior to January 1, 1981, and enlarge the surface area of any gravel pit lake beyond the area it covered before the cessation of activity, one thousand three hundred forty-three dollars.

(IV) For persons who request renewal of an approved substitute water supply plan prior to the expiration date of the plan, two hundred seventeen dollars regardless of the number of acres exposed.

(V) For persons whose approved substitute water supply plan has expired and who submit a subsequent plan, one thousand three hundred forty-three dollars regardless of the number of acres exposed. An approved plan shall be considered expired if the applicant has not applied for renewal before the expiration date of the plan. The state engineer shall notify the applicant in writing if the plan is considered expired.

(VI) For persons whose proposed substitute water supply plan was disapproved and who submit a subsequent plan, one thousand three hundred forty-three dollars regardless of

the number of acres exposed. The state engineer shall notify the applicant in writing of disapproval of a plan.

(f) Excluding the well permit filing fee required by subsection (2) of this section, all fees collected with an application for approval of a plan for augmentation or a plan of substitute supply shall be credited to the gravel pit lakes augmentation fund, which fund is hereby created, and shall be used by the state engineer for the implementation and enforcement of the water augmentation program. The general assembly shall make annual appropriations from the gravel pit lakes augmentation fund for such purposes, and no moneys from the general fund shall be expended or appropriated for such purposes.

(g) A person who has obtained a reclamation permit pursuant to section 34-32-112, C.R.S., shall be allowed to apply for a single well permit and to submit a single plan for augmentation or a single plan of substitute supply for the entire acreage covered by the reclamation plan without regard to the number of gravel pit lakes placed within such acreage.

(12) (a) In considering any well permit application in water division 3 that involves a new withdrawal of groundwater that will affect the rate or direction of movement of water in the confined aquifer, the state engineer shall recognize that unappropriated water is not made available and injury is not prevented as a result of the reduction of water consumption by nonirrigated native vegetation.

(b) (I) Any well permit application in water division 3 that involves a new withdrawal of groundwater that will affect the rate or direction of movement of water in the confined aquifer system referred to in section 37-90-102 (3) shall be permitted pursuant to a judicially approved plan for augmentation that, in addition to all other lawful requirements for such plans, shall be subject to the requirements of rules for the withdrawal of such groundwater within water division 3 that are promulgated by the state engineer pursuant to the procedures of section 37-92-501 (2). Such rules shall be based upon specific study of the confined aquifer system and shall be promulgated prior to July 1, 2003. In the promulgation of such rules for water division 3, the state engineer shall recognize that unappropriated water is not made available and injury is not prevented as a result of the reduction of water consumption by nonirrigated native vegetation. Such rules shall also permit the development of the water resources of water division 3 in a manner that will protect Colorado's ability to meet its interstate compact obligations and to prevent injury to senior appropriators in the order of their priorities, and with due regard for daily, seasonal, and longer demands on the water supply. The state engineer and the Colorado water conservation board shall proceed with diligence to complete needed studies.

(II) Subparagraph (I) of this paragraph (b) is repealed, effective July 1, 2003; except that nothing in this subsection (12) shall affect the validity of the rules adopted by the state engineer for groundwater withdrawals in water division 3, or affect the applicability of such rules to well permits that have been or will be issued, and judicial decrees that have been or will be entered, for the withdrawal of groundwater in water division 3.

(13) Notwithstanding the amount specified for any fee in this section, the commission by rule or as otherwise provided by law may reduce the amount of one or more of the fees if necessary pursuant to section 24-75-402 (3), C.R.S., to reduce the uncommitted reserves of the fund to

which all or any portion of one or more of the fees is credited. After the uncommitted reserves of the fund are sufficiently reduced, the commission by rule or as otherwise provided by law may increase the amount of one or more of the fees as provided in section 24-75-402 (4), C.R.S.

IDAHO

IDAHO CONSTITUTION

ARTICLE 15 WATER RIGHTS

<http://www3.state.id.us/legislat/idstat.html>

Section 1. Use Of Waters A Public Use.

The use of all waters now appropriated, or that may hereafter be appropriated for sale, rental or distribution; also of all water originally appropriated for private use, but which after such appropriation has heretofore been, or may hereafter be sold, rented, or distributed, is hereby declared to be a public use, and subject to the regulations and control of the state in the manner prescribed by law.

Section 3. Water Of Natural Stream -- Right To Appropriate -- State's Regulatory Power-- Priorities.

The right to divert and appropriate the unappropriated waters of any natural stream to beneficial uses, shall never be denied, except that the state may regulate and limit the use thereof for power purposes. Priority of appropriation shall give the better right as between those using the water; but when the waters of any natural stream are not sufficient for the service of all those desiring the use of the same, those using the water for domestic purposes shall (subject to such limitations as may be prescribed by law) have the preference over those claiming for any other purpose; and those using the water for agricultural purposes shall have preference over those using the same for manufacturing purposes. And in any organized mining district those using the water for mining purposes or milling purposes connected with mining, shall have preference over those using the same for manufacturing or agricultural purposes. But the usage by such subsequent appropriators shall be subject to such provisions of law regulating the taking of private property for public and private use, as referred to in section 14 of article I of this Constitution.

Section 4. Continuing Rights To Water Guaranteed.

Whenever any waters have been, or shall be, appropriated or used for agricultural purposes, under a sale, rental, or distribution thereof, such sale, rental, or distribution shall be deemed an exclusive dedication to such use; and whenever such waters so dedicated shall have once been sold, rented or distributed to any person who has settled upon or improved land for agricultural purposes with the view of receiving the benefit of such water under such dedication, such person, his heirs, executors, administrators, successors, or assigns, shall not thereafter, without his consent, be deprived of the annual use of the same, when needed for domestic purposes, or to irrigate the land so settled upon or improved, upon payment therefore, and compliance with such equitable terms and conditions as to the quantity used and times of use, as may be prescribed by law.

Section 5. Priorities And Limitations On Use.

Whenever more than one person has settled upon, or improved land with the view of receiving water for agricultural purposes, under a sale, rental, or distribution thereof, as in the last preceding section of this article provided, as among such persons, priority in time shall give superiority of right to the use of such water in the numerical order of such settlements or improvements; but whenever the supply of such water shall not be sufficient to meet the

demands of all those desiring to use the same, such priority of right shall be subject to such reasonable limitations as to the quantity of water used and times of use as the legislature, having due regard both to such priority of right and the necessities of those subsequent in time of settlement or improvement, may by law prescribe.

Section 7. State Water Resource Agency.

There shall be constituted a Water Resource Agency, composed as the Legislature may now or hereafter prescribe, which shall have power to construct and operate water projects; to issue bonds, without state obligation, to be repaid from revenues of projects; to generate and wholesale hydroelectric power at the site of production; to appropriate public waters as trustee for Agency projects; to acquire, transfer and encumber title to real property for water projects and to have control and administrative authority over state lands required for water projects; all under such laws as may be prescribed by the Legislature. Additionally, the State Water Resource Agency shall have power to formulate and implement a state water plan for optimum development of water resources in the public interest. The Legislature of the State of Idaho shall have the authority to amend or reject the state water plan in a manner provided by law. Thereafter any change in the state water plan shall be submitted to the Legislature of the State of Idaho upon the first day of a regular session following the change and the change shall become effective unless amended or rejected by law within sixty days of its submission to the Legislature.

IDAHO STATUTES

TITLE 42 IRRIGATION AND DRAINAGE -- WATER RIGHTS AND RECLAMATION

<http://www3.state.id.us/idstat/TOC/42FTOC.html>

CHAPTER 2 APPROPRIATION OF WATER -- PERMITS, CERTIFICATES, AND LICENSES – SURVEY

42-233a. "Critical Ground Water Area" Defined -- Public Hearings Publication Of Notice -- Granting Or Denial Of Application -- Appeal.

"Critical ground water area" is defined as any ground water basin, or designated part thereof, not having sufficient ground water to provide a reasonably safe supply for irrigation of cultivated lands, or other uses in the basin at the then current rates of withdrawal, or rates of withdrawal projected by consideration of valid and outstanding applications and permits, as may be determined and designated, from time to time, by the director of the department of water resources.

Upon the designation of a "critical ground water area" it shall be the duty of the director of the department of water resources to conduct a public hearing in the area concerned to apprise the public of such designation and the reasons therefore. Notice of the hearing shall be published in two (2) consecutive weekly issues of a newspaper of general circulation in the area immediately prior to the date set for hearing.

In the event an area has been designated as a "critical ground water area" and the director of the department of water resources desires to remove such designation or modify the boundaries thereof, he shall likewise conduct a public hearing following similar publication of notice prior to taking such action.

In the event the application for permit is made with respect to an area that has not been designated as a critical ground water area the director of the department of water resources shall forthwith issue a permit in accordance with the provisions of section 42-203 and section 42-204, Idaho Code, provided said application otherwise meets the requirements of such sections; and further provided that if the applicant proposes to appropriate water from a ground water basin or basins in an amount which exceeds ten thousand (10,000) acre-feet per year either from a single or a combination of diversion points, and the director determines that the withdrawal of such amount will substantially and adversely affect existing pumping levels of appropriators pumping from such basin or basins, or will substantially and adversely affect the amount of water available for withdrawal from such basin or basins under existing water rights, the director may require that the applicant undertake such recharge of the ground water basin or basins as will offset that withdrawal adversely affecting existing pumping levels or water rights.

In the event the application for permit is made in an area which has been designated as a critical ground water area, if the director of the department of water resources from the investigation made by him on said application as herein provided, or from the investigation made by him in determining the area to be critical, or from other information that has come officially to his attention, has reason to believe that there is insufficient water available subject to appropriation at the location of the proposed well described in the application, the director of the department of water resources may forthwith deny said application; provided, however, that if ground water at such location is available in a lesser amount than that applied for the director of the department of water resources may issue a permit for the use of such water to the extent that such water is available for such appropriation.

The director may require all water right holders within a critical ground water area to report withdrawals of ground water and other necessary information for the purpose of assisting him in determining available ground water supplies and their usage.

The director, upon determination that the ground water supply is insufficient to meet the demands of water rights within all or portions of a critical ground water area, shall order those water right holders on a time priority basis, within the area determined by the director, to cease or reduce withdrawal of water until such time as the director determines there is sufficient ground water. Such order shall be given only before September 1 and shall be effective for the growing season during the year following the date the order is given.

Any applicant dissatisfied with the decision of the director of the department of water resources may appeal to the district court in the manner provided for in section 42-237e, Idaho Code.

42-233b. Ground Water Management Area.

"Ground water management area" is defined as any ground water basin or designated part thereof which the director of the department of water resources has determined may be approaching the conditions of a critical ground water area. Upon designation of a ground water management area the director shall publish notice in two (2) consecutive weekly issues of a newspaper of general circulation in the area.

When a ground water management area is designated by the director of the department of water resources, or at any time thereafter during the existence of the designation, the director may approve a ground water management plan for the area. The ground water management plan shall provide for managing the effects of ground water withdrawals on the aquifer from which withdrawals are made and on any other hydraulically connected sources of water.

Applications for permits made within a ground water management area shall be approved by the director only after he has determined on an individual basis that sufficient water is available and that other prior water rights will not be injured.

The director may require all water right holders within a designated water management area to report withdrawals of ground water and other necessary information for the purpose of assisting him in determining available ground water supplies and their usage.

The director, upon determination that the ground water supply is insufficient to meet the demands of water rights within all or portions of a water management area, shall order those water right holders on a time priority basis, within the area determined by the director, to cease or reduce withdrawal of water until such time as the director determines there is sufficient ground water. Such order shall be given only before September 1 and shall be effective for the growing season during the year following the date the order is given.

42-234. Ground Water Recharge Projects -- Authority Of Department To Grant Permit.

(1) It is the policy of the state of Idaho to promote and encourage the optimum development and augmentation of the water resources of this state. The legislature deems it essential, therefore, that water projects designed to advance this policy be given maximum support. The legislature finds that the projects to recharge ground water basins in Idaho, may enhance the full realization of our water resource potential by furthering water conservation and increasing the water available for beneficial use.

(2) The legislature hereby declares that the appropriation and underground storage of water for purposes of ground water recharge shall constitute a beneficial use and hereby authorizes the department of water resources to issue a permit for the appropriation and underground storage of unappropriated waters in an area of recharge. The rights acquired pursuant to any permit and license obtained as herein authorized shall be secondary to all prior perfected water rights, including those water rights for power purposes that may otherwise be subordinated by contract entered into by the governor and Idaho power company on October 25, 1984, and ratified by the legislature pursuant to section 42-203B, Idaho Code. Any right so granted shall be subject to depletion for surface storage or direct uses after a period of years sufficient to amortize the investment of the appropriator.

(3) The legislature further recognizes that incidental ground water recharge benefits are often obtained from the diversion and use of water for various beneficial purposes. However, such incidental recharge may not be used as the basis for claim of a separate or expanded water right. Incidental recharge of aquifers which occurs as a result of water diversion and use that does not exceed the vested water right of water right holders is in the public interest. The values of such incidental recharge shall be considered in the management of the state's water resources.

MONTANA

MONTANA CONSTITUTION

ARTICLE 9 ENVIRONMENT AND NATURAL RESOURCES

http://leg.state.mt.us/css/mtcode_const/const.asp

Section 3. Water Rights.

(1) All existing rights to the use of any waters for any useful or beneficial purpose are hereby recognized and confirmed.

(2) The use of all water that is now or may hereafter be appropriated for sale, rent, distribution, or other beneficial use, the right of way over the lands of others for all ditches, drains, flumes, canals, and aqueducts necessarily used in connection therewith, and the sites for reservoirs necessary for collecting and storing water shall be held to be a public use.

(3) All surface, underground, flood, and atmospheric waters within the boundaries of the state are the property of the state for the use of its people and are subject to appropriation for beneficial uses as provided by law.

(4) The legislature shall provide for the administration, control, and regulation of water rights and shall establish a system of centralized records, in addition to the present system of local records.

MONTANA STATUTES

TITLE 85 WATER USE

http://leg.state.mt.us/css/mtcode_const/laws.asp

Chapter 2. Surface Water and Ground Water. Part 5. Ground Water

85-2-506. Controlled Ground Water Areas -- Designation Or Modification.

(1) The department may designate or modify controlled ground water areas as provided in this part.

(2) Designation or modification of an area of controlled ground water use may be proposed to the department on its own motion, by petition of a state or local public health agency for identified public health risks, or by petition signed by at least 20 or one-fourth of the users (whichever is the lesser number) of ground water in a ground water area in which there are alleged to be facts showing:

(a) that ground water withdrawals are in excess of recharge to the aquifer or aquifers within the ground water area;

(b) that excessive ground water withdrawals are very likely to occur in the near future because of consistent and significant increases in withdrawals from within the ground water area;

(c) that significant disputes regarding priority of rights, amounts of ground water in use by appropriators, or priority of type of use are in progress within the ground water area;

(d) that ground water levels or pressures in the area in question are declining or have declined excessively;

(e) that excessive ground water withdrawals would cause contaminant migration;

(f) that ground water withdrawals adversely affecting ground water quality within the ground water area are occurring or are likely to occur; or

(g) that water quality within the ground water area is not suited for a specific beneficial use defined by 85-2-102(2)(a).

(3) When a proposal is made, the department shall fix a time and place for a hearing, which time may not be less than 90 days from the making of the proposal. The place for the hearing must be within or as close as practical to the controlled ground water area.

(4) The department shall publish a notice of the hearing, setting forth:

(a) the names of the petitioners;

(b) the description by legal subdivisions (section, township, range) of all lands included in or proposed to be included in the ground water area or subarea;

(c) the purpose of the hearing; and

(d) the time and place of the hearing where any interested person may appear, either in person or by attorney, file written objections to the granting of the proposal, and be fully heard.

(5) The notice of hearing must be published at least once in each week for 3 successive weeks not less than 30 days before the date of the hearing in a newspaper of general circulation in the county or counties in which the ground water area or subarea is located. The department shall also cause a copy of the notice, together with a copy of the petition, to be served by mail, not less than 30 days before the hearing, upon each well driller licensed in Montana whose address is within any county in which any part of the area in question is located; upon each person or public agency known from an examination of the records in the department's office to be a claimant or appropriator of ground water in the area in question (claimant or appropriator meaning one who diverts, impounds, or withdraws ground water and not merely one who uses or obtains ground water from another who diverts, impounds, or withdraws ground water); upon the bureau; and upon the mayor or presiding officer of the governing body of each incorporated municipality located in whole or in part within the proposed ground water area. The department may also serve notice upon any other person or state or federal agency that the department feels may be interested in or affected by the proposed designation or modification of a controlled ground water area. The petition need not be served on any petitioner. A copy of the notice, together with a copy of the proposal, must be mailed to each person at the person's last-known address, and service is complete upon depositing it in the post office, postage prepaid, addressed to each

person on whom it is to be served. Publication and mailing of the notice as prescribed in this section, when completed, is considered to be sufficient notice of the hearing to all interested persons.

85-2-507. Limiting Withdrawals -- Modification Of Order.

(1) At the time set for the hearing, the department shall proceed to hear oral and written evidence relevant to the designation or modification of the controlled ground water area presented by the bureau, the department, and any other interested party. A full record must be kept of all evidence taken at the hearing. The procedure must secure a full, fair, and orderly proceeding and permit all relevant evidence to be received. The common-law and statutory rules of evidence apply only upon stipulation of all parties.

(2) After the conclusion of the hearing, the department shall make written findings and an order. The department shall by order declare the area in question to be a controlled ground water area if the department finds on the basis of the hearing that:

- (a) the public health, safety, or welfare requires a corrective control to be adopted; and
- (b) (i) there is a wasteful use of water from existing wells or undue interference with existing wells;

(ii) any proposed use or well will impair or substantially interfere with existing rights to appropriate surface water or ground water by others; or

(iii) the facts alleged in the petition, as required by 85-2-506(2), are true.

(3) The order must define the boundary of the controlled ground water area and must indicate which of the ground water aquifers located within the area in question are included within the controlled ground water area. Any number of ground water aquifers which wholly or partially overlie one another may be included in the same controlled ground water area.

(4) The order may include the following corrective control provisions:

- (a) a provision closing the controlled ground water area to further appropriation of ground water, in which event the department shall refuse to accept any applications for beneficial water use permits to appropriate ground water located within the controlled area;
- (b) a provision determining a permissible total withdrawal of ground water in the controlled area by day, month, or year and permitting the department to apportion the permissible total withdrawal among the appropriators holding valid rights to the ground water in the controlled area in accordance with the relative dates of priority of the rights;
- (c) a provision according preference, without reference to relative priorities, to withdrawals of ground water in the controlled area for domestic and livestock purposes first and then to withdrawals for other beneficial purposes, including but not limited to agricultural, industrial, municipal (other than domestic), and recreational purposes, in the order that the department considers advisable under the circumstances;

(d) a provision reducing the permissible withdrawal of ground water by any appropriator or well in the controlled area;

(e) when two or more wells in the controlled area are used by the same appropriator, a provision adjusting the total permissible withdrawal of ground water by the appropriator or a provision forbidding the use of one or more of the wells;

(f) a provision requiring and specifying a system of rotation of use of ground water in the controlled area;

(g) provisions making any additional requirements that are necessary to protect the public health, safety, and welfare in accordance with the intent, purposes, and requirements of this part and the laws of the state.

(5) (a) If at the conclusion of the hearing the department finds that sufficient facts are not available to designate or modify a permanent controlled ground water area, the department may by order designate the area in question to be a temporary controlled ground water area. The order may include the corrective control provisions contained in subsection (4). A temporary controlled ground water area must be designated as such for a period not to exceed 2 years from the date of the order designating the temporary controlled ground water area. The department may, for sufficient cause, extend the time period for an additional 2 years, and in this case, all ground water appropriators in the controlled ground water area must be notified of the extension.

(b) During the 2-year period, the department shall commence studies necessary to obtain the facts needed to assist in the designation or modification of a permanent controlled ground water area. Facts gathered during the study period must be presented at a hearing prior to the designation or modification of a permanent controlled ground water area. All parties appearing at the first hearing must be served notice of this hearing by mail at least 30 days prior to the date set for the hearing. The service is complete upon deposit of the notice at the post office, postage prepaid, addressed to each person on whom service is to be made. Mailing of the notice, when completed, is considered to be sufficient notice of the hearing to all persons directly affected. The department shall file in its records proof of service by its own affidavit. The hearing must be conducted by the department in the manner of the first hearing, and the department shall make written findings of fact and conclusions of law and issue an order according to the provisions set forth in subsections (1) through (4). In the event that the department does not complete the necessary study in the 2-year period or extension of the period, the temporary controlled ground water area designation will terminate at the end of the 2-year period or extension.

(6) The department may enforce the order and bring an action for an injunction in a district court of a district in which all or part of the area affected is located, in addition to all other remedies.

(7) The order of the department must be published and mailed by the department in the manner and for the length of time as prescribed by 85-2-506 for the publication and mailing of the notice of hearing, except that a copy of the written findings and order of the department must be mailed instead of a copy of the proposal and, except further, that a copy of the order, together with a copy of the written findings, must be mailed to each petitioner at the petitioner's last-

known address. The department shall file a copy of the order with the county clerk of each county within which any part of the controlled ground water area lies, and the county clerk shall record the order without fee. The department shall file in its records proof of service by its own affidavit of service. Upon publication and mailing of the order as prescribed in this section, the order is final and conclusive unless an appeal from the order is taken.

(8) The department may by order suspend, modify, or revoke any order made as provided in this section upon the notice and in the manner that is reasonable under the circumstances. A copy of each suspension, modification, or revocation must be served or filed and recorded as provided for orders in subsection (7).

(9) While a matter is pending, the department may restrict further development of the subarea.

85-2-508. Controlled Ground Water Areas -- Permits To Appropriate.

A person may appropriate ground water in a controlled area only by applying for and receiving a permit from the department in accordance with part 3 of this chapter. The department may not grant a permit if the withdrawal would be beyond the capacity of the aquifer or aquifers in the ground water area to yield ground water within a reasonable or feasible pumping lift (in the case of pumping developments) or within a reasonable or feasible reduction of pressure (in the case of artesian developments).

85-2-521. Coal Bed Methane Wells -- Requirements.

(1) Coal bed methane production wells that involve the production of ground water must comply with this section.

(2) Ground water produced in association with a coal bed methane well must be managed in any of the following ways:

- (a) used as irrigation or stock water or for other beneficial uses in compliance with Title 85, chapter 2, part 3;
- (b) reinjected to an acceptable subsurface strata or aquifer pursuant to applicable law;
- (c) discharged to the surface or surface waters subject to the permit requirements of Title 75, chapter 5; or
- (d) managed through other methods allowed by law.

(3) (a) Prior to the development of a coal bed methane well that involves the production of ground water from an aquifer that is a source of supply for appropriation rights or permits to appropriate under this chapter, the developer of the coal bed methane well shall notify and offer a reasonable mitigation agreement to each appropriator of water who holds an appropriation right or a permit to appropriate under this chapter that is for ground water and for which the point of diversion is within:

- (i) 1 mile of the coal bed methane well; or
- (ii) one-half mile of a well that is adversely affected by the coal bed methane well.

(b) The mitigation agreement must address the reduction or loss of water resources and must provide for prompt supplementation or replacement of water from any natural spring or water well adversely affected by the coal bed methane well. The mitigation agreement is not required to address a loss of water well productivity that does not result from a reduction in the amount of available water because of production of ground water from the coal bed methane well.

NEVADA

NEVADA CONSTITUTION

ARTICLE 8 MUNICIPAL AND OTHER CORPORATIONS

<http://www.leg.state.nv.us/Const/NVConst.html>

Section 8. Municipal corporations formed under general laws.

The legislature shall provide for the organization of cities and towns by general laws and shall restrict their power of taxation, assessment, borrowing money, contracting debts and loaning their credit, except for procuring supplies of water; provided, however, that the legislature may, by general laws, in the manner and to the extent therein provided, permit and authorize the electors of any city or town to frame, adopt and amend a charter for its own government, or to amend any existing charter of such city or town.

NEVADA STATUTES

TITLE 48 WATERS

<http://www.leg.state.nv.us/NRS/Index.cfm>

CHAPTER 534 UNDERGROUND WATER AND WELLS

534.020 Underground waters belong to public and are subject to appropriation for beneficial use; declaration of legislative intent.

1. All underground waters within the boundaries of the state belong to the public, and, subject to all existing rights to the use thereof, are subject to appropriation for beneficial use only under the laws of this state relating to the appropriation and use of water and not otherwise.

2. It is the intention of the legislature, by this chapter, to prevent the waste of underground waters and pollution and contamination thereof and provide for the administration of the provisions thereof by the state engineer, who is hereby empowered to make such rules and regulations within the terms of this chapter as may be necessary for the proper execution of the provisions of this chapter.

534.090 Forfeiture and abandonment of rights.

1. Except as otherwise provided in this section, failure for 5 successive years after April 15, 1967, on the part of the holder of any right, whether it is an adjudicated right, an unadjudicated right, or a permitted right, and further whether the right is initiated after or before March 25, 1939, to use beneficially all or any part of the underground water for the purpose for which the right is acquired or claimed, works a forfeiture of both undetermined rights and determined rights to the use of that water to the extent of the nonuse. For water rights in basins for which the state engineer keeps pumping records, if the records of the state engineer indicate at least 4 consecutive years, but less than 5 consecutive years, of nonuse of all or any part of such a water right which is governed by this chapter, the state engineer shall notify the owner of the water right, as determined in the records of the office of the state engineer, by registered or certified

mail that he has 1 year after the date of the notice in which to use the water right beneficially and to provide proof of such use to the state engineer or apply for relief pursuant to subsection 2 to avoid forfeiting the water right. If, after 1 year after the date of the notice, proof of beneficial use is not sent to the state engineer, the state engineer shall, unless he has granted a request to extend the time necessary to work a forfeiture of the water right, declare the right forfeited within 30 days. Upon the forfeiture of a right to the use of ground water, the water reverts to the public and is available for further appropriation, subject to existing rights. If, upon notice by registered or certified mail to the owner of record whose right has been declared forfeited, the owner of record fails to appeal the ruling in the manner provided for in NRS 533.450, and within the time provided for therein, the forfeiture becomes final. The failure to receive a notice pursuant to this subsection does not nullify the forfeiture or extend the time necessary to work the forfeiture of a water right.

2. The state engineer may, upon the request of the holder of any right described in subsection 1, extend the time necessary to work a forfeiture under that subsection if the request is made before the expiration of the time necessary to work a forfeiture. The state engineer may grant, upon request and for good cause shown, any number of extensions, but a single extension must not exceed 1 year. In determining whether to grant or deny a request, the state engineer shall, among other reasons, consider:

- (a) Whether the holder has shown good cause for his failure to use all or any part of the water beneficially for the purpose for which his right is acquired or claimed;
- (b) The unavailability of water to put to a beneficial use which is beyond the control of the holder;
- (c) Any economic conditions or natural disasters which made the holder unable to put the water to that use; and
- (d) Whether the holder has demonstrated efficient ways of using the water for agricultural purposes, such as center-pivot irrigation. The state engineer shall notify, by registered or certified mail, the owner of the water right, as determined in the records of the office of the state engineer, of whether he has granted or denied the holder's request for an extension pursuant to this subsection.

3. If the failure to use the water pursuant to subsection 1 is because of the use of center-pivot irrigation before July 1, 1983, and such use could result in a forfeiture of a portion of a right, the state engineer shall, by registered or certified mail, send to the owner of record a notice of intent to declare a forfeiture. The notice must provide that the owner has at least 1 year from the date of the notice to use the water beneficially or apply for additional relief pursuant to subsection 2 before forfeiture of his right is declared by the state engineer.

4. A right to use underground water whether it is vested or otherwise may be lost by abandonment. If the state engineer, in investigating a ground water source, upon which there has been a prior right, for the purpose of acting upon an application to appropriate water from the same source, is of the belief from his examination that an abandonment has taken place, he shall so state in his ruling approving the application. If, upon notice by registered or certified mail to the owner of record who had the prior right, the owner of record of the prior right fails to appeal

the ruling in the manner provided for in NRS 533.450, and within the time provided for therein, the alleged abandonment declaration as set forth by the state engineer becomes final.

534.120 Rules, regulations and orders of state engineer when ground water being depleted in designated area; preferred uses of water; temporary permits to appropriate water; revocation of temporary permits; limitation of depth and prohibition of repairs of certain wells. [Effective through June 30, 2005.]

1. Within an area that has been designated by the state engineer, as provided for in this chapter, where, in his judgment, the ground water basin is being depleted, the state engineer in his administrative capacity is herewith empowered to make such rules, regulations and orders as are deemed essential for the welfare of the area involved.

2. In the interest of public welfare, the state engineer is authorized and directed to designate preferred uses of water within the respective areas so designated by him and from which the ground water is being depleted, and in acting on applications to appropriate ground water, he may designate such preferred uses in different categories with respect to the particular areas involved within the following limits:

(a) Domestic, municipal, quasi-municipal, industrial, irrigation, mining and stock-watering uses; and

(b) Any uses for which a county, city, town, public water district or public water company furnishes the water.

3. Except as otherwise provided in subsection 5, the state engineer may:

(a) Issue temporary permits to appropriate ground water which can be limited as to time and which may, except as limited by subsection 4, be revoked if and when water can be furnished by an entity such as a water district or a municipality presently engaged in furnishing water to the inhabitants thereof.

(b) Deny applications to appropriate ground water for any use in areas served by such an entity.

(b) Limit the depth of domestic wells.

(d) Prohibit the drilling of wells for domestic use, as defined in NRS 534.013 and 534.0175, in areas where water can be furnished by an entity such as a water district or a municipality presently engaged in furnishing water to the inhabitants thereof.

4. The state engineer may revoke a temporary permit issued pursuant to subsection 3 for residential use, and require a person to whom ground water was appropriated pursuant to the permit to obtain water from an entity such as a water district or a municipality engaged in furnishing water to the inhabitants of the designated area, only if:

(a) The distance from the property line of any parcel served by a well pursuant to a temporary permit to the pipes and other appurtenances of the proposed source of water to which the property will be connected is not more than 180 feet;

(b) The well providing water pursuant to the temporary permit needs to be redrilled or have repairs made which require the use of a well-drilling rig; and

(c) The holder of the permit will be offered financial assistance to pay at least 50 percent but not more than 85 percent, as determined by the entity providing the financial assistance, of the cost of the local and regional connection fees and capital improvements necessary for making the connection to the proposed source of water. In a basin that has a water authority that has a ground water management program, the state engineer shall not revoke the temporary permit unless the water authority abandons and plugs the well and pays the costs related thereto. If there is not a water authority in the basin that has a ground water management program, the person shall abandon and plug his well in accordance with the rules of the state engineer.

5. The state engineer may, in an area in which he has issued temporary permits pursuant to subsection 3, limit the depth of a domestic well pursuant to paragraph (c) of subsection 3 or prohibit repairs from being made to a well, and may require the person proposing to deepen or repair the well to obtain water from an entity such as a water district or a municipality engaged in furnishing water to the inhabitants of the designated area, only if:

(a) The distance from the property line of any parcel served by the well to the pipes and other appurtenances of the proposed source of water to which the property will be connected is not more than 180 feet;

(b) The deepening or repair of the well would require the use of a well-drilling rig; and

(c) The person proposing to deepen or repair the well will be offered financial assistance to pay at least 50 percent but not more than 85 percent, as determined by the entity providing the financial assistance, of the cost of the local and regional connection fees and capital improvements necessary for making the connection to the proposed source of water.

In a basin that has a water authority that has a ground water management program, the state engineer shall not prohibit the deepening or repair of a well unless the water authority abandons and plugs the well and pays the costs related thereto. If there is not a water authority in the basin that has a ground water management program, the person shall abandon and plug his well in accordance with the rules of the state engineer.

6. For good and sufficient reasons, the state engineer may exempt the provisions of this section with respect to public housing authorities.

534.180 Applicability of chapter to wells used for domestic purposes; registration and plugging of wells used for domestic purposes.

1. Except as otherwise provided in subsection 2 and as to the furnishing of any information required by the state engineer, this chapter does not apply in the matter of obtaining permits for the development and use of underground water from a well for domestic purposes where the draught does not exceed a daily maximum of 1,800 gallons.

2. The state engineer may designate any ground water basin or portion thereof as a basin in which the registration of a well is required if the well is drilled for the development and use of underground water for domestic purposes. A driller who drills such a well shall register the

information required by the state engineer within 10 days after the completion of the well. The state engineer shall make available forms for the registration of such wells and shall maintain a register of those wells.

3. The state engineer may require the plugging of such a well which is drilled on or after July 1, 1981, at any time not sooner than 1 year after water can be furnished to the site by:

- (a) A political subdivision of this state; or
- (b) A public utility whose rates and service are regulated by the public utilities commission of Nevada, but only if the charge for making the connection to the service is less than \$200.

534.250 Project for recharge, storage and recovery of water: Permit required; issuance, contents, modification and assignment of permit; monitoring requirements.

1. Any person desiring to operate a project must first make an application to, and obtain from, the state engineer a permit to operate such a project.

2. The state engineer shall, upon application, issue a permit to operate a project if he determines that:

- (a) The applicant has the technical and financial capability to construct and operate a project.
- (b) The applicant has a right to use the proposed source of water for recharge pursuant to an approved appropriation consistent with this chapter and chapter 533 of NRS. Any determination made by the state engineer for purposes of this paragraph is not binding in any other proceeding.
- (c) The project is hydrologically feasible.
- (d) If the project is in an area of active management, the project is consistent with the program of augmentation for that area.
- (e) The project will not cause harm to users of land or other water within the area of hydrologic effect of the project.

3. The holder of a permit may apply to the state engineer for approval to assign the permit to another person. The state engineer must approve the assignment if the person to whom the permit is to be assigned will meet the requirements of paragraphs (a) and (b) of subsection 2 when the assignment is completed.

4. A permit for a project must include:

- (a) The name and mailing address of the person to whom the permit is issued.
- (b) The name of the area of active management, ground water basin or ground water sub-basin, as applicable, in which the project will be located.
- (c) The capacity and plan of operation of the project.
- (d) Any monitoring program required pursuant to subsection 5.

(e) Any conditions which are imposed pursuant to this chapter or any regulation adopted pursuant thereto.

(f) Any other information which the state engineer deems necessary to include.

5. The state engineer shall require the holder of a permit to monitor the operation of the project and the effect of the project on users of land and other water within the area of hydrologic effect of the project. In determining any monitoring requirements, the state engineer shall cooperate with all government entities which regulate or monitor, or both, the quality of water.

6. The state engineer, on his initiative or at the request of the holder of the permit, may modify the conditions of the permit if monitoring demonstrates that modifications are necessary. In determining whether modifications are necessary, the state engineer shall consider uses of land or water which were not in existence when the permit was issued.

NEW MEXICO

NEW MEXICO CONSTITUTION

ARTICLE 16- IRRIGATION AND WATER RIGHTS

<http://www.amlegal.com/nxt/gateway.dll?f=templates&fn=default.htm&vid=newmexico:statutes>

Section 1. Existing water rights confirmed.

All existing rights to the use of any waters in this state for any useful or beneficial purpose are hereby recognized and confirmed.

Section 2. Appropriation of water.

The unappropriated water of every natural stream, perennial or torrential, within the state of New Mexico, is hereby declared to belong to the public and to be subject to appropriation for beneficial use, in accordance with the laws of the state. Priority of appropriation shall give the better right.

Section 3. Beneficial use of water.

Beneficial use shall be the basis, the measure and the limit of the right to the use of water.

Section 5. Appeals in matters relating to water rights.

In any appeal to the district court from the decision, act or refusal to act of any state executive officer or body in matters relating to water rights, the proceeding upon appeal shall be de novo as cases originally docketed in the district court unless otherwise provided by law. (As added November 7, 1967.)

NEW MEXICO STATUTES ANNOTATED

ARTICLE 5. APPROPRIATION AND USE OF SURFACE WATER

<http://www.amlegal.com/nxt/gateway.dll?f=templates&fn=default.htm&vid=newmexico:statutes>

72-5A-1. Short title. (1999)

This act [[72-5A-1](#) to [72-5A-17](#) NMSA 1978] may be cited as the "Ground Water Storage and Recovery Act".

72-5A-2. Legislative findings. (1999)

The legislature finds that:

A. conjunctive use and administration of both surface and ground waters are essential to the effective and efficient use of the state's limited water supplies; and

B. ground water recharge, storage and recovery have the potential to:

(1) offer savings in the costs of capital investment, operation and maintenance and flood control and may improve water and environmental quality;

(2) reduce the rate at which ground water levels will decline and may prevent overstressing or dewatering aquifer systems;

- (3) promote conservation of water within the state;
- (4) serve the public welfare of the state; and
- (5) may lead to more effective use of the state's water resources.

72-5A-3. Definitions. (2003)

As used in the Ground Water Storage and Recovery Act [72-5A-1 to 72-5A-17 NMSA 1978]:

A. "aquifer" means a geologic formation that contains sufficient saturated material to be capable of storing and transmitting water in usable quantities to a well;

B. "area of hydrologic effect" means the underground area where the water is stored and located, hydrologically connected surface waters, adjacent underground areas in which water rights exist that may be impaired, the land surface above the underground areas and any additional land surface used for seepage or infiltration;

C. "governmental entity" means the interstate stream commission, an Indian nation, tribe or pueblo or state political subdivision, including a municipality, county, acequia, irrigation district or conservancy district;

D. "project" means a permitted, engineered facility designed specifically, constructed and operated pursuant to the Ground Water Storage and Recovery Act [72-5A-1 to 72-5A-17 NMSA 1978], to add measured volumes of water by injection or infiltration to an aquifer or system of aquifers, to store the water underground and to recover it for beneficial use pursuant to the Ground Water Storage and Recovery Act but shall not include in situ leach mining operations or water flood operations for petroleum recovery that require approval by the state engineer outside the Ground Water Storage and Recovery Act; and

E. "stored water" means water that has been stored underground for the purpose of recovery and permitted pursuant to the Ground Water Storage and Recovery Act [72-5A-1 to 72-5A-17 NMSA 1978].

72-5A-4. Permit required. (1999)

A. No governmental entity may construct and operate a storage and recovery project in a declared ground water basin without a permit from the state engineer and other permits that may be required.

B. The state engineer shall prescribe application forms for a permit. The application shall include:

- (1) an application fee in the amount of five thousand dollars (\$5,000) plus five dollars (\$5.00) per acre-foot of the annual capacity of the proposed storage and recovery project, not to exceed fifty thousand dollars (\$50,000); an annual fee of fifty cents (\$.50) per acre-foot of water stored, payable upon submission of the annual report required by the Ground Water Storage and Recovery Act [72-5A-1 to 72-5A-17 NMSA 1978];

- (2) the name and mailing address of the applicant;
- (3) the name and mailing address of the owner of the land on which the applicant proposes to operate the project;
- (4) the name of the declared underground water basin in which the applicant proposes to operate the project;
- (5) the legal description of the location of the proposed project;
- (6) evidence of financial and technical capability;
- (7) the source, annual quantity and quality of water proposed to be injected and the quality of water in the receiving aquifer;
- (8) the identification, characteristics, capacity and location of each recharge and recovery well, including existing pre-basin wells, existing permitted wells and new wells sought to be drilled for recharge or recovery pursuant to the application and the identification of existing permitted and declared wells in the underground area effected [affected] by storage and recovery operations;
- (9) a description of the proposed project, including its capacity, plan of operation and percentage of anticipated recoverable water;
- (10) evidence that the applicant has a valid water right quantified by one of the following legal processes:
 - (a) a water rights adjudication;
 - (b) a consent decree;
 - (c) an act of congress, including a negotiated settlement ratified by congress;
 - (d) a contract pursuant to 43 USC 620 et seq.; or
 - (e) an agreement with an owner who has a valid water right subject to an application for a change in purpose, place of use or point of diversion;
- (11) a project plan that:
 - (a) shows that the project will not cause harm to users of land and water within the area of hydrologic effect;
 - (b) demonstrates that the project is hydrologically feasible;
 - (c) demonstrates that the project will not impair existing water rights or the state's interstate obligations;

(d) demonstrates that the project will not be contrary to the conservation of water within the state; and

(e) demonstrates that the project will not be detrimental to the public welfare of the state;

(12) a sworn statement executed by the owner of the land that the applicant is granted an easement and authorization to construct and operate the project on the site, if project facilities are located on land not owned by the applicant;

(13) copies of completed applications for all other permits required under state and federal law;

(14) the proposed duration of the permit; and

(15) any additional information required by the state engineer.

72-5A-5. Notice; protests; hearings; determinations; judicial review. (1999)

A. Upon receipt of an application for a permit to construct and operate a project, the state engineer shall endorse on the application the date it was received and shall keep a record of the application. The state engineer shall conduct an initial review of the application within sixty days of receipt. If the state engineer determines in the initial review that the application is incomplete, the state engineer shall notify the applicant of the application's deficiencies. The application shall remain incomplete until the applicant provides all information required by the Ground Water Storage and Recovery Act [72-5A-1 to 72-5A-17 NMSA 1978]. The state engineer may request additional information from the applicant and shall conduct an investigation of the project.

B. Within thirty days after determining that an application is complete, unless an extension is requested by the applicant, the applicant shall publish a notice of the application in a newspaper of general circulation in the county in which persons reside who could reasonably be expected to be affected by the project. The notice shall be given once a week for three consecutive weeks and shall contain:

(1) the legal description of the location of the proposed project;

(2) a brief description of the proposed project, including its capacity;

(3) the name of the applicant;

(4) the date of the last publication;

(5) the requirements for an objection; and

(6) disclosure that objections to the application shall be filed within ten days after the last publication of the notice.

C. A person objecting that the granting of the application will impair the objector's water right, will be contrary to the conservation of water or will be detrimental to the public welfare and showing that the objector will be substantially and specifically affected by the granting of

the application shall have standing to file objections or protests; provided, however, that the state or any of its branches, agencies, departments, boards, instrumentalities or institutions, and all political subdivisions of the state and their agencies, instrumentalities and institutions shall have standing to file objections or protests.

D. An objection shall be filed in writing, include the name and mailing address of the objector, identify the grounds for the objection and include the signature of the objector or his legal representative. The state engineer shall schedule a hearing on the application and provide at least thirty days' notice of the hearing, by certified mail, to the applicant and any objector.

E. After the expiration of the time for filing objections, if no objections have been filed, the state engineer shall, if he finds that the application meets the requirements of the Ground Water Storage and Recovery Act, issue a permit to the applicant to construct the project to store and recover all or a part of the waters applied for, as conditioned by the state engineer.

F. A person or governmental entity aggrieved by any decision of the state engineer may appeal that decision to the district court pursuant to Section 72-7-1 NMSA 1978.

72-5A-6. State engineer; powers and duties; permit; monitoring requirements. (1999)

A. The state engineer shall issue a permit to construct and operate a project if the applicant has provided a reasonable demonstration that:

- (1) the applicant has the technical and financial capability to construct and operate the project;
- (2) the project is hydrologically feasible;
- (3) the project will not impair existing water rights or the state's interstate obligations;
- (4) the project will not be contrary to the conservation of water within the state;
- (5) the project will not be detrimental to the public welfare of the state;
- (6) the applicant has completed applications for all permits required by state and federal law;
- (7) the applicant has a valid water right quantified by one of the following legal processes:
 - (a) a water rights adjudication;
 - (b) a consent decree;
 - (c) an act of congress, including a negotiated settlement ratified by congress;
 - (d) a contract pursuant to 43 USC 620 et seq.; or
 - (e) an agreement with an owner who has a valid water right subject to an application for a change in purpose, place of use or point of diversion; and

(8) that [sic] the project will not cause harm to users of land and water within the area of hydrologic effect;

B. A permit for a project shall include:

(1) the name and mailing address of the person to whom the permit is issued;

(2) the name of the declared underground water basin in which the project will be located;

(3) the capacity and plan of operation of the project;

(4) any monitoring program required;

(5) all conditions required by or regulations adopted pursuant to the Ground Water Storage and Recovery Act [72-5A-1 to 72-5A-17 NMSA 1978]; and

(6) other information the state engineer determines to be necessary.

C. The permit shall not become effective until the applicant obtains all other required state and federal permits.

D. The state engineer shall adopt regulations to carry out the provisions of the Ground Water Storage and Recovery Act, including monitoring the operation of projects and their effects on other water users in the area of hydrologic effect, including an Indian nation, tribe or pueblo. In determining monitoring requirements, the state engineer shall cooperate with all government entities that regulate and monitor the quality of water, including the department of environment.

72-5A-7. Modification and assignment of project permit. (1999)

A. The state engineer may modify the conditions of a permit if he finds that modifications are necessary and will not impair existing water rights or the water quality of the aquifer. The applicant shall provide notice of any proposed modifications as required by the Ground Water Storage and Recovery Act [72-5A-1 to 72-5A-17 NMSA 1978] for new applications. Objections may be filed in the manner of objections to new applications.

B. The permittee may apply to the state engineer for approval to assign a permit to another person. The state engineer shall approve the assignment if the state engineer determines that all provisions of the Ground Water Storage and Recovery Act will be met.

72-5A-8. Stored water not public; stored water not subject to forfeiture; use or exchange of recovered water. (1999)

A. Water added to an aquifer or system of aquifers to be stored for subsequent diversion and application to beneficial use pursuant to a project permit is not public water and is not subject to forfeiture pursuant to Section 72-5-28 or 72-12-8 NMSA 1978.

B. A permittee may use water recovered only for the same purposes for which the water was authorized before it was stored, unless an application for a change in the purpose of use, place of use or point of diversion is filed and approved pursuant to Section 72-5-23, 72-5-24 or 72-12-7 NMSA 1978, as applicable.

72-5A-9. Storage account to be established; limit on amount of water recovered. (1999)

The state engineer shall establish a storage account for each project. If the project has stored water from more than one source, he shall establish subaccounts for each source of water. A permittee may recover only the recoverable amount of stored water from a well. For purposes of this section, "recoverable amount" means that amount of water, as determined by the state engineer, that has reached the aquifer, remained within the area of hydrologic effect and is conducive to recovery without impairment to existing uses.

72-5A-10. Annual report to state engineer; penalty for failure to file. (1999)

A. Each permittee shall file an annual report with the state engineer that includes:

- (1) the total quantity of stored water and recovered water;
- (2) the water quality of the stored water, the receiving aquifer and the recovered water;
- (3) a sworn affidavit attesting to the truthfulness and accuracy of the report's data; and
- (4) a measurement of the static level of the water table.

B. The annual report shall be maintained on a calendar year basis and shall be filed with the state engineer no later than March 31 for the preceding year. If a governmental entity required to file an annual report fails to do so when due, the state engineer may assess and impose a penalty of five hundred dollars (\$500) for each month or portion of a month that the report is not filed. The total penalty assessed annually pursuant to this subsection shall not exceed five thousand dollars (\$5,000).

C. All records and reports required to be maintained and filed pursuant to this section shall be in a form prescribed by the state engineer.

72-5A-11. Revocation or suspension of permits; orders to cease and desist; injunction. (1999)

A. The state engineer may periodically review a project to determine if the permittee is complying with the terms and conditions of the permit. The state engineer may permanently revoke or temporarily suspend a permit for good cause after an investigation and a hearing before the state engineer or a hearing officer appointed by him. Notice shall be sent, by certified mail, to the permittee at least thirty days before any hearing on a revocation or suspension disclosing the permittee's alleged failure to comply with the permit's terms and conditions.

B. Except as otherwise provided in this section, if the state engineer has reason to believe that a person or governmental entity has violated a provision of the Ground Water Storage and Recovery Act [72-5A-1 to 72-5A-17 NMSA 1978] or a permit issued or regulation adopted pursuant to that act, the state engineer may issue a written notice that the person or governmental entity appear and show cause, at a hearing before the state engineer not less than fifteen days after the receipt of the notice, why the person or governmental entity should not be ordered to cease and desist from the violation. The notice shall inform the person or governmental entity of the date, time and place of the hearing and the consequences of the person's or governmental entity's failure to appear.

C. If the state engineer finds that a person or governmental entity is constructing or operating a project in violation of the Ground Water Storage and Recovery Act, the state engineer may issue a temporary order for the person or governmental entity to cease and desist the construction or operation pending final action by the state engineer pursuant to this section. The order shall include written notice to the person or governmental entity of the date, time and place where the person or governmental entity shall appear at a hearing before the state engineer to show cause why the temporary order should be vacated. The hearing shall be held not less than fifteen days after the date of the order.

D. After a hearing pursuant to this section, or after the expiration of the time to appear, the state engineer shall issue a decision and order. The decision and order shall be in a form as the state engineer determines to be reasonable and appropriate and may include a determination of violation, an order to cease and desist, the recommendation of a civil penalty and an order directing that positive steps be taken to abate or ameliorate any harm or damage arising from the violation. Any person or governmental entity affected may appeal the decision to the district court pursuant to Section 72-7-1 NMSA 1978.

E. If a person or governmental entity continues a violation after the state engineer has issued a decision and order pursuant to this section or a temporary order pursuant to this section, the state engineer may apply for a temporary restraining order or a preliminary or permanent injunction from the district court. A decision to seek injunctive relief does not preclude other forms of relief or enforcement against a violator.

72-5A-12. Penalties. (1999)

A. A person who or governmental entity that is determined to be in violation of the Ground Water Storage and Recovery Act [72-5A-1 to 72-5A-17 NMSA 1978] or a permit issued or rules adopted pursuant to the act may be assessed a civil penalty in an amount not exceeding:

(1) one hundred dollars (\$100) per day of violation not directly related to the illegal recovery or use of stored water; or

(2) ten thousand dollars (\$10,000) per day of violation directly related to the illegal recovery or use of stored water.

B. An action to recover penalties pursuant to this section shall be brought by the state engineer in the district court in which the violation occurred.

72-5A-13. Conservation fee exemptions. (1999)

Conservation fees collected pursuant to Section 74-1-13 NMSA 1978 shall be charged only on water that is treated and stored underground and not on the same water subsequently recovered.

72-5A-14. Obligations to Indian nations, tribes or pueblos. (1999)

Nothing in the Ground Water Storage and Recovery Act [72-5A-1 to 72-5A-17 NMSA 1978] shall be construed to affect the obligations of the United States to Indian nations, tribes or pueblos or to impair the rights of Indian nations, tribes or pueblos.

72-5A-15. Non-exemption from prior appropriation doctrine. (1999)

Unless required by interstate obligations, nothing in the Ground Water Storage and Recovery Act [72-5A-1 to 72-5A-17 NMSA 1978] shall be construed to exempt stored water from the provision that priority in time shall give the better right pursuant to Chapter 72 NMSA 1978 or priority of appropriation shall give the better right pursuant to Article 16, Section 2 of the constitution of New Mexico.

72-5A-16. Limitation of determination. (1999)

Any determination made by the state engineer for purposes of the Ground Water Storage and Recovery Act [72-5A-1 to 72-5A-17 NMSA 1978] is not binding in any other proceeding.

72-5A-17. Delayed implementation. (1999)

A governmental entity shall not submit an application pursuant to the Ground Water Storage and Recovery Act [72-5A-1 to 72-5A-17 NMSA 1978] and the state engineer shall not process an application, issue a regulation pursuant to that act or implement any part of that act unless the state engineer has been appropriated enough money or has sufficient resources to carry out the provisions of that act.

OREGON

OREGON REVISED STATUTES¹

CHAPTER 537 — APPROPRIATION OF WATER GENERALLY

<http://www.leg.state.or.us/ors/537.html>

537.015 Findings.

The Legislative Assembly finds that:

(1) It is desirable to encourage:

- (a) Restoration or enhancement of wetlands;
- (b) Construction of stream and riparian restoration or enhancement projects; and
- (c) Storm water quality and quantity projects.

(2) Often the restoration or enhancement of wetlands, the construction of stream and riparian restoration projects and management of storm water quality and quantity involve a wide variety of uses of the waters of the state. [1993 c.654 §2]

537.535 Unlawful use or appropriation of ground water, including well construction and operation.

(1) No person or public agency shall use or attempt to use any ground water, construct or attempt to construct any well or other means of developing and securing ground water or operate or permit the operation of any well owned or controlled by such person or public agency except upon compliance with ORS 537.505 to 537.795 and 537.992 and any applicable order or rule adopted by the Water Resources Commission under ORS 537.505 to 537.795 and 537.992.

(2) Except for those uses exempted under ORS 537.545, the use of ground water for any purpose, without a permit issued under ORS 537.625 or registration under ORS 537.605, is an unlawful appropriation of ground water. [1955 c.708 §4; 1957 c.341 §5; subsection (2) enacted as 1961 c.668 §2; 1985 c.673 §47]

536.025 Duty of commission; delegation to Water Resources Director; exception.

(1) It is the function of the Water Resources Commission to establish the policies for the operation of the Water Resources Department in a manner consistent with the policies and purposes of ORS 196.600 to 196.905, 537.525, 541.010 to 541.320, 541.430 to 541.545, 541.700 to 541.990 and ORS chapters 536 to 540, 542 and 543. In addition, the commission shall perform any other duty vested in it by law.

(2) Except for the commission's power to adopt rules, the commission may delegate to the Water Resources Director the exercise or discharge in the commission's name of any power, duty or function of whatever character, vested in or imposed by law upon the commission. The official act of the director acting in the commission's name and by the commission's authority shall be considered to be an official act of the commission.

¹ The Oregon Constitution does not address groundwater.

(3) The commission may delegate to the director the authority to conduct a public hearing relating to the adoption or amendment of a basin program as provided in ORS 536.300. However, the commission may not delegate to the director the authority to adopt or amend a basin program. [1985 c.673 §4]

537.780 Powers of Water Resources Commission; rules; limitations on authority.

(1) In the administration of ORS 537.505 to 537.795 and 537.992, the Water Resources Commission may:

(a) Require that all flowing wells be capped or equipped with valves so that the flow of ground water may be completely stopped when the ground water is not actually being applied to a beneficial use.

(b) Enforce:

(A) General standards for the construction and maintenance of wells and their casings, fittings, valves, pumps and back-siphoning prevention devices; and

(B) Special standards for the construction and maintenance of particular wells and their casings, fittings, valves and pumps.

(c)(A) Adopt by rule and enforce when necessary to protect the ground water resource, standards for the construction, maintenance, abandonment or use of any hole through which ground water may be contaminated; or

(B) Enter into an agreement with, or advise, other state agencies that are responsible for holes other than wells through which ground water may be contaminated in order to protect the ground water resource from contamination.

(d) Enforce uniform standards for the scientific measurement of water levels and of ground water flowing or withdrawn from wells.

(e) Enter upon any lands for the purpose of inspecting wells, including wells exempt under ORS 537.545, casings, fittings, valves, pipes, pumps, measuring devices and back-siphoning prevention devices.

(f) Prosecute actions and suits to enjoin violations of ORS 537.505 to 537.795 and 537.992, and appear and become a party to any action, suit or proceeding in any court or before any administrative body when it appears to the satisfaction of the commission that the determination of the action, suit or proceeding might be in conflict with the public policy expressed in ORS 537.525.

(g) Call upon and receive advice and assistance from the Environmental Quality Commission or any other public agency or any person, and enter into cooperative agreements with a public agency or person.

(h) Adopt and enforce rules necessary to carry out the provisions of ORS 537.505 to 537.795 and 537.992 including but not limited to rules governing:

(A) The form and content of registration statements, certificates of registration, applications for permits, permits, certificates of completion, ground water right certificates, notices, proofs, maps, drawings, logs and licenses;

(B) Procedure in hearings held by the commission; and

(C) The circumstances under which the helpers of persons operating well drilling machinery may be exempt from the requirement of direct supervision by a licensed water well constructor.

(i) In accordance with applicable law regarding search and seizure, apply to any court of competent jurisdiction for a warrant to seize any well drilling machine used in violation of ORS 537.747 or 537.753.

(2) Notwithstanding any provision of subsection (1) of this section, in administering the provisions of ORS 537.505 to 537.795 and 537.992, the commission may not:

(a) Adopt any rule restricting ground water use in an area unless the rule is based on substantial evidence in the record of the Water Resources Department to justify the imposition of restrictions.

(b) Make any determination that a ground water use will impair, substantially interfere or unduly interfere with a surface water source unless the determination is based on substantial evidence. Such evidence may include reports or studies prepared with relation to the specific use or may be based on the application of generally accepted hydrogeological principles to the specific use.

(3) At least once every three years, the commission shall review any rule adopted under subsection (2) of this section that restricts ground water use in an area. The review process shall include public notice and an opportunity to comment on the rule. [1955 c.708 §32; 1981 c.416 §7; 1985 c.673 §73; 1989 c.833 §60; 1995 c.549 §2]

536.025 Duty of commission; delegation to Water Resources Director; exception.

(1) It is the function of the Water Resources Commission to establish the policies for the operation of the Water Resources Department in a manner consistent with the policies and purposes of ORS 196.600 to 196.905, 537.525, 541.010 to 541.320, 541.430 to 541.545, 541.700 to 541.990 and ORS chapters 536 to 540, 542 and 543. In addition, the commission shall perform any other duty vested in it by law.

(2) Except for the commission's power to adopt rules, the commission may delegate to the Water Resources Director the exercise or discharge in the commission's name of any power, duty or function of whatever character, vested in or imposed by law upon the commission. The official act of the director acting in the commission's name and by the commission's authority shall be considered to be an official act of the commission.

(3) The commission may delegate to the director the authority to conduct a public hearing relating to the adoption or amendment of a basin program as provided in ORS 536.300.

However, the commission may not delegate to the director the authority to adopt or amend a basin program. [1985 c.673 §4]

536.037 Functions of director.

(1) Subject to policy direction by the Water Resources Commission, the Water Resources Director shall:

- (a) Be administrative head of the Water Resources Department;
- (b) Have power, within applicable budgetary limitations, and in accordance with ORS chapter 240, to hire, assign, reassign and coordinate personnel of the department;
- (c) Administer and enforce the laws of the state concerning the water resources of this state;
- (d) Be authorized to participate in any proceeding before any public officer, commission or body of the United States or any state for the purpose of representing the citizens of Oregon concerning the water resources of this state;
- (e) Have power to enter upon any private property in the performance of the duties of the director, doing no unnecessary injury to the private property; and
- (f) Coordinate any activities of the department related to a watershed enhancement project approved by the Oregon Watershed Enhancement Board under ORS 541.375 with activities of other cooperating state and federal agencies participating in the project.

(2) In addition to duties otherwise required by law, the director shall prescribe internal policies and procedures for the government of the department, the conduct of its employees, the assignment and performance of its business and the custody, use and preservation of its records, papers and property in a manner consistent with applicable law.

(3) The director may delegate to any employee of the department the exercise or discharge in the director's name of any power, duty or function of whatever character, vested in or imposed by law upon the director. The official act of a person so acting in the director's name and by the director's authority shall be considered to be an official act of the director. [1985 c.673 §8; 1987 c.734 §14]

537.525 Policy.

The Legislative Assembly recognizes, declares and finds that the right to reasonable control of all water within this state from all sources of water supply belongs to the public, and that in order to insure the preservation of the public welfare, safety and health it is necessary that:

(1) Provision be made for the final determination of relative rights to appropriate ground water everywhere within this state and of other matters with regard thereto through a system of registration, permits and adjudication.

(2) Rights to appropriate ground water and priority thereof be acknowledged and protected, except when, under certain conditions, the public welfare, safety and health require otherwise.

(3) Beneficial use without waste, within the capacity of available sources, be the basis, measure and extent of the right to appropriate ground water.

(4) All claims to rights to appropriate ground water be made a matter of public record.

(5) Adequate and safe supplies of ground water for human consumption be assured, while conserving maximum supplies of ground water for agricultural, commercial, industrial, thermal, recreational and other beneficial uses.

(6) The location, extent, capacity, quality and other characteristics of particular sources of ground water be determined.

(7) Reasonably stable ground water levels be determined and maintained.

(8) Depletion of ground water supplies below economic levels, impairment of natural quality of ground water by pollution and wasteful practices in connection with ground water be prevented or controlled within practicable limits.

(9) Whenever wasteful use of ground water, impairment of or interference with existing rights to appropriate surface water, declining ground water levels, alteration of ground water temperatures that may adversely affect priorities or impair the long-term stability of the thermal properties of the ground water, interference among wells, thermal interference among wells, overdrawing of ground water supplies or pollution of ground water exists or impends, controlled use of the ground water concerned be authorized and imposed under voluntary joint action by the Water Resources Commission and the ground water users concerned whenever possible, but by the commission under the police power of the state except as specified in ORS 537.796, when such voluntary joint action is not taken or is ineffective.

(10) Location, construction, depth, capacity, yield and other characteristics of and matters in connection with wells be controlled in accordance with the purposes set forth in this section.

(11) All activities in the state that affect the quality or quantity of ground water shall be consistent with the goal set forth in ORS 468B.155. [1955 c.708 §2; 1985 c.673 §46; 1989 c.201 §2; 1989 c.833 §56]

540.610

Use as measure of water right; presumption of forfeiture of right for nonuse; basis for rebutting presumption; confirmation of rights of municipalities.

(1) Beneficial use shall be the basis, the measure and the limit of all rights to the use of water in this state. Whenever the owner of a perfected and developed water right ceases or fails to use all or part of the water appropriated for a period of five successive years, the failure to use shall establish a rebuttable presumption of forfeiture of all or part of the water right.

(2) Upon a showing of failure to use beneficially for five successive years, the appropriator has the burden of rebutting the presumption of forfeiture by showing one or more of the following:

- (a) The water right is for use of water, or rights of use, acquired by cities and towns in this state, by appropriation or by purchase, for all reasonable and usual municipal purposes.
- (b) A finding of forfeiture would impair the rights of such cities and towns to the use of water, whether acquired by appropriation or purchase, or heretofore recognized by act of the legislature, or which may hereafter be acquired.
- (c) The use of water, or rights of use, are appurtenant to property obtained by the Department of Veterans' Affairs under ORS 407.135 or 407.145 for three years after the expiration of redemptions as provided in ORS 23.530 to 23.600 while the land is held by the Director of Veterans' Affairs, even if during such time the water is not used for a period of more than five successive years.
- (d) The use of water, or rights of use, under a water right, if the owner of the property to which the right is appurtenant is unable to use the water due to economic hardship as defined by rule by the Water Resources Commission.
- (e) The period of nonuse occurred during a period of time within which land was withdrawn from use in accordance with the Act of Congress of May 28, 1956, chapter 327 (7 U.S.C. 1801-1814; 1821-1824; 1831-1837), or the Federal Conservation Reserve Program, Act of Congress of December 23, 1985, chapter 198 (16 U.S.C. 3831-3836, 3841-3845). If necessary, in a cancellation proceeding under this section, the water right holder rebutting the presumption under this paragraph shall provide documentation that the water right holder's land was withdrawn from use under a federal reserve program.
- (f) The end of the alleged period of nonuse occurred more than 15 years before the date upon which evidence of nonuse was submitted to the commission or the commission initiated cancellation proceedings under ORS 540.631, whichever occurs first.
- (g) The owner of the property to which the water right was appurtenant is unable to use the water because the use of water under the right is discontinued under an order of the commission under ORS 537.775.
- (h) The nonuse occurred during a period of time within which the water right holder was using reclaimed water in lieu of using water under an existing water right.
- (i) The nonuse occurred during a period of time within which the water right holder was reusing water through land application as authorized by ORS 537.141 (1)(i) or 537.545 (1)(g) in lieu of using water under an existing water right.
- (j) The owner or occupant of the property to which the water right is appurtenant was unable to make full beneficial use of the water because water was not available. A water right holder rebutting the presumption under this paragraph shall provide evidence that the water right holder was ready, willing and able to use the water had it been available.
- (k) The holder of a water right is prohibited by law from using the water. If the prohibition is subject to remedial action that would allow the use of the water, the water right holder shall

provide evidence that the water right holder is conducting the remedial action with reasonable diligence.

(l) The nonuse occurred during a period of time within which the exercise of all or part of the water right was not necessary due to climatic conditions, so long as the water right holder had a facility capable of handling the full allowed rate and duty, and was otherwise ready, willing and able to use the entire amount of water allowed under the water right.

(m) The nonuse occurred during a period of time within which the water was included in a transfer application pending before the Water Resources Department.

(n) The nonuse occurred during a period of time within which the water was included in an application under ORS 541.327 pending before the Water Resources Department.

(3) Notwithstanding subsection (1) of this section, if the owner of a perfected and developed water right uses less water to accomplish the beneficial use allowed by the right, the right is not subject to forfeiture so long as:

(a) The user has a facility capable of handling the entire rate and duty authorized under the right; and

(b) The user is otherwise ready, willing and able to make full use of the right.

(4) The right of all cities and towns in this state to acquire rights to the use of the water of natural streams and lakes, not otherwise appropriated, and subject to existing rights, for all reasonable and usual municipal purposes, and for such future reasonable and usual municipal purposes as may reasonably be anticipated by reason of growth of population, or to secure sufficient water supply in cases of emergency, is expressly confirmed.

(5) After a water right is forfeited under subsection (1) of this section, the water that was the subject of use shall revert to the public and become again the subject of appropriation in the manner provided by law, subject to existing priorities. [Amended by 1985 c.689 §5; 1987 c.339 §4; 1989 c.699 §1; 1989 c.833 §61a; 1991 c.370 §6; 1995 c.356 §2; 1995 c.366 §1; 1997 c.42 §5; 1997 c.244 §5; 1997 c.283 §1; 1999 c.335 §3; 1999 c.804 §3]

537.525 Policy.

The Legislative Assembly recognizes, declares and finds that the right to reasonable control of all water within this state from all sources of water supply belongs to the public, and that in order to insure the preservation of the public welfare, safety and health it is necessary that:

(1) Provision be made for the final determination of relative rights to appropriate ground water everywhere within this state and of other matters with regard thereto through a system of registration, permits and adjudication.

(2) Rights to appropriate ground water and priority thereof be acknowledged and protected, except when, under certain conditions, the public welfare, safety and health require otherwise.

(3) Beneficial use without waste, within the capacity of available sources, be the basis, measure and extent of the right to appropriate ground water.

(4) All claims to rights to appropriate ground water be made a matter of public record.

(5) Adequate and safe supplies of ground water for human consumption be assured, while conserving maximum supplies of ground water for agricultural, commercial, industrial, thermal, recreational and other beneficial uses.

(6) The location, extent, capacity, quality and other characteristics of particular sources of ground water be determined.

(7) Reasonably stable ground water levels be determined and maintained.

(8) Depletion of ground water supplies below economic levels, impairment of natural quality of ground water by pollution and wasteful practices in connection with ground water be prevented or controlled within practicable limits.

(9) Whenever wasteful use of ground water, impairment of or interference with existing rights to appropriate surface water, declining ground water levels, alteration of ground water temperatures that may adversely affect priorities or impair the long-term stability of the thermal properties of the ground water, interference among wells, thermal interference among wells, overdrawing of ground water supplies or pollution of ground water exists or impends, controlled use of the ground water concerned be authorized and imposed under voluntary joint action by the Water Resources Commission and the ground water users concerned whenever possible, but by the commission under the police power of the state except as specified in ORS 537.796, when such voluntary joint action is not taken or is ineffective.

(10) Location, construction, depth, capacity, yield and other characteristics of and matters in connection with wells be controlled in accordance with the purposes set forth in this section.

(11) All activities in the state that affect the quality or quantity of ground water shall be consistent with the goal set forth in ORS 468B.155. [1955 c.708 §2; 1985 c.673 §46; 1989 c.201 §2; 1989 c.833 §56]

537.705 Ground water appurtenant; change in use, place of use or point of appropriation.

All ground water used in this state for any purpose shall remain appurtenant to the premises upon which it is used and no change in use or place of use of any ground water for any purpose may be made without compliance with a procedure as nearly as possible like that set forth in ORS 540.520 and 540.530. However, the owner of any ground water right may, upon compliance with a procedure as nearly as possible like that set forth in ORS 540.520 and 540.530, change the use and place of use, the point of appropriation or the use theretofore made of the ground water in all cases without losing priority of the right theretofore established. [1955 c.708 §22]

536.340

Classification of water as to highest and best use and quantity of use; enforcement of laws concerning loss of water rights; prescribing preferences for future uses.

(1) Subject at all times to existing rights and priorities to use waters of this state, the Water Resources Commission:

(a) May, by a water resources statement referred to in ORS 536.300 (2), classify and reclassify the lakes, streams, underground reservoirs or other sources of water supply in this state as to the highest and best use and quantities of use thereof for the future in aid of an integrated and balanced program for the benefit of the state as a whole. The commission may so classify and reclassify portions of any such sources of water supply separately.

Classification or reclassification of sources of water supply as provided in this subsection has the effect of restricting the use and quantities of use thereof to the uses and quantities of uses specified in the classification or reclassification, and no other uses or quantities of uses except as approved by the commission under ORS 536.370 to 536.390 or as accepted by the commission under ORS 536.295. Restrictions on use and quantities of use of a source of water supply resulting from a classification or reclassification under this subsection shall apply to the use of all waters of this state affected by the classification or reclassification, and shall apply to uses listed in ORS 537.545 that are initiated after the classification or reclassification that imposes the restriction.

(b) Shall diligently enforce laws concerning cancellation, release and discharge of excessive unused claims to waters of this state to the end that such excessive and unused amounts may be made available for appropriation and beneficial use by the public.

(c) May, by a water resources statement referred to in ORS 536.300 (2) and subject to the preferential uses named in ORS 536.310 (12), prescribe preferences for the future for particular uses and quantities of uses of the waters of any lake, stream or other source of water supply in this state in aid of the highest and best beneficial use and quantities of use thereof. In prescribing such preferences the commission shall give effect and due regard to the natural characteristics of such sources of water supply, the adjacent topography, the economy of such sources of water supply, the economy of the affected area, seasonal requirements of various users of such waters, the type of proposed use as between consumptive and nonconsumptive uses and other pertinent data.

(2) In classifying or reclassifying a source of water supply or prescribing preferences for the future uses of a source of water supply under subsection (1) of this section, the commission shall:

(a) Comply with the requirements set forth in the Water Resources Department coordination program developed pursuant to ORS 197.180; and

(b) Cause notice of the hearing held under ORS 536.300 (3) to be published in a newspaper of general circulation once each week for four successive weeks in each county:

(A) In which waters affected by the action of the commission under subsection (1) of this section are located; or

(B) That is located within the basin under consideration.

(3) Before beginning any action under subsection (2) of this section that would limit new ground water uses that are exempt under ORS 537.545 from the requirement to obtain a water right, the commission shall:

(a) Review the proposed action to determine whether the proposal is consistent with ORS 537.780;

(b) Provide an opportunity for review by:

(A) Any member of the Legislative Assembly who represents a district where the proposed action would apply; and

(B) Any interim committee of the Legislative Assembly responsible for water-related issues; and

(c) Receive and consider a recommendation on the proposal from the ground water advisory committee appointed under ORS 536.090. [1955 c.707 §10(6); 1963 c.414 §1; 1989 c.9 §2; 1989 c.833 §54; 1997 c.510 §1]

390.835

(9)(a) The provisions of this section do not apply to a water right application for the use of ground water as defined in ORS 537.515, except upon a finding by the Water Resources Director based on a preponderance of evidence that the use of ground water will measurably reduce the surface water flows necessary to maintain the free-flowing character of a scenic waterway in quantities necessary for recreation, fish and wildlife.

(b) The Water Resources Department shall review every application for the use of ground water to determine whether to make the finding specified in paragraph (a) of this subsection. The finding shall be based upon the application of generally accepted hydrogeologic methods using relevant and available field information concerning the proposed use.

(c) In making the determination required by paragraph (a) of this subsection, the Water Resources Department shall consider the timing of projected impacts of the proposed use in relation to other factors, including but not limited to: Changing climate, recharge, incidental precipitation, out-of-stream appropriations and return flows.

(d) If the Water Resources Director makes the finding specified in paragraph (a) of this subsection, the Water Resources Director shall issue an order denying the application unless:

(A) Mitigation is provided in accordance with subsection (10) of this section; or

(B) The applicant submits evidence to overcome the finding under paragraph (a) of this subsection.

(e) Except as provided under subsection (13) of this section, if the Water Resources Director does not make the finding specified in paragraph (a) of this subsection, the Water Resources

Director shall issue an order approving the application if the application otherwise meets the requirements of ORS 537.505 to 537.795.

(f) A protest of any order issued under this subsection may be filed in the same manner as a protest on any application for a right to appropriate ground water.

(g) Each water right permit and certificate for appropriation of ground water issued after July 19, 1995, for which a source of appropriation is within or above a scenic waterway shall be conditioned to allow the regulation of the use if analysis of data available after the permit or certificate is issued discloses that the appropriation will measurably reduce the surface water flows necessary to maintain the free-flowing character of a scenic waterway in quantities necessary for recreation, fish and wildlife in effect as of the priority date of the right or as those quantities may be subsequently reduced.

(h) This subsection does not limit the use of ground water for a use exempted under ORS 537.545.

537.515 Definitions for ORS 537.505 to 537.795 and 537.992.

As used in ORS 537.505 to 537.795 and 537.992, unless the context requires otherwise:

9) "Well" means any artificial opening or artificially altered natural opening, however made, by which ground water is sought or through which ground water flows under natural pressure or is artificially withdrawn. "Well" does not include a temporary hole drilled for the purpose of gathering geotechnical ground water quality or ground water level information, a natural spring or a hole drilled for the purpose of:

- (a) Prospecting, exploration or production of oil or gas;
- (b) Prospecting or exploration for geothermal resources, as defined in ORS 522.005;
- (c) Production of geothermal resources, as defined in ORS 522.005, derived from a depth of greater than 2,000 feet; or
- (d) Exploration for minerals as defined in ORS 517.750 and 517.910.

537.545 Exempt uses.

(1) Except as provided in subsection (4) of this section, no registration, certificate of registration, application for a permit, permit, certificate of completion or ground water right certificate under ORS 537.505 to 537.795 and 537.992 is required for the use of ground water for:

- (a) Stockwatering purposes;
- (b) Watering any lawn or noncommercial garden not exceeding one-half acre in area;
- (c) Watering the lawns, grounds and fields not exceeding 10 acres in area of schools located within a critical ground water area established pursuant to ORS 537.730 to 537.740;
- (d) Single or group domestic purposes in an amount not exceeding 15,000 gallons a day;

(e) Down-hole heat exchange purposes;

(f) Any single industrial or commercial purpose in an amount not exceeding 5,000 gallons a day; or

(g) Land application, so long as the ground water:

(A) Has first been appropriated and used under a permit or certificate issued under ORS 537.625 or 537.630 for a water right issued for industrial purposes or a water right authorizing use of water for confined animal feeding purposes;

(B) Is reused for irrigation purposes and the period of irrigation is a period during which the reused water has never been discharged to the waters of the state; and

(C) Is applied pursuant to a permit issued by the Department of Environmental Quality or the State Department of Agriculture under either ORS 468B.050 to construct and operate a disposal system or ORS 468B.215 to operate a confined animal feeding operation.

(2) The use of ground water for a use exempt under subsection (1) of this section, to the extent that it is beneficial, constitutes a right to appropriate ground water equal to that established by a ground water right certificate issued under ORS 537.700. Except for the use of water under subsection (1)(g) of this section, the Water Resources Commission by rule may require any person or public agency using ground water for any such purpose to furnish information with regard to such ground water and the use thereof. For a use of water described in subsection (1)(g) of this section, the Department of Environmental Quality or the State Department of Agriculture shall provide to the Water Resources Department a copy of the permit issued under ORS 468B.050 or 468B.215 authorizing the land application of ground water for reuse. The permit shall provide the information regarding the place of use of such water and the nature of the beneficial reuse.

(3) If it is necessary for the Water Resources Department to regulate the use or distribution of ground water, including uses exempt under subsection (1) of this section, the department shall use as a priority date for the exempt uses the date indicated in the log for the well filed with the department under ORS 537.765 or other documentation provided by the well owner showing when water use began.

(4) After declaration of a ground water management area, any person intending to make a new use of ground water that is exempt under subsection (1) of this section shall apply for a ground water permit under ORS 537.505 to 537.795 and 537.992 to use the water. Any person applying for a permit for an otherwise exempt use shall not be required to pay a fee for the permit. [1955 c.708 §5; 1983 c.372 §1; 1983 c.698 §1; 1985 c.673 §48; 1989 c.99 §1; 1989 c.833 §57; 1997 c.244 §3; 2001 c.248 §12]

537.621

Review of application; proposed final order; presumption that use will ensure preservation of public welfare, safety and health; flow rate and duty; standing; protest; final order; contested case hearing.

(2) In reviewing the application under subsection (1) of this section, the department shall determine whether the proposed use will ensure the preservation of the public welfare, safety and health as described in ORS 537.525. The department shall presume that a proposed use will ensure the preservation of the public welfare, safety and health if the proposed use is allowed in the applicable basin program established pursuant to ORS 536.300 and 536.340 or given a preference under ORS 536.310 (12), if water is available, if the proposed use will not injure other water rights and if the proposed use complies with rules of the Water Resources Commission. This shall be a rebuttable presumption and may be overcome by a preponderance of evidence that either:

- (a) One or more of the criteria for establishing the presumption are not satisfied; or
- (b) The proposed use would not ensure the preservation of the public welfare, safety and health as demonstrated in comments, in a protest under subsection (7) of this section or in a finding of the department that shows:
 - (A) The specific aspect of the public welfare, safety and health under ORS 537.525 that would be impaired or detrimentally affected; and
 - (B) Specifically how the identified aspect of the public welfare, safety and health under ORS 537.525 would be impaired or be adversely affected.

537.730 Designation of critical ground water area; notice.

- (1) The Water Resources Commission by rule may designate an area of the state a critical ground water area if:
- (a) Ground water levels in the area in question are declining or have declined excessively;
 - (b) The Water Resources Department finds a pattern of substantial interference between wells within the area in question;
 - (c) The department finds a pattern of interference or potential interference between wells of ground water claimants or appropriators within the area in question with the production of geothermal resources from an area regulated under ORS chapter 522;
 - (d) The department finds a pattern of substantial interference between wells within the area in question and:
 - (A) An appropriator of surface water whose water right has an earlier priority date; or
 - (B) A restriction imposed on surface water appropriation or a minimum perennial stream flow that has an effective date earlier than the priority date of the ground water appropriation;
 - (e) The available ground water supply in the area in question is being or is about to be overdrawn;

(f) The purity of the ground water in the area in question has been or reasonably may be expected to become polluted to an extent contrary to the public welfare, health and safety; or

(g) Ground water temperatures in the area in question are expected to be, are being or have been substantially altered except as specified in ORS 537.796.

(2) The proceeding to designate a critical ground water area shall be conducted according to the provisions under ORS 183.310 to 183.550 applicable to the adoption of rules by an agency, except that a hearing on a critical ground water declaration shall occur at least 60 days after notice has been given.

(3) In addition to the notice requirements under ORS 183.335, the department shall give notice by regular mail to:

(a) The owners of record of all ground water registrations, permits and certificates for water use within the affected area; and

(b) Each water well constructor licensed under ORS 537.747.

(4) If the department satisfies the notice requirements under ORS 183.335 and subsection (3) of this section, a person shall not contest a critical ground water area designation on grounds of failure to receive notice by regular mail. [1955 c.708 §26; 1957 c.341 §8; 1981 c.589 §5; 1985 c.673 §62; 1987 c.442 §1; 1989 c.201 §4; 1991 c.400 §4]

537.735 Rules designating critical ground water area.

(1) A rule adopted by the Water Resources Commission under ORS 537.730 shall:

(a) Define the boundaries of the critical ground water area and shall indicate which of the ground water reservoirs located either in whole or in part within the area in question are included within the critical ground water area. Any number of ground water reservoirs which either wholly or partially overlie one another may be included within the same critical ground water area.

(b) Contain a provision requiring a periodic review of conditions in the critical ground water area. The review shall be in sufficient detail to evaluate the continuing need for the critical ground water area designation and shall occur no less frequently than once every 10 years.

(2) In adopting the rule, the commission shall consider any orders or permits applicable to the reservoir issued by the governing board or State Geologist of the State Department of Geology and Mineral Industries under ORS chapter 522.

(3) A rule by the commission under subsection (1) of this section may include any one or more of the following corrective control provisions:

(a) A provision closing the critical ground water area to any further appropriation of ground water, in which event the commission shall thereafter refuse to accept any application for a permit to appropriate ground water located within such critical area.

- (b) A provision determining the permissible total withdrawal of ground water in the critical area each day, month or year.
- (c) The disposition of any application for a water right permit for the use of water in the area that is pending at the time the commission initiates the rulemaking process or that is received during the rulemaking process.
- (d) Any one or more provisions making such additional requirements as are necessary to protect the public welfare, health and safety in accordance with the intent, purposes and requirements of ORS 537.505 to 537.795 and 537.992.
- (e) A provision closing all or part of the critical ground water area to further appropriation of ground water for its thermal characteristics.
- (f) A provision determining the permissible change in thermal characteristics of ground water in all or part of the critical ground water area each day, month or year. Insofar as may be reasonably done, the Water Resources Director shall apportion the permissible total temperature impact among those appropriators whose exercise of valid rights in the critical area affect the thermal characteristics of the ground water, in accordance with the relative dates of priority of such rights. [1955 c.708 §27; 1981 c.589 §6; 1981 c.919 §1; 1985 c.673 §63; 1989 c.201 §5; 1991 c.400 §5]

537.735 Rules designating critical ground water area.

- (1) A rule adopted by the Water Resources Commission under ORS 537.730 shall:
 - (a) Define the boundaries of the critical ground water area and shall indicate which of the ground water reservoirs located either in whole or in part within the area in question are included within the critical ground water area. Any number of ground water reservoirs which either wholly or partially overlie one another may be included within the same critical ground water area.
 - (b) Contain a provision requiring a periodic review of conditions in the critical ground water area. The review shall be in sufficient detail to evaluate the continuing need for the critical ground water area designation and shall occur no less frequently than once every 10 years.
- (2) In adopting the rule, the commission shall consider any orders or permits applicable to the reservoir issued by the governing board or State Geologist of the State Department of Geology and Mineral Industries under ORS chapter 522.
- (3) A rule by the commission under subsection (1) of this section may include any one or more of the following corrective control provisions:
 - (a) A provision closing the critical ground water area to any further appropriation of ground water, in which event the commission shall thereafter refuse to accept any application for a permit to appropriate ground water located within such critical area.
 - (b) A provision determining the permissible total withdrawal of ground water in the critical area each day, month or year.

(c) The disposition of any application for a water right permit for the use of water in the area that is pending at the time the commission initiates the rulemaking process or that is received during the rulemaking process.

(d) Any one or more provisions making such additional requirements as are necessary to protect the public welfare, health and safety in accordance with the intent, purposes and requirements of ORS 537.505 to 537.795 and 537.992.

(e) A provision closing all or part of the critical ground water area to further appropriation of ground water for its thermal characteristics.

(f) A provision determining the permissible change in thermal characteristics of ground water in all or part of the critical ground water area each day, month or year. Insofar as may be reasonably done, the Water Resources Director shall apportion the permissible total temperature impact among those appropriators whose exercise of valid rights in the critical area affect the thermal characteristics of the ground water, in accordance with the relative dates of priority of such rights. [1955 c.708 §27; 1981 c.589 §6; 1981 c.919 §1; 1985 c.673 §63; 1989 c.201 §5; 1991 c.400 §5]

537.745 Voluntary agreements among ground water users from same reservoir.

(1) In the administration of ORS 537.505 to 537.795 and 537.992, the Water Resources Commission may encourage, promote and recognize voluntary agreements among ground water users from the same ground water reservoir. When the commission finds that any such agreement, executed in writing and filed with the commission, is consistent with the intent, purposes and requirements of ORS 537.505 to 537.795 and 537.992, and in particular ORS 537.525, 537.730 to 537.740 and 537.780, the commission shall approve the agreement. Thereafter the agreement, until terminated as provided in this subsection, shall control in lieu of a formal order or rule of the commission under ORS 537.505 to 537.795 and 537.992. Any agreement approved by the commission may be terminated by the lapse of time as provided in the agreement, by consent of the parties to the agreement or by order of the commission if the commission finds, after investigation and a public hearing upon adequate notice, that the agreement is not being substantially complied with by the parties thereto or that changed conditions have made the continuance of the agreement a detriment to the public welfare, safety and health or contrary in any particular to the intent, purposes and requirements of ORS 537.505 to 537.795 and 537.992.

(2) When any irrigation district, drainage district, other district organized for public purposes or other public corporation or political subdivision of this state is authorized by law to enter into agreements of the kind referred to in subsection (1) of this section, the commission may approve such agreements as provided in subsection (1) of this section. Any such agreement approved by the commission shall have the same effect and shall be subject to termination in the same manner and for the same reasons set forth in subsection (1) of this section. [1955 c.708 §31; 1985 c.673 §65]

537.745 Voluntary agreements among ground water users from same reservoir.

(1) In the administration of ORS 537.505 to 537.795 and 537.992, the Water Resources Commission may encourage, promote and recognize voluntary agreements among ground water

users from the same ground water reservoir. When the commission finds that any such agreement, executed in writing and filed with the commission, is consistent with the intent, purposes and requirements of ORS 537.505 to 537.795 and 537.992, and in particular ORS 537.525, 537.730 to 537.740 and 537.780, the commission shall approve the agreement. Thereafter the agreement, until terminated as provided in this subsection, shall control in lieu of a formal order or rule of the commission under ORS 537.505 to 537.795 and 537.992. Any agreement approved by the commission may be terminated by the lapse of time as provided in the agreement, by consent of the parties to the agreement or by order of the commission if the commission finds, after investigation and a public hearing upon adequate notice, that the agreement is not being substantially complied with by the parties thereto or that changed conditions have made the continuance of the agreement a detriment to the public welfare, safety and health or contrary in any particular to the intent, purposes and requirements of ORS 537.505 to 537.795 and 537.992.

(2) When any irrigation district, drainage district, other district organized for public purposes or other public corporation or political subdivision of this state is authorized by law to enter into agreements of the kind referred to in subsection (1) of this section, the commission may approve such agreements as provided in subsection (1) of this section. Any such agreement approved by the commission shall have the same effect and shall be subject to termination in the same manner and for the same reasons set forth in subsection (1) of this section. [1955 c.708 §31; 1985 c.673 §65]

537.809 Reservation of water in basin of origin.

Before approving or recommending approval of an application subject to ORS 537.803, the Water Resources Commission shall reserve an amount of water adequate for future needs in the basin of origin, including an amount sufficient to protect public uses, and subordinate the out-of-basin use to that reservation. [1989 c.936 §6]

537.810 Diversion or appropriation of waters from basin of origin without legislative consent prohibited; terms of consent; exceptions.

(1) No waters located or arising within a basin shall be diverted, impounded or in any manner appropriated for diversion or use beyond the boundaries of that basin except upon the express consent of the Legislative Assembly. In the event the Legislative Assembly shall give its consent to any such request it may attach thereto such terms, conditions, exceptions, reservations, restrictions and provisions as it may care to make in the protection of the natural resources of the basin and the health and welfare of the present and future inhabitants of the basin within which the water arises or is located.

(2) Subsection (1) of this section shall not apply to appropriations or diversions of less than 50 cubic feet per second out of the basin of origin.

(3) Subsection (1) of this section shall not apply to appropriations or diversions within the Klamath River Basin as defined in ORS 542.620 or within the Goose Lake Basin as defined in ORS 542.520, so long as those statutes remain in effect.

(4) This section shall not apply to an appropriation or diversion by a city to facilitate regional municipal water service if the city has historically transported water between the basin of origin and proposed receiving basins identified in the application. [Amended by 1989 c.936 §7]

537.531 Legislative findings.

The Legislative Assembly declares that aquifer storage and recovery is a beneficial use inherent in all water rights for other beneficial uses. Aquifer storage and recovery is the storage of water from a separate source that meets drinking water standards in a suitable aquifer for later recovery and not having as one of its primary purposes the restoration of an aquifer. [1995 c.487 §2]

537.135 Permit required to appropriate water for recharging ground water sources; minimum perennial stream flow required for permit; exception.

(1) The appropriation of water for the purpose of recharging ground water basins or reservoirs is declared to be for a beneficial purpose. Permits for such appropriation may be granted by the Water Resources Department on application made therefor. Any such application shall substantially comply with ORS 537.140 and shall be subject to the provisions of ORS 537.150 to 537.230, as are other applications and permits to appropriate water.

(2) Any person proposing to apply to a beneficial use the water stored artificially in any such ground water basin or reservoir shall file an application for permit, to be known as the secondary permit, in compliance with the provisions of ORS 537.130, 537.140, 537.142 and 537.145 to 537.230. The application shall refer to the artificially recharged ground water basin or reservoir as a supply of water and shall include the written consent of the holder of the recharge permit or certificate to appropriate the artificially recharged water.

(3) The Water Resources Commission shall develop standards that an applicant must meet before the department approves a permit to appropriate water for the purpose of recharging ground water.

(4) Before issuing a permit for the purpose of recharging ground water, the department shall determine, under ORS 537.170, whether the proposed ground water recharge project would impair or be detrimental to the public interest.

(5) The department shall not issue a ground water recharge permit unless the supplying stream has a minimum perennial stream flow established for the protection of aquatic and fish life. The State Department of Fish and Wildlife may waive this prerequisite if a minimum perennial stream flow for protection of aquatic and fish life is not required for the supplying stream. [1961 c.402 §1; 1985 c.673 §26; 1987 c.499 §1; 1995 c.416 §3]

537.143 Limited license to use or store surface or ground water or to use stored water.

(1) Notwithstanding the provisions of ORS 537.130, the Water Resources Commission may establish by rule a procedure to allow a person to obtain a limited license to use or store ground water not otherwise exempt under ORS 537.545, to use or store surface water, to use stored water or to use stored water for purposes for which the stored water is authorized and in accordance with a contract with a local, state or federal government after the person complies with the notice provisions set forth in ORS 537.144. Uses eligible for a limited license shall be for a short-term or fixed duration and may include but are not limited to road construction and

maintenance, general construction and forestland or rangeland management. Except as provided in subsections (4) to (6) and (9) of this section, the use of water for a purpose specifically prohibited by a basin program or for irrigation is not eligible for a limited license.

(2) The use of water under a limited license under subsection (1) of this section shall not have priority over any water right exercised according to a permit or certificate and shall be subordinate to all other authorized uses that rely upon the same source. The Water Resources Department may revoke the right to use of water acquired under a limited license pursuant to subsection (1) of this section at any time if the use causes injury to:

- (a) Any other water right; or
- (b) A minimum perennial streamflow.

(3) Except as provided in subsections (4), (5) and (11) of this section, the licensee shall give notice to the Water Resources Department at least 15 days in advance of using the water under the limited license and shall maintain a record of use. The record shall include but need not be limited to an estimate of the amount of water used, the period of use and the categories of beneficial use to which the water is applied. During the period of the limited license, the record of use shall be available for review by the department upon request.

(4) The Water Resources Director may issue a limited license in conjunction with an enforcement order to address an illegal water use, including irrigation use or a use specifically prohibited by a basin program. The director may issue a limited license for such a use upon a finding that:

- (a) The person did not knowingly violate state laws regarding a water use permit;
- (b) The immediate termination of the illegal use would cause serious and undue hardship to the water user that could be ameliorated by providing a period of time in which to achieve compliance with the law; and
- (c) The continued use under a limited license outweighs the public benefits of termination, including deterrence of illegal uses and protection of the water source.

(5) An enforcement order issued under subsection (4) of this section shall specify an amount of time in which the person using water illegally shall bring such use into compliance. The duration of the limited license shall not exceed the duration of time allowed in the enforcement order to achieve compliance. A licensee using water under a limited license issued in conjunction with an enforcement order need not provide the department with advance notice of water use, but shall comply with the other requirements of this section.

- (6) The director may issue a limited license for irrigation if the sole purpose of the use is:
 - (a) To provide water necessary to establish a crop for which no further irrigation will be required after the crop is established;
 - (b) To mitigate the impacts of drought when additional water is needed beyond a prescribed irrigation season in order to avoid irreparable damage to the user's crop; or

(c) Under a limited license issued pursuant to subsection (9) of this section.

(7) Nothing in this section is intended to prohibit any person from obtaining a water right certificate under ORS 537.250 or 537.630 for any use for which a limited license is obtained under this section.

(8) Except as provided in subsection (10) of this section, the department may not issue a limited license for the same use for more than five consecutive years.

(9) Notwithstanding any other provision of this section, if the use of water under the limited license is for the use of stored water consistent with the purposes for which the stored water is authorized and the use of water is authorized by a contract between the user and a local, state or federal government:

(a) The limited license may be issued for a period of up to one year; and

(b) The limited license shall be revoked if the contract between the user and the local, state or federal government is terminated for any reason.

(10) At the end of the one-year limited license period in subsection (9) of this section, the user may reapply for a limited license under ORS 537.144 provided that there is an authorized contract between the user and a local, state or federal government.

(11) The director may issue a limited license authorizing immediate use of water if the director finds that an emergency exists and the water is needed to protect the public health, safety and welfare. Notwithstanding subsection (8) of this section, the director may issue a limited license for such a use for a period of 60 days. [1989 c.933 §2; 1993 c.595 §1; 1995 c.274 §8; 1997 c.38 §1; 1997 c.366 §1]

537.534 Rules for permitting and administering aquifer storage and recovery projects; limited license for test program; fees.

(1) In accordance with this section, the Water Resources Commission shall establish rules for the permitting and administration of aquifer storage and recovery projects. The rules shall establish the Water Resources Department as the sole permitting agency for the projects, but the Department of Environmental Quality and the Department of Human Services may comment on permits for a project and recommend conditions to be included on the permit. When necessary, the applicant also shall obtain land use and development approval from a local government.

(2) Notwithstanding the provisions of ORS 537.130, the Water Resources Commission shall establish by rule a procedure to allow a person to obtain a limited license to store and use water injected into an underground aquifer for aquifer storage and recovery testing purposes for a short term or fixed duration after the person complies with the notice provision set forth in ORS 537.144. The rules shall provide a 30-day public comment period before issuance of a limited license. The department may attach conditions to the limited license regarding monitoring, sampling and rates of recovery up to 100 percent of the injection quantity. Aquifer storage and recovery under a limited license may be conditioned by the department to protect existing ground water rights that rely upon the receiving aquifer and the injection source water. The department

may revoke or modify the limited license to use the stored water acquired under a limited license if that use causes injury to any other water right or to a minimum perennial streamflow. The Water Resources Director may issue a limited license for aquifer storage and recovery purposes for a term of not more than five years. The license may be renewed if the applicant demonstrates further testing is necessary.

(3) To obtain a limited license for aquifer storage and recovery, the applicant shall provide to the department:

- (a) Well construction information;
- (b) Test results of the quality of the injection source water;
- (c) Test results of the quality of the receiving aquifer water;
- (d) The proposed injected water storage time, recovery rates and recovery schedule;
- (e) Preliminary hydrogeologic information including a description of the aquifer, estimated flow direction and rate of movement, allocation of surface water, springs or wells within the area affected by aquifer storage and recovery wells;
- (f) The fee established by rule by the commission pursuant to ORS 536.050 (1)(L); and
- (g) Any other information required by rule of the commission.

(4) Only after completion of a test program under a limited license issued under subsection (3) of this section may the applicant apply for a permanent aquifer storage and recovery permit. Each application for an aquifer storage and recovery permit shall be accompanied by the fee set forth in ORS 536.050 (1)(b)(A). The Water Resources Department shall be the sole permitting agency for the project and may place conditions on the permit consistent with rules adopted by the commission, but the Department of Environmental Quality and the Department of Human Services may review, comment on and recommend conditions to be included on the permit. When necessary, the applicant shall obtain land use and development approval from a local government. Where existing water rights for the injection source water have been issued, the Water Resources Department shall receive comments from interested parties or agencies, but the public interest review standards shall apply only to the matters raised by the aquifer storage and recovery permit application in the same manner as any new water right application, not to the underlying water rights. If new water rights for injection source water and aquifer storage and recovery are necessary, then the public interest review standards shall apply to the new permit application in the same manner as any new water right application. The Water Resources Director may refer policy matters to the commission for decision.

(5) The commission shall adopt rules consistent with this section to implement an aquifer storage and recovery program. The rules shall include:

- (a) Requirements for reporting and monitoring the aquifer storage and recovery project aquifer impacts and for constituents reasonably expected to be found in the injection source water.

(b) Provisions that allow any person operating an aquifer storage and recovery project under a permit, upon approval by the department, to recover up to 100 percent of the water stored in the aquifer storage facility if valid scientific data gathered during operations under the limited license or permit demonstrate that the injected source water is not lost through migration or other means and that ground water otherwise present in the aquifer has not been irretrievably lost as a result of aquifer storage or retrieval. The department may place such other conditions on withdrawal of stored water necessary to protect the public health and environment, including conditions allowing reconsideration of the permit to comply with ORS 537.532.

(c) The procedure for allowing the Department of Environmental Quality and the Department of Human Services to comment on and recommend permit conditions.

(6) The use of water under a permit as injection source water for an aquifer storage and recovery project up to the limits allowed in subsection (5)(b) of this section shall not affect the priority date of the water right permit or otherwise affect the right evidenced by the permit.

(7) The holder of a permit for aquifer storage and recovery shall apply for a transfer or change of use if the use of recovered water is different from that which is allowed in the source water permit or certificate. [1995 c.487 §4; 1997 c.587 §2; 1999 c.665 §3]

OREGON ADMINISTRATIVE RULES

http://arcweb.sos.state.or.us/rules/OARS_600/OAR_690/690_tofc.html

OR. ADMIN. R. 690-008-0001.

"Declined excessively" is defined as meaning any cumulative lowering of the water levels in a groundwater reservoir or a part thereof which (a) precludes or could preclude the perpetual use of the reservoir, or (b) exceeds the economic pumping level; or (c) constitutes a decline determined to be interfering with a senior right; or (d) constitutes a lowering of the annual high water level within a groundwater reservoir, or part thereof greater than fifty feet below the highest known level; or (e) results in groundwater pollution; or (f) constitutes a lowering of the annual high water level greater than 15% of the greatest known saturated thickness of the groundwater reservoir. The stated thickness shall be calculated using pre-development water levels and the bottom of the groundwater reservoir, or the economic pumping level, whichever is shallower. Id. at 690-008-0001(4). "Economic pumping levels means the level below land surface at which the per-acre cost of pumping equals 70 percent of the net increase in annual per-acre value derived by irrigating. (The Value is to be calculated on a five year running average of the per - acre value of the three, if there are that many, prevalent irrigated crops in the regions minus the five year running average of the per-acre value of the three, if there are that many, prevalent regional non-irrigated crops." Id. at 690-008-0001(5)

OR. ADMIN. R. 690-009-0040(4)

Determination of Hydraulic Connection and Potential for Substantial Interference
For the purposes of permitting and distributing ground water, the potential for substantial interference with surface water supplies shall be:

(4) All wells that produce water from an aquifer that is determined to be hydraulically connected to a surface water source shall be assumed to have the potential to cause substantial interference with the surface water source if the existing or proposed ground water appropriation is within one of the following categories:

(a) The point of appropriation is a horizontal distance less than one-fourth mile from the surface water source; or

(b) The rate of appropriation is greater than five cubic feet per second, if the point of appropriation is a horizontal distance less than one mile from the surface water source; or

(c) The rate of appropriation is greater than one percent of the pertinent adopted minimum perennial streamflow or instream water right with a senior priority date, if one is applicable, or of the discharge that is equaled or exceeded 80 percent of time, as determined or estimated by the Department, and if the point of appropriation is a horizontal distance less than one mile from the surface water source; or

(d) The ground water appropriation, if continued for a period of 30 days, would result in stream depletion greater than 25 percent of the rate of appropriation, if the point of appropriation is a horizontal distance less than one mile from the surface water source. Using the best available information, stream depletion shall be determined or estimated by the Department, employing at least one of the following methods:

(A) Suitable equations and graphical techniques that are described in pertinent publications (such as "Computation of Rate and Volume of Stream Depletion by Wells", by C.T. Jenkins, in: "Techniques of Water-Resources Investigations of the United States Geological Survey: Book 4, Chapter D1");

(B) A computer program or ground water model that is based on such or similar equations or techniques.

OR. ADMIN. R. 690-009-0040(6)

Determination of Hydraulic Connection and Potential for Substantial Interference

For the purposes of permitting and distributing ground water, the potential for substantial interference with surface water supplies shall be:

(6) All wells that produce water from an aquifer that is not hydraulically connected to a surface water source shall be assumed not to interfere with the surface water source.

OR. ADMIN. R. 690-350-0010

(1) Definitions. The following definitions apply to aquifer storage and recovery in OAR Chapter 690, Division 350, Rules 0010 to 0030:

(a) "Aquifer Storage and Recovery" (ASR) means the storage of water from a separate source that meets drinking water standards in a suitable aquifer for later recovery and not having as one of its primary purposes the restoration of the aquifer (ORS 537.531). (Applications to obtain limited licenses or permits for ASR uses submitted pursuant to OAR 690-350-0010 to 690-350-0030 are not subject to provisions governing artificial groundwater recharge projects or programs pursuant to OAR 690-350-0110 to 690-350-0130.)

- (b) "Commission" means the Water Resources Commission.
- (c) "Department" means the Water Resources Department.
- (d) "DEQ" means the Department of Environmental Quality.
- (e) "Director" means the Water Resources Director.
- (f) "HD" means the Oregon Health Division.
- (g) "Injection Source Water" means the water which may be injected under terms of an ASR limited license or permit.
- (h) "Receiving Aquifer" means the aquifer into which water may be injected under terms of an ASR limited license or permit.
- (i) "Recovered Water" means water which is recovered from storage under terms of an ASR limited license or permit.
- (j) "Stored Water" means water which is stored in a receiving aquifer under terms of an ASR limited license or permit.

(2) Limited License for ASR Testing. The use of water for ASR testing purposes requires a limited license pursuant to ORS 537.534. A limited license pursuant to ORS 537.143 does not apply. Only after completion of an ASR testing program under a limited license may an applicant apply for a permanent ASR permit. A limited license application may propose ASR testing for a single well or same-aquifer wells in a wellfield. The limited license may allow for a beneficial use of the recovered water. If the limited license is based on a water right for injection source water, the limited license shall require the same use as the water right, but may allow a rate of injection which is no greater than that of the water right and a rate of recovery which is greater than that of the water right.

(3) Inherent to Water Rights. ASR is a beneficial use inherent in all water rights for other beneficial uses (ORS 537.531). Applicable water rights are either permits or certificates. ASR use under this inherent nature is accessed temporarily under an ASR limited license or permanently through an ASR permit. The use of water under a water right as injection source water for an ASR project up to the limits allowed in the ASR permit neither affects the priority date of the water right, nor changes the use permitted upon its recovery from the use permitted by the water right for injection source water, nor otherwise affects the water right. ASR permits may allow rates of injection which are no greater than those of the water right for injection source water and rates of recovery which are greater than those of the water right for injection source water.

(4) Separate Processes for Water Right and ASR Permit. An ASR permit does not allow an appropriation of water but does allow ASR to occur with a water right. The water right application process rules in OAR Chapter 690, Division 310 do not apply to ASR application processing. The public interest review standards for an ASR permit shall apply only to the

matters raised by the ASR application, not to the water right for the injection source water. An ASR permit may allow ASR storage through a single well or same-aquifer wells in a wellfield. If a new water right is needed as part of the ASR project, the new water right application shall be subject to the same standards as any new water right application.

(5) Use Described by Water Right. The use of recovered water under an ASR permit shall be the same as the use described by the water right permit or certificate for injection source water. The holder of a permit for ASR shall apply for a transfer under procedures set out in OAR 690-015 if the use of recovered ASR water is different from that which is allowed in the water right permit or certificate for the injection source water.

(6) Water Quality. Water quality is a major consideration in ASR activities and all of the following provisions apply:

(a) Injection source water for ASR shall comply with drinking water standards, treatment requirements, and performance standards established by the HD under OAR 333-061-0030 and 0032 (ORS 448.131 and .273) or the maximum measurable levels established by the Environmental Quality Commission under OAR 340-040 (ORS 468B.165), whichever are more stringent. The injection of such water into aquifers under an ASR limited license or permit shall be exempt from the requirement to obtain a discharge permit under ORS 468B.050 or a concentration limit variance from the DEQ;

(b) Conditions shall be placed on the limited license or permit to minimize, to the extent technically feasible, practical and cost-effective, the concentration of constituents in the injection source water that are not naturally present in the aquifer;

(c) No limited license or permit may establish concentration limits for water to be injected in excess of standards established by HD or the maximum measurable levels established by the Environmental Quality Commission under OAR 340-040 (ORS 468B.165), whichever are more stringent;

(d) Except as otherwise provided in (6)(e) of this rule, if the injection source water contains constituents regulated under OAR 333-061-0030 (ORS 448.131 and .273) or OAR 340-040 (ORS 468B.165) that are detected at greater than 50 percent of the established levels, the ASR limited license or permit may require the permittee to employ technically feasible, practical and cost-effective methods to minimize concentrations of such constituents in the injection source water;

(e) Constituents that have a secondary contaminant level or constituents that are associated with disinfection of the water may be injected into the aquifer up to the standards established under OAR 333-061-0030 (ORS 448.131 and 448.273);

(f) The Department may, based upon valid scientific data, further restrict certain constituents in the injection source water if the Department finds the constituents will interfere with or pose a threat to the maintenance of the water resources of the state for present or future beneficial uses.

(7) Oversight of ASR Projects. The Department is the sole licensing and permitting agency for ASR projects. However, other state agencies and local governments have a role as follows:

- (a) The Department shall seek DEQ and HD assistance in the administration of the ASR program, including recommending conditions to be included in the limited license and permit;
- (b) ASR activities under a limited license or permit are subject to conformance with land use laws and may be located within or outside an urban growth boundary;
- (c) The disposal of recovered ASR testing water may require discharge authorization from DEQ. All applicants should investigate this possibility;
- (d) Applicants that are public water systems as defined by the HD (OAR 333-061-0020(68)) shall comply with the HD's construction standards (OAR 333-061-0050) and plan submission and review requirements (OAR 333-061-0060).

(8) Percent Recovery of Stored Water. In addition to other conditions, the limited license or permit shall specify the amount of stored water that may be recovered. The Department may allow up to 100 percent of the stored water to be recovered if data analysis demonstrates that the injected source water is not lost through migration or other means and that groundwater otherwise present in the aquifer has not been irretrievably lost as a result of ASR.

(9) Appeal of Administrative Action. Any order of the Director related to ASR limited licenses is subject to administrative reconsideration as provided in the Administrative Procedures Act (ORS Chapter 183) and judicial review as provided in ORS 536.075. Orders of the Director related to ASR permits are subject to administrative reconsideration as provided in the Administrative Procedures Act (ORS Chapter 183) and judicial review as provided in ORS 536.075.

(10) Groundwater Protection. To reduce the potential for contamination of stored water, ASR operators are encouraged to consider the protection of their groundwater supply through the development of a Wellhead Protection plan or other appropriate groundwater protection plan.

OR. ADMIN. R. 690-500-0010

690-500-0010 Basin Programs Preamble

(1) The Water Resources Commission is responsible for the establishment of policy and procedures for the use and control of the state's water resources. In executing this responsibility, the Commission develops, adopts and periodically modifies programs for the state's major drainage basins.

(2) Basin programs are administrative rules which establish water management policies and objectives and which govern the appropriation and use of the surface and ground water within each of the respective basins. The rules classify surface and ground waters according to the uses which are permitted, may establish preferences among uses, may withdraw surface and groundwaters from further appropriation, may reserve waters for specified future uses, and may establish minimum perennial streamflows. These rules are in addition to rules with statewide applicability which govern the allocation and use of water.

(3) The Commission has adopted programs for the following basins:

- (a) North Coast Basin (Division 501);
- (b) Willamette Basin (Division 502);
- (c) Sandy Basin (Division 503);
- (d) Hood Basin (Division 504);
- (e) Deschutes Basin (Division 505);
- (f) John Day Basin (Division 506);
- (g) Umatilla Basin (Division 507);
- (h) Grand Ronde Basin (Division 508);
- (i) Powder Basin (Division 509);
- (j) Malheur -- Owyhee Basins (Division 510);
- (k) Goose and Summer Lakes Basin (Division 513);
- (l) Rogue Basin (Division 515);
- (m) Umpqua Basin (Division 516);
- (n) South Coast Basin (Division 517);
- (o) Mid Coast Basin (Division 518);
- (p) Columbia River (Division 519);
- (q) Middle Snake River Basin (Division 520).

(4) Although the Commission has not adopted a comprehensive basin program for the waters of the Malheur Lake Basin, minimum perennial stream-flows have been adopted for specified streams in the basin. These minimum perennial streamflows are in Division 512. Allocation and use of the waters of the basin also are subject to administrative rules with statewide applicability.

(5) The Commission has not adopted a comprehensive basin program for the waters of the Klamath Basin. Allocation and use of the waters of the basin are subject to administrative rules with statewide applicability and to the provisions of the Klamath River Basin Compact (ORS 542.620).

UTAH

UTAH CONSTITUTION²

UTAH STATUTES ANNOTATED

TITLE 73 WATER AND IRRIGATION

<http://www.le.state.ut.us/~code/code.htm>

73-1-1. Waters declared property of public.

All waters in this state, whether above or under the ground are hereby declared to be the property of the public, subject to all existing rights to the use thereof.

73-1-3. Beneficial use basis of right to use.

Beneficial use shall be the basis, the measure and the limit of all rights to the use of water in this state.

73-3-1. Appropriation -- Manner of acquiring water rights.

Rights to the use of the unappropriated public waters in this state may be acquired only as provided in this title. No appropriation of water may be made and no rights to the use thereof initiated and no notice of intent to appropriate shall be recognized except application for such appropriation first be made to the state engineer in the manner hereinafter provided, and not otherwise. The appropriation must be for some useful and beneficial purpose, and, as between appropriators, the one first in time shall be first in rights; provided, that when a use designated by an application to appropriate any of the unappropriated waters of the state would materially interfere with a more beneficial use of such water, the application shall be dealt with as provided in Section 73-3-8. No right to the use of water either appropriated or unappropriated can be acquired by adverse use or adverse possession.

73-3-2. Application for right to use unappropriated public water -- Necessity -- Form -- Contents -- Validation of prior applications by state or United States or officer or agency thereof.

(2) (a) In addition to the information required in Subsection (1)(b), if the proposed use is for irrigation, the application shall show:

(i) the legal subdivisions of the land proposed to be irrigated, with the total acreage thereof; and

(ii) the character of the soil.

(b) In addition to the information required in Subsection (1)(b), if the proposed use is for developing power, the application shall show:

² The Utah Constitution does not address groundwater.

(i) the number, size, and kind of water wheels to be employed and the head under which each wheel is to be operated;

(ii) the amount of power to be produced;

(iii) the purposes for which and the places where it is to be used; and

(iv) the point where the water is to be returned to the natural stream or source.

(c) In addition to the information required in Subsection (1)(b), if the proposed use is for milling or mining, the application shall show:

(i) the name of the mill and its location or the name of the mine and the mining district in which it is situated;

(ii) its nature; and

(iii) the place where the water is to be returned to the natural stream or source.

(d) (i) The point of diversion and point of return of the water shall be designated with reference to the United States land survey corners, mineral monuments or permanent federal triangulation or traverse monuments, when either the point of diversion or the point of return is situated within six miles of the corners and monuments.

(ii) If the point of diversion or point of return is located in unsurveyed territory, the point may be designated with reference to a permanent, prominent natural object.

(iii) The storage of water by means of a reservoir shall be regarded as a diversion, and the point of diversion in those cases is the point where the longitudinal axis of the dam crosses the center of the stream bed.

(iv) The point where released storage water is taken from the stream shall be designated as the point of rediversion.

(v) The lands to be inundated by any reservoir shall be described as nearly as may be, and by government subdivision if upon surveyed land. The height of the dam, the capacity of the reservoir, and the area of the surface when the reservoir is filled shall be given.

(vi) If the water is to be stored in an underground area or basin, the applicant shall designate, with reference to the nearest United States land survey corner if situated within six miles of it, the point of area of intake, the location of the underground area or basin, and the points of collection.

(e) Applications for the appropriation of water filed prior to the enactment of this title, by the United States of America, or any officer or agency of it, or the state of Utah, or any officer or agency of it, are validated, subject to any action by the state engineer.

73-3-6. Publication of notice of application -- Corrections or amendments of applications.

(1) (a) When an application is filed in compliance with this title, the state engineer shall publish a notice of the application once a week for a period of two successive weeks in a newspaper of general circulation in the county in which the source of supply is located, and where the water is to be used.

(b) The notice shall:

(i) state that an application has been made; and

(ii) specify where the interested party may obtain additional information relating to the application.

(c) Clerical errors, ambiguities, and mistakes that do not prejudice the rights of others may be corrected by order of the state engineer either before or after the publication of notice.

(2) After publication of notice to water users, the state engineer may authorize amendments or corrections that involve a change of point of diversion, place, or purpose of use of water, only after republication of notice to water users.

Amended by Chapter 99, 2003 General Session

73-3-7. Protests.

(1) Any person interested may file a protest with the state engineer:

(a) within 20 days after the notice is published, if the adjudicative proceeding is informal; and

(b) within 30 days after the notice is published, if the adjudicative proceeding is formal.

(2) The state engineer shall consider the protest and shall approve or reject the application.

Amended by Chapter 19, 1995 General Session

73-3-8. Approval or rejection of application -- Requirements for approval -- Application for specified period of time -- Filing of royalty contract for removal of salt or minerals.

(1) It shall be the duty of the state engineer to approve an application if: (a) there is unappropriated water in the proposed source; (b) the proposed use will not impair existing rights or interfere with the more beneficial use of the water; (c) the proposed plan is physically and economically feasible, unless the application is filed by the United States Bureau of Reclamation, and would not prove detrimental to the public welfare; (d) the applicant has the financial ability to complete the proposed works; and (e) the application was filed in good faith and not for purposes of speculation or monopoly. If the state engineer, because of information in his possession obtained either by his own investigation or otherwise, has reason to believe that an application to appropriate water will interfere with its more beneficial use for irrigation, domestic or culinary, stock watering, power or mining development or manufacturing, or will unreasonably affect public recreation or the natural stream environment, or will prove detrimental to the public welfare, it is his duty to withhold his approval or rejection of the application until he has investigated the matter. If an application does not meet the requirements of this section, it shall be rejected.

(2) An application to appropriate water for industrial, power, mining development, manufacturing purposes, agriculture, or municipal purposes may be approved for a specific and certain period from the time the water is placed to beneficial use under the application, but in no event may an application be granted for a period of time less than that ordinarily needed to satisfy the essential and primary purpose of the application or until the water is no longer available as determined by the state engineer. At the expiration of the period fixed by the state engineer the water shall revert to the public and is subject to appropriation as provided by Title 73. The state engineer may extend any limited water right upon a showing that the essential purpose of the original application has not been satisfied, that the need for an extension is not the result of any default or neglect by the applicant, and that water is still available; except no extension shall exceed the time necessary to satisfy the primary purpose of the original application. A request for extension must be filed in writing in the office of the state engineer not later than 60 days before the expiration date of the application.

(3) Before the approval of any application for the appropriations of water from navigable lakes or streams of the state which contemplates the recovery of salts and other minerals therefrom by precipitation or otherwise, the applicant shall file with the state engineer a copy of a contract for the payment of royalties to the state of Utah. The approval of an application shall be revoked in the event of the failure of the applicant to comply with terms of his royalty contract. amended by Chapter 139, 1985 General Session

73-3-10. Approval or rejection of application.

(1) When the approval or rejection of an application is decided, a record of the decision shall be made in the state engineer's office.

(2) The state engineer's decision shall be mailed to the applicant.

(3) If the application is approved, the applicant shall be authorized upon receipt of the decision to:

- (a) proceed with the construction of the necessary works;
- (b) take any steps required to apply the water to the use named in the application; and
- (c) perfect the proposed application.

(4) If the application is rejected, the applicant shall take no steps toward the prosecution of the proposed work or the diversion and use of the public water under the application.

(5) The state engineer shall state in any decision approving an application the time within which the construction work must be completed and the water applied to beneficial use.
Amended by Chapter 48, 1997 General Session

73-3-21. Priorities between appropriators.

Appropriators shall have priority among themselves according to the dates of their respective appropriations, so that each appropriator shall be entitled to receive his whole supply before any subsequent appropriator shall have any right; provided, in times of scarcity, while priority of appropriation shall give the better right as between those using water for the same purpose, the use for domestic purposes, without unnecessary waste, shall have preference over use for all other purposes, and use for agricultural purposes shall have preference over use for any other purpose except domestic use.

WASHINGTON

WASHINGTON STATE CONSTITUTION

ARTICLE 21 WATER AND WATER RIGHTS

http://www.courts.wa.gov/education/constitution/?fa=education_constitution.display&displayid=Article-21

Section 1. Public Use Of Water.

The use of the waters of this state for irrigation, mining and manufacturing purposes shall be deemed a public use.

WASHINGTON STATUTES

TITLE 90 WATER RIGHTS -- ENVIRONMENT

<http://www.leg.wa.gov/rcw/index.cfm?fuseaction=chapter&chapter=90.03&RequestTimeout=500>

Purpose of chapter.

This chapter regulating and controlling ground waters of the state of Washington shall be supplemental to chapter 90.03 RCW, which regulates the surface waters of the state, and is enacted for the purpose of extending the application of such surface water statutes to the appropriation and beneficial use of ground waters within the state.

90.03.010 Appropriation of water rights -- Existing rights preserved.

The power of the state to regulate and control the waters within the state shall be exercised as hereinafter in this chapter provided. Subject to existing rights all waters within the state belong to the public, and any right thereto, or to the use thereof, shall be hereafter acquired only by appropriation for a beneficial use and in the manner provided and not otherwise; and, as between appropriations, the first in time shall be the first in right. Nothing contained in this chapter shall be construed to lessen, enlarge, or modify the existing rights of any riparian owner, or any existing right acquired by appropriation, or otherwise. They shall, however, be subject to condemnation as provided in RCW 90.03.040, and the amount and priority thereof may be determined by the procedure set out in RCW 90.03.110 through 90.03.240.

90.03.300 Appropriation procedure -- Diversion of water for out-of-state use -- Reciprocity.

No permit for the appropriation of water shall be denied because of the fact that the point of diversion described in the application for such permit, or any portion of the works in such application described and to be constructed for the purpose of storing, conserving, diverting or distributing such water, or because the place of intended use or the lands to be irrigated by means of such water, or any part thereof, may be situated in some other state or nation, but in all such cases where either the point of diversion or any of such works or the place of intended use, or the lands, or part of the lands, to be irrigated by means of such water, are situated within the state of Washington, the permit shall issue as in other cases: PROVIDED, HOWEVER, That the department may in its discretion, decline to issue a permit where the point of diversion described in the application is within the state of Washington but the place of beneficial use in some other

state or nation, unless under the laws of such state or nation water may be lawfully diverted within such state or nation for beneficial use in the state of Washington.

90.03.330 Appropriation procedure -- Water right certificate.

(1) Upon a showing satisfactory to the department that any appropriation has been perfected in accordance with the provisions of this chapter, it shall be the duty of the department to issue to the applicant a certificate stating such facts in a form to be prescribed by the director, and such certificate shall thereupon be recorded with the department. Any original water right certificate issued, as provided by this chapter, shall be recorded with the department and thereafter, at the expense of the party receiving the same, be transmitted by the department to the county auditor of the county or counties where the distributing system or any part thereof is located, and be recorded in the office of such county auditor, and thereafter be transmitted to the owner thereof.

(2) Except as provided for the issuance of certificates under RCW 90.03.240 and for the issuance of certificates following the approval of a change, transfer, or amendment under RCW 90.03.380 or 90.44.100, the department shall not revoke or diminish a certificate for a surface or ground water right for municipal water supply purposes as defined in RCW 90.03.015 unless the certificate was issued with ministerial errors or was obtained through misrepresentation. The department may adjust such a certificate under this subsection if ministerial errors are discovered, but only to the extent necessary to correct the ministerial errors. The department may diminish the right represented by such a certificate if the certificate was obtained through a misrepresentation on the part of the applicant or permit holder, but only to the extent of the misrepresentation. The authority provided by this subsection does not include revoking, diminishing, or adjusting a certificate based on any change in policy regarding the issuance of such certificates that has occurred since the certificate was issued. This subsection may not be construed as providing any authority to the department to revoke, diminish, or adjust any other water right.

(3) This subsection applies to the water right represented by a water right certificate issued prior to September 9, 2003, for municipal water supply purposes as defined in RCW 90.03.015 where the certificate was issued based on an administrative policy for issuing such certificates once works for diverting or withdrawing and distributing water for municipal supply purposes were constructed rather than after the water had been placed to actual beneficial use. Such a water right is a right in good standing.

(4) After September 9, 2003, the department must issue a new certificate under subsection (1) of this section for a water right represented by a water right permit only for the perfected portion of a water right as demonstrated through actual beneficial use of water.

90.03.340 Appropriation procedure -- Effective date of water right.

The right acquired by appropriation shall relate back to the date of filing of the original application with the department.

90.03.370 Reservoir permits -- Secondary permits -- Expedited processing -- Underground artificial storage and recovery project standards and rules -- Exemptions -- Report to the legislature.

(1)(a) All applications for reservoir permits are subject to the provisions of RCW 90.03.250 through 90.03.320. But the party or parties proposing to apply to a beneficial use the water stored

in any such reservoir shall also file an application for a permit, to be known as the secondary permit, which shall be in compliance with the provisions of RCW 90.03.250 through 90.03.320. Such secondary application shall refer to such reservoir as its source of water supply and shall show documentary evidence that an agreement has been entered into with the owners of the reservoir for a permanent and sufficient interest in said reservoir to impound enough water for the purposes set forth in said application. When the beneficial use has been completed and perfected under the secondary permit, the department shall take the proof of the water users under such permit and the final certificate of appropriation shall refer to both the ditch and works described in the secondary permit and the reservoir described in the primary permit. The department may accept for processing a single application form covering both a proposed reservoir and a proposed secondary permit or permits for use of water from that reservoir.

(2)(a) For the purposes of this section, "reservoir" includes, in addition to any surface reservoir, any naturally occurring underground geological formation where water is collected and stored for subsequent use as part of an underground artificial storage and recovery project. To qualify for issuance of a reservoir permit an underground geological formation must meet standards for review and mitigation of adverse impacts identified, for the following issues:

- (i) Aquifer vulnerability and hydraulic continuity;
- (ii) Potential impairment of existing water rights;
- (iii) Geotechnical impacts and aquifer boundaries and characteristics;
- (iv) Chemical compatibility of surface waters and ground water;
- (v) Recharge and recovery treatment requirements;
- (vi) System operation;
- (vii) Water rights and ownership of water stored for recovery; and
- (viii) Environmental impacts.

(b) Standards for review and standards for mitigation of adverse impacts for an underground artificial storage and recovery project shall be established by the department by rule. Notwithstanding the provisions of RCW 90.03.250 through 90.03.320, analysis of each underground artificial storage and recovery project and each underground geological formation for which an applicant seeks the status of a reservoir shall be through applicant-initiated studies reviewed by the department.

90.14.180 Relinquishment of right for abandonment or failure to beneficially use without sufficient cause -- Future rights acquired through appropriation.

Any person hereafter entitled to divert or withdraw waters of the state through an appropriation authorized under RCW 90.03.330, 90.44.080, or 90.44.090 who abandons the same, or who voluntarily fails, without sufficient cause, to beneficially use all or any part of said right to withdraw for any period of five successive years shall relinquish such right or portion thereof, and such right or portion thereof shall revert to the state, and the waters affected by said right shall become available for appropriation in accordance with RCW 90.03.250. All certificates hereafter issued by the department of ecology pursuant to RCW 90.03.330 shall expressly incorporate this section by reference.

90.14.220 No rights to be acquired by prescription or adverse use.

No rights to the use of surface or ground waters of the state affecting either appropriated or unappropriated waters thereof may be acquired by prescription or adverse use.

90.44.035 Definitions.

For purposes of this chapter:

(3) "Ground waters" means all waters that exist beneath the land surface or beneath the bed of any stream, lake or reservoir, or other body of surface water within the boundaries of this state, whatever may be the geological formation or structure in which such water stands or flows, percolates or otherwise moves. There is a recognized distinction between natural ground water and artificially stored ground water;

(4) "Natural ground water" means water that exists in underground storage owing wholly to natural processes

(5) "Artificially stored ground water" means water that is made available in underground storage artificially, either intentionally, or incidentally to irrigation and that otherwise would have been dissipated by natural processes; and

90.44.040 Public ground waters subject to appropriation.

Subject to existing rights, all natural ground waters of the state as defined in RCW 90.44.035, also all artificial ground waters that have been abandoned or forfeited, are hereby declared to be public ground waters and to belong to the public and to be subject to appropriation for beneficial use under the terms of this chapter and not otherwise.

90.44.050 Permit to withdraw.

After June 6, 1945, no withdrawal of public ground waters of the state shall be begun, nor shall any well or other works for such withdrawal be constructed, unless an application to appropriate such waters has been made to the department and a permit has been granted by it as herein provided: EXCEPT, HOWEVER, That any withdrawal of public ground waters for stock-watering purposes, or for the watering of a lawn or of a noncommercial garden not exceeding one-half acre in area, or for single or group domestic uses in an amount not exceeding five thousand gallons a day, or as provided in RCW 90.44.052, or for an industrial purpose in an amount not exceeding five thousand gallons a day, is and shall be exempt from the provisions of this section, but, to the extent that it is regularly used beneficially, shall be entitled to a right equal to that established by a permit issued under the provisions of this chapter: PROVIDED, HOWEVER, That the department from time to time may require the person or agency making any such small withdrawal to furnish information as to the means for and the quantity of that withdrawal: PROVIDED, FURTHER, That at the option of the party making withdrawals of ground waters of the state not exceeding five thousand gallons per day, applications under this section or declarations under RCW 90.44.090 may be filed and permits and certificates obtained in the same manner and under the same requirements as is in this chapter provided in the case of withdrawals in excess of five thousand gallons a day.

90.44.060 Laws governing withdrawal.

Applications for permits for appropriation of underground water shall be made in the same form and manner provided in RCW 90.03.250 through 90.03.340, as amended, the provisions of which sections are hereby extended to govern and to apply to ground water, or ground water right certificates and to all permits that shall be issued pursuant to such applications, and the rights to the withdrawal of ground water acquired thereby shall be governed by RCW 90.03.250 through 90.03.340, inclusive: PROVIDED, That each application to withdraw public ground water by means of a well or wells shall set forth the following additional information: (1) the

name and post office address of the applicant; (2) the name and post office address of the owner of the land on which such well or wells or works will be located; (3) the location of the proposed well or wells or other works for the proposed withdrawal; (4) the ground water area, sub-area, or zone from which withdrawal is proposed, provided the department has designated such area, sub-area, or zone in accord with RCW 90.44.130; (5) the amount of water proposed to be withdrawn, in gallons a minute and in acre feet a year, or millions of gallons a year; (6) the depth and type of construction proposed for the well or wells or other works: AND PROVIDED FURTHER, That any permit issued pursuant to an application for constructing a well or wells to withdraw public ground water may specify an approved type and manner of construction for the purposes of preventing waste of said public waters and of conserving their head.

90.44.070 Limitations on granting permit.

No permit shall be granted for the development or withdrawal of public ground waters beyond the capacity of the underground bed or formation in the given basin, district, or locality to yield such water within a reasonable or feasible pumping lift in case of pumping developments, or within a reasonable or feasible reduction of pressure in the case of artesian developments. The department shall have the power to determine whether the granting of any such permit will injure or damage any vested or existing right or rights under prior permits and may in addition to the records of the department, require further evidence, proof, and testimony before granting or denying any such permits.

90.44.080 Certificate -- Showing required.

Upon a showing to the department that construction has been completed in compliance with the terms of any permit issued under the provisions of this chapter, it shall be the duty of the department to issue to the permittee a certificate of ground water right stating that the appropriation has been perfected under such permit: PROVIDED, HOWEVER, That such showing shall include the following information: (1) the location of each well or other means of withdrawal constructed under the permit, both with respect to official land surveys and in terms of distance and direction to any preexisting well or wells or works constructed under an earlier permit or approved declaration of a vested right, provided the distance to such pre-existing well or works is not more than a quarter of a mile; (2) the depth and diameter of each well or the depth and general specifications of any other works constructed under the terms of the permit; (3) the thickness in feet and the physical character of each bed, stratum, or formation penetrated by each well; (4) the length and position, in feet below the land surface, and the commercial specifications of all casing, also of each screen or perforated zone in the casing of each well constructed; (5) the tested capacity of each well in gallons a minute, as determined by measuring the discharge of the pump or pumps after continuous operation for at least four hours or, in the case of a flowing well, by measuring the natural flow at the land surface; (6) for each nonflowing well, the depth to the static ground water level as measured in feet below the land surface immediately before the well-capacity test herein provided, also the draw-down of the water level, in feet, at the end of said well-capacity test; (7) for each flowing well, the shut-in pressure measured in feet above the land surface or in pounds per square inch at the land surface; and (8) such additional factual information as reasonably may be required by the department to establish compliance with the terms of the permit and with the provisions of this chapter.

The well driller or other constructor of works for the withdrawal of public ground waters shall be obligated to furnish the permittee a certified record of the factual information necessary to show compliance with the provisions of this section.

90.44.130 Priorities as between appropriators -- Department in charge of ground water withdrawals -- Establishment and modification of ground water areas and depth zones -- Declarations by claimant of artificially stored water.

As between appropriators of public ground water, the prior appropriator shall as against subsequent appropriators from the same ground water body be entitled to the preferred use of such ground water to the extent of his appropriation and beneficial use, and shall enjoy the right to have any withdrawals by a subsequent appropriator of ground water limited to an amount that will maintain and provide a safe sustaining yield in the amount of the prior appropriation. The department shall have jurisdiction over the withdrawals of ground water and shall administer the ground water rights under the principle just set forth, and it shall have the jurisdiction to limit withdrawals by appropriators of ground water so as to enforce the maintenance of a safe sustaining yield from the ground water body. For this purpose, the department shall have authority and it shall be its duty from time to time, as adequate factual data become available, to designate ground water areas or sub-areas, to designate separate depth zones within any such area or sub-area, or to modify the boundaries of such existing area, or sub-area, or zones to the end that the withdrawals therefrom may be administratively controlled as prescribed in RCW 90.44.180 in order that overdraft of public ground waters may be prevented so far as is feasible. Each such area or zone shall, as nearly as known facts permit, be so designated as to enclose a single and distinct body of public ground water. Each such sub-area may be so designated as to enclose all or any part of a distinct body of public ground water, as the department deems will most effectively accomplish the purposes of this chapter.

Designation of, or modification of the boundaries of such a ground water area, sub-area, or zone may be proposed by the department on its own motion or by petition to the department signed by at least fifty or one-fourth, whichever is the lesser number, of the users of ground water in a proposed ground water area, sub-area, or zone. Before any proposed ground water area, sub-area, or zone shall be designated, or before the boundaries or any existing ground water area, sub-area, or zone shall be modified the department shall publish a notice setting forth: (1) In terms of the appropriate legal subdivisions a description of all lands enclosed within the proposed area, sub-area, or zone, or within the area, sub-area, or zone whose boundaries are proposed to be modified; (2) the object of the proposed designation or modification of boundaries; and (3) the day and hour, and the place where written objections may be submitted and heard. Such notice shall be published in three consecutive weekly issues of a newspaper of general circulation in the county or counties containing all or the greater portion of the lands involved, and the newspaper of publication shall be selected by the department. Publication as just prescribed shall be construed as sufficient notice to the landowners and water users concerned.

Objections having been heard as herein provided, the department shall make and file in its office written findings of fact with respect to the proposed designation or modification and, if the findings are in the affirmative, shall also enter a written order designating the ground water area, or sub-area, or zone or modifying the boundaries of the existing area, sub-area, or zone. Such findings and order shall also be published substantially in the manner herein prescribed for notice of hearing, and when so published shall be final and conclusive unless an appeal therefrom is taken within the period and in the manner prescribed by RCW 43.21B.310. Publication of such findings and order shall give force and effect to the remaining provisions of this section and to the provisions of RCW 90.44.180, with respect to the particular area, sub-area, or zone.

Priorities of right to withdraw public ground water shall be established separately for each ground water area, sub-area, or zone and, as between such rights, the first in time shall be the superior in right. The priority of the right acquired under a certificate of ground water right shall be the date of filing of the original application for a withdrawal with the department, or the date or approximate date of the earliest beneficial use of water as set forth in a certificate of a vested ground water right, under the provisions of RCW 90.44.090.

Within ninety days after the designation of a ground water area, sub-area or zone as herein provided, any person, firm or corporation then claiming to be the owner of artificially stored ground water within such area, sub-area, or zone shall file a certified declaration to that effect with the department on a form prescribed by the department. Such declaration shall cover: (1) The location and description of the works by whose operation such artificial ground water storage is purported to have been created, and the name or names of the owner or owners thereof; (2) a description of the lands purported to be underlain by such artificially stored ground water, and the name or names of the owner or owners thereof; (3) the amount of such water claimed; (4) the date or approximate date of the earliest artificial storage; (5) evidence competent to show that the water claimed is in fact water that would have been dissipated naturally except for artificial improvements by the claimant; and (6) such additional factual information as reasonably may be required by the department. If any of the purported artificially stored ground water has been or then is being withdrawn, the claimant also shall file (1) the declarations which this chapter requires of claimants to a vested right to withdraw public ground waters, and (2) evidence competent to show that none of the water withdrawn under those declarations is in fact public ground water from the area, sub-area, or zone concerned: PROVIDED, HOWEVER, That in case of failure to file a declaration within the ninety-day period herein provided, the claimant may apply to the department for a reasonable extension of time, which shall not exceed two additional years and which shall be granted only upon a showing of good cause for such failure.

Following publication of the declaration and findings -- as in the case of an original application, permit, or certificate of right to appropriate public ground waters -- the department shall accept or reject such declaration or declarations with respect to ownership or withdrawal of artificially stored ground water. Acceptance of such declaration or declarations by the department shall convey to the declarant no right to withdraw public ground waters from the particular area, sub-area, or zone, nor to impair existing or subsequent rights to such public waters.

Any person, firm or corporation hereafter claiming to be the owner of ground water within a designated ground water area, sub-area, or zone by virtue of its artificial storage subsequent to such designation shall, within three years following the earliest artificial storage file a declaration of claim with the department, as herein prescribed for claims based on artificial storage prior to such designation: PROVIDED, HOWEVER, That in case of such failure the claimant may apply to the department for a reasonable extension of time, which shall not exceed two additional years and which shall be granted upon a showing of good cause for such failure.

Any person, firm or corporation hereafter withdrawing ground water claimed to be owned by virtue of artificial storage subsequent to designation of the relevant ground water area, sub-area, or zone shall, within ninety days following the earliest such withdrawal, file with the department the declarations required by this chapter with respect to withdrawals of public ground water.

90.44.180 Hearing to adjust supply to current needs.

At any time the department may hold a hearing on its own motion, and shall hold a hearing upon petition of at least fifty or one-fourth, whichever is the lesser number, of the holders of valid rights to withdraw public ground waters from any designated ground water area, sub-area, or zone, to determine whether the water supply in such area, sub-area, or zone is adequate for the current needs of all such holders. Notice of any such hearing, and the findings and order resulting therefrom shall be published in the manner prescribed in RCW 90.44.130 with respect to the designation or modification of a ground water area, or sub-area, or zone.

If such hearing finds that the total available supply is inadequate for the current needs of all holders of valid rights to withdraw public ground waters from the particular ground water area, sub-area, or zone, the department shall order the aggregate withdrawal from such area, sub-area, or zone decreased so that it shall not exceed such available supply. Such decrease shall conform to the priority of the pertinent valid rights and shall prevail for the term of shortage in the available supply. Except that by mutual agreement among the respective holders and with the department, the ordered decrease in aggregate withdrawal may be accomplished by the waiving of all or some specified part of a senior right or rights in favor of a junior right or rights: PROVIDED, That such waiving of a right or rights by agreement shall not modify the relative priorities of such right or rights as recorded in the department.

90.44.200 Water supervisors -- Duties -- Compensation.

The department, as in its judgment is deemed necessary and advisable, may appoint one or more ground water supervisors for each designated ground water area, sub-area, or zone, or may appoint one or more ground water supervisors-at-large. Within their respective jurisdictions and under the direction of the department, such supervisor and supervisors-at-large shall supervise the withdrawal of public ground waters and the carrying out of orders issued by the department under the provisions of this chapter.

The duties, compensation, and authority of such supervisors or supervisors-at-large shall be those prescribed for water masters under the terms of RCW 90.03.060 and 90.03.070.

90.44.400 Ground water management areas -- Purpose -- Standards -- Identification -- Designation.

(1) This legislation is enacted for the purpose of identifying ground water management procedures that are consistent with both local needs and state water resource policies and management objectives; including the protection of water quality, assurance of quantity, and efficient management of water resources to meet future needs.

In recognition of existing water rights and the need to manage ground water aquifers for future use, the department of ecology shall, by rule, establish standards, criteria, and a process for the designation of specific ground water areas or sub-areas, or separate depth zones within such area or sub-area, and provide for either the department of ecology, local governments, or ground water users of the area to initiate development of a ground water management program for each area or sub-area, consistent with state and local government objectives, policies, and authorities. The department shall develop and adopt these rules by January 1, 1986.

(2) The department of ecology, in cooperation with other state agencies, local government, and user groups, shall identify probable ground water management areas or sub-areas. The department shall also prepare a general schedule for the development of ground water management programs that recognizes the available local or state agency staff and financial resources to carry out the intent of RCW 90.44.400 through 90.44.420. The department shall also provide the option for locally initiated studies and for local government to assume the lead agency role in developing the ground water management program and in implementing the provisions of RCW 90.44.400 through 90.44.420. The criteria to guide identification of the ground water areas or sub-areas shall include but not be limited to, the following:

- (a) Aquifer systems that are declining due to restricted recharge or over-utilization;
- (b) Aquifer systems in which over-appropriation may have occurred and adjudication of water rights has not yet been completed;
- (c) Aquifer systems currently being considered for water supply reservation under chapter 90.54 RCW for future beneficial uses;
- (d) Aquifers identified as the primary source of supply for public water supply systems;
- (e) Aquifers designated as a sole source aquifer by the federal environmental protection agency; and
- (f) Geographical areas where land use may result in contamination or degradation of the ground water quality.

(3) In developing the ground water management programs, priority shall be given to areas or sub-areas where water quality is imminently threatened.

90.44.410 Requirements for ground water management programs -- Review of programs.

(1) The ground water area or sub-area management programs shall include:

- (a) A description of the specific ground water area or sub-areas, or separate depth zones within any such area or sub-area, and the relationship of this zone or area to the land use management responsibilities of county government;
- (b) A management program based on long-term monitoring and resource management objectives for the area or sub-area;
- (c) Identification of water resources and the allocation of the resources to meet state and local needs;
- (d) Projection of water supply needs for existing and future identified user groups and beneficial uses;
- (e) Identification of water resource management policies and/or practices that may impact the recharge of the designated area or policies that may affect the safe yield and quantity of water available for future appropriation;

(f) Identification of land use and other activities that may impact the quality and efficient use of the ground water, including domestic, industrial, solid, and other waste disposal, underground storage facilities, or storm water management practices;

(g) The design of the program necessary to manage the resource to assure long-term benefits to the citizens of the state;

(h) Identification of water quality objectives for the aquifer system which recognize existing and future uses of the aquifer and that are in accordance with department of ecology and department of social and health services drinking and surface water quality standards;

(i) Long-term policies and construction practices necessary to protect existing water rights and subsequent facilities installed in accordance with the ground water area or sub-area management programs and/or other water right procedures;

(j) Annual withdrawal rates and safe yield guidelines which are directed by the long-term management programs that recognize annual variations in aquifer recharge;

(k) A description of conditions and potential conflicts and identification of a program to resolve conflicts with existing water rights;

(l) Alternative management programs to meet future needs and existing conditions, including water conservation plans; and

(m) A process for the periodic review of the ground water management program and monitoring of the implementation of the program.

(2) The ground water area or sub-area management programs shall be submitted for review in accordance with the state environmental policy act.

90.44.420 Ground water management programs -- Consideration by department of ecology -- Public hearing -- Findings -- Adoption of regulations, ordinances, and programs.

The department of ecology shall consider the ground water area or sub-area management plan for adoption in accordance with this chapter and chapter 90.54 RCW.

Upon completion of the ground water area or sub-area management program, the department of ecology shall hold a public hearing within the designated ground water management area for the purpose of taking public testimony on the proposed program. Following the public hearing, the department of ecology and affected local governments shall (1) prepare findings which either provide for the subsequent adoption of the program as proposed or identify the revisions necessary to ensure that the program is consistent with the intent of this chapter, and (2) adopt regulations, ordinances, and/or programs for implementing those provisions of the ground water management program which are within their respective jurisdictional authorities.

90.44.440 Existing rights not affected.

RCW 90.44.400 through 90.44.430 shall not affect any water rights existing as of May 21, 1985.

90.54.020 General declaration of fundamentals for utilization and management of waters of the state.

Utilization and management of the waters of the state shall be guided by the following general declaration of fundamentals:

(1) Uses of water for domestic, stock watering, industrial, commercial, agricultural, irrigation, hydroelectric power production, mining, fish and wildlife maintenance and enhancement, recreational, and thermal power production purposes, and preservation of environmental and aesthetic values, and all other uses compatible with the enjoyment of the public waters of the state, are declared to be beneficial.

(2) Allocation of waters among potential uses and users shall be based generally on the securing of the maximum net benefits for the people of the state. Maximum net benefits shall constitute total benefits less costs including opportunities lost.

(3) The quality of the natural environment shall be protected and, where possible, enhanced as follows:

(a) Perennial rivers and streams of the state shall be retained with base flows necessary to provide for preservation of wildlife, fish, scenic, aesthetic and other environmental values, and navigational values. Lakes and ponds shall be retained substantially in their natural condition. Withdrawals of water which would conflict therewith shall be authorized only in those situations where it is clear that overriding considerations of the public interest will be served.

(b) Waters of the state shall be of high quality. Regardless of the quality of the waters of the state, all wastes and other materials and substances proposed for entry into said waters shall be provided with all known, available, and reasonable methods of treatment prior to entry. Notwithstanding that standards of quality established for the waters of the state would not be violated, wastes and other materials and substances shall not be allowed to enter such waters which will reduce the existing quality thereof, except in those situations where it is clear that overriding considerations of the public interest will be served. Technology-based effluent limitations or standards for discharges for municipal water treatment plants located on the Chehalis, Columbia, Cowlitz, Lewis, or Skagit river shall be adjusted to reflect credit for substances removed from the plant intake water if:

(i) The municipality demonstrates that the intake water is drawn from the same body of water into which the discharge is made; and

(ii) The municipality demonstrates that no violation of receiving water quality standards or appreciable environmental degradation will result.

(4) The development of multipurpose water storage facilities shall be a high priority for programs of water allocation, planning, management, and efficiency. The department, other state agencies, local governments, and planning units formed under *section 107 or 108 of this act shall evaluate the potential for the development of new storage projects and the benefits and effects of storage in reducing damage to stream banks and property, increasing the use of land,

providing water for municipal, industrial, agricultural, power generation, and other beneficial uses, and improving stream flow regimes for fisheries and other instream uses.

(5) Adequate and safe supplies of water shall be preserved and protected in potable condition to satisfy human domestic needs.

(6) Multiple-purpose impoundment structures are to be preferred over single-purpose structures. Due regard shall be given to means and methods for protection of fishery resources in the planning for and construction of water impoundment structures and other artificial obstructions.

(7) Federal, state, and local governments, individuals, corporations, groups and other entities shall be encouraged to carry out practices of conservation as they relate to the use of the waters of the state. In addition to traditional development approaches, improved water use efficiency and conservation shall be emphasized in the management of the state's water resources and in some cases will be a potential new source of water with which to meet future needs throughout the state.

(8) Development of water supply systems, whether publicly or privately owned, which provide water to the public generally in regional areas within the state shall be encouraged. Development of water supply systems for multiple domestic use which will not serve the public generally shall be discouraged where water supplies are available from water systems serving the public.

(9) Full recognition shall be given in the administration of water allocation and use programs to the natural interrelationships of surface and ground waters.

(10) Expressions of the public interest will be sought at all stages of water planning and allocation discussions.

(11) Water management programs, including but not limited to, water quality, flood control, drainage, erosion control and storm runoff are deemed to be in the public interest.

90.54.040 Comprehensive state water resources program -- Modifying existing and adopting new regulations and statutes.

(1) The department, through the adoption of appropriate rules, is directed, as a matter of high priority to insure that the waters of the state are utilized for the best interests of the people, to develop and implement in accordance with the policies of this chapter a comprehensive state water resources program which will provide a process for making decisions on future water resource allocation and use. The department may develop the program in segments so that immediate attention may be given to waters of a given physioeconomic region of the state or to specific critical problems of water allocation and use.

(2) In relation to the management and regulatory programs relating to water resources vested in it, the department is further directed to modify existing regulations and adopt new regulations, when needed and possible, to insure that existing regulatory programs are in accord with the water resource policy of this chapter and the program established in subsection (1) of this section.

(3) The department is directed to review all statutes relating to water resources which it is responsible for implementing. When any of the same appear to the department to be ambiguous, unclear, unworkable, unnecessary, or otherwise deficient, it shall make recommendations to the legislature including appropriate proposals for statutory modifications or additions. Whenever it appears that the policies of any such statutes are in conflict with the policies of this chapter, and the department is unable to fully perform as provided in subsection (2) of this section, the department is directed to submit statutory modifications to the legislature which, if enacted, would allow the department to carry out such statutes in harmony with this chapter.

90.66.030 Public policy enunciated -- Maximum benefit from use of public waters -- Irrigation.

The people of the state of Washington recognize that it is in the public interest to conserve and use wisely the public surface and ground waters of the state in a manner that will assure the maximum benefit to the greatest possible number of its citizens. The maximum benefit to the greatest number of citizens through the use of water for the irrigation of agricultural lands will result from providing for the use of such water on family farms. To assure that future permits issued for the use of public waters for irrigation of agricultural lands will be made on the basis of deriving such maximum benefits, in addition to any other requirements in the law, all permits for the withdrawal of public waters for the purpose of irrigating agricultural lands after *the effective date of this act shall be issued in accord with the provisions of this chapter.

WYOMING

WYOMING CONSTITUTION

ARTICLE 8 IRRIGATION AND WATER RIGHTS

<http://legisweb.state.wy.us/statutes/titles/title97.htm>

Section 1. Water is state property.

The water of all natural streams, springs, lakes or other collections of still water, within the boundaries of the state, are hereby declared to be the property of the state.

Section 3. Priority of appropriation.

Priority of appropriation for beneficial uses shall give the better right. No appropriation shall be denied except when such denial is demanded by the public interests.

WYOMING STATUTES

TITLE 41 WATER

<http://legisweb.state.wy.us/statutes/titles/title41/c03a09.htm>

41-3-901. Definitions.

(a) As used in this act [§§ 41-3-901 through 41-3-938], unless the context plainly otherwise requires:

(i) "Person" means a natural person, partnership, association, corporation, municipality, irrigation district, the state of Wyoming, any agency or political subdivision thereof, and the United States or any agency thereof;

(ii) "Underground water" means any water, including hot water and geothermal steam, under the surface of the land or the bed of any stream, lake, reservoir, or other body of surface water, including water that has been exposed to the surface by an excavation such as a pit;

(iii) "Aquifer" means any underground geological structure or formation having boundaries that may be ascertained or reasonably inferred, in which water stands, flows or percolates;

(iv) "Well" means any artificial opening or excavation in the ground, however made, by which underground water is sought or through which it flows under natural pressure or is artificially withdrawn, and a series of wells developed as a unit and pumped collectively by a single pumping unit shall be considered as one (1) well;

(v) "Construction" of a well includes boring, drilling, jetting, digging or excavating, and installing casing, pump and other devices for withdrawing or facilitating the withdrawal of underground water, or measuring the depth to the water table or the flow of the well;

(vi) "Pollution" of underground water means any impairment of the natural quality of such water, however caused, including impairment by salines, minerals, industrial wastes, domestic wastes or sewage, whether indrafted directly or through infiltration into the underground water supply;

(vii) "Additional supply" means underground water for irrigation use which is appurtenant to lands that have a direct flow supply of surface water or have an original supply from another underground water source. The limit of use of additional supply is beneficial use;

(viii) "Hydrothermal system" means a groundwater system, including cold water recharge and transmission and warm and hot water discharge;

(ix) "Hydrothermal feature" means a surface manifestation of a hydrothermal system, including, but not limited to, hot springs, geysers, mud pots and fumaroles.

41-3-902. Spring waters; perfection of right to use; limitation.

All springs and spring waters where the yield does not exceed twenty-five (25) gallons per minute and where the use is for domestic or stock purposes only, shall be considered as groundwater. Perfection of the right to use spring water up to twenty-five (25) gallons per minute for domestic or stock use shall be made in accordance with the laws pertaining to groundwater.

41-3-903. By-product water; definition.

By-product water is water which has not been put to prior beneficial use, and which is a by-product of some nonwater-related economic activity and has been developed only as a result of such activity. By-product water includes, but is not limited to, water resulting from the operation of oil well separator systems or mining activities such as dewatering of mines.

41-3-904. By-product water; appropriation; conditions and limitation.

(a) Any person intending to appropriate by-product water for beneficial use shall file an application with the state engineer on the forms and in the manner prescribed for groundwater applications. By-product water shall be considered as being in the same class as groundwater for the purposes of administration and control. An application may be filed only if both the following conditions exist:

(i) The by-product water is intercepted while it is readily identifiable and before it has commingled with the waters of any live stream, lake, reservoir or other surface watercourse, or part of any groundwater aquifer; and

(ii) The developer of the water is the applicant, or an agreement is filed in the office of the state engineer wherein the developer of the water gives the applicant permission to use the water as proposed in the application. The agreement must be signed by the developer of the water, and may contain provisions for reservation of the water to the use of the developer-grantor, and if so stipulated, the reservation can be superior in right and title to any use by the applicant-grantee.

(b) In all other cases, an application to appropriate by-product water shall be governed by the laws pertaining to surface water, and by-product water shall be considered as part of the surface supply, subject to use by existing priority rights.

41-3-905. Application; generally; registration of vested rights; permit to construct well; registration of formerly exempted wells.

Nothing herein contained shall be construed so as to interfere with the right of any person to use water from any existing well where such water is economically and beneficially used for irrigation or for municipal, railway, industrial or other beneficial use, to the extent only that such continued right does not injuriously affect existing adjudicated surface rights not heretofore abandoned, and such use is hereby declared to constitute a vested right, provided, that the owner of any such right acquired before April 1, 1947, must have filed with the state engineer the statement required by W.S. 41-3-901 through 41-3-938, on or before December 31, 1957, and the owner of any right acquired on or after April 1, 1947, must have registered his well with the state engineer as required by W.S. 41-3-901 through 41-3-938, prior to the effective date of this act, and provided further, that the right to take underground water from any well exempted from the provisions of W.S. 41-3-901 through 41-3-938, that is not exempted from the provisions of this act, and that shall be registered with the state engineer prior to the effective date of this act, shall also constitute a vested right in the use of water with priority as of the time of completion of the well. No well shall be constructed after the effective date of this act unless a permit has been obtained from the state engineer. All existing stock and domestic wells formerly exempted may be registered with the state engineer prior to December 31, 1972. The state engineer shall make appropriate forms for such registration available with each county clerk and at such other places as he deems feasible.

41-3-906. Application; rights subject to preferences; rights of municipal corporations.

Rights to underground water shall be subject to the same preferences as provided by law for surface waters, and rights not preferred may be condemned and changed to a preferred use in the manner provided by law for surface waters. Nothing herein contained shall be construed to impair the rights of municipal corporations to acquire any underground water or underground water rights for a necessary public purpose by eminent domain or condemnation proceedings.

41-3-907. Application; preferred right of appropriations for stock or domestic use.

Appropriations of underground water for stock or domestic use, the latter being defined as household use and the watering of lawns and gardens for noncommercial family use where the area to be irrigated does not exceed one (1) acre, where the yield or flow does not exceed .056 cubic feet per second or twenty-five (25) gallons per minute, shall have a preferred right over rights for all other uses, regardless of their dates of priority, subject to the provisions of W.S. 41-3-911, as amended, if an appropriation is for two (2) or more uses, and includes one (1) of the above preferred uses, the preferred use shall be limited to .056 cubic feet per second or twenty-five (25) gallons per minute, and the application shall specify one (1) acre upon which such preferred uses shall be made. Such preferred use shall not include municipal use by any person of water appropriated by a municipality or company, or any instance where water is purchased or held out for sale.

41-3-908. Division advisory committee; appointment; removal; duties; expense allowances.

(a) In each of the water divisions of the state, as defined in W.S. 41-3-501, there shall be established a division advisory committee on underground water. Each committee shall consist

of three (3) persons, appointed by the governor, who shall in making such appointments, select persons who, in his opinion, will adequately represent the landowners and water users of the division, the geographical areas of the division and the public interest. The first committee in each division shall consist of one (1) member appointed for a term of two (2) years, one (1) member appointed for a term of four (4) years, and one (1) member appointed for a term of six (6) years. Their successors shall each be appointed for a term of six (6) years. The governor may remove any member of any advisory committee as provided in W.S. 9-1-202.

(b) The duties of the division advisory committee on underground water are:

- (i) To call and supervise the election of the members of control area advisory boards;
- (ii) To assist and advise the state engineer and the board regarding policies that affect the underground water of this state, such assistance and advice to consider both the interests of underground water users and the interests of the general public;
- (iii) To provide advice and assistance to the state engineer and superintendents in arriving at solutions to underground water problems as they arise within the water division;
- (iv) To provide advice and assistance to control area advisory boards, particularly in the development of control measures which are recommended to the state engineer for adoption;
- (v) To provide underground water users within the division with information relative to the policies and procedures of the state engineer and board which affect the use of underground water.

(c) The members of each of the division advisory committees shall receive the same per diem, mileage and expense allowances while attending and traveling to and from control area board meetings and other official business of the committee in the same manner and amount as employees of the state.

41-3-909. State engineer; powers generally.

(a) In the administration and enforcement of this act [§§ 41-3-901 through 41-3-938] and in the effectuation of the policy of the state to conserve its underground water resources, the state engineer is authorized and empowered on advice and consent of the board of control:

- (i) To prescribe such rules and regulations as may be necessary or desirable to enable him to efficiently administer this act;
- (ii) To require such reports from well drillers as may be necessary or desirable;
- (iii) To require such annual reports from underground water users as may be necessary or desirable;
- (iv) To make such investigations as may be necessary or desirable, and to cooperate in such investigations with agencies of the United States, agencies of this state or any other

state, political subdivision of this state, any public or private corporation, or any association or individual;

(v) To make regulations concerning the spacing, distribution and location of wells in critical areas;

(vi) To establish standards for the construction of wells, to work with the division advisory board, governmental subdivisions, and water user organizations to encourage the adoption of local standards of beneficial use and methods of conveyance and application of water designed to conserve and prevent waste of supplies;

(vii) To require, whenever practical, all flowing wells to be so capped or equipped that the flow of water can be stopped when the wells are not in use, and to require both flowing and nonflowing wells to be so constructed and maintained as to prevent the waste of underground water either above or below the land surface;

(viii) To require the abatement of any condition, or the sealing of any well, responsible for the admission of polluting materials into an underground water supply;

(ix) To delegate any of the duties and powers imposed or granted by this act, to the deputy state engineer or to an assistant state engineer, or other qualified member of his staff;

(x) To bring suit to enjoin the construction of illegal wells or the withdrawal or use of water therefrom, or to enforce any of the provisions of this act or of orders issued thereunder, and to intervene in any action or proceeding when it appears that the determination of such action or proceeding may result in the depletion of underground water resources of the state contrary to the policy expressed in this act.

41-3-910. State engineer; power to determine area and boundaries of districts.

The state engineer is authorized and directed to determine the area and boundaries of districts overlying the various aquifers yielding underground waters in this state and to assign to each district a distinctive name or number. He may establish subdistricts when parts of an aquifer require or may require separate regulations from the rest. He may alter the boundaries of such districts and subdistricts at any time. He may establish different districts for different aquifers that overlie each other in whole or in part.

41-3-911. Authority to order interfering appropriator to cease withdrawals of water; hearing complaints by appropriators.

(a) Whenever a well withdrawing water for beneficial purposes shall interfere unreasonably with an adequate well developed solely for domestic or stock uses as defined in W.S. 41-3-907, whether in a control area or not, the state engineer may, on complaint of the operator of the stock or domestic well, order the interfering appropriator to cease or reduce withdrawals of underground water, unless such appropriator shall furnish at his own expense, sufficient water at the former place of use to meet the need for domestic or stock use. In case of interference between two (2) wells utilizing water for stock or domestic use as defined in W.S. 41-3-907, the appropriation with the earliest priority shall have the better right.

(b) Any appropriator of either surface or underground water may file a written complaint alleging interference with his water right by a junior right. Complaints are to be filed with the state engineer and are to be accompanied by a fee of one hundred dollars (\$100.00) to help defray costs of investigation. This section is not applicable to interference between two (2) surface water rights. Upon receiving the complaint and fee, the state engineer shall undertake an investigation to determine if the alleged interference does exist. Following the investigation, the state engineer shall issue a report to all interested parties stating his findings. The report may suggest various means of stopping, rectifying or ameliorating the interference or damage caused thereby.

(c) Any interested appropriator who is dissatisfied with the results of the foregoing procedure may proceed under the applicable provisions of the Wyoming Administrative Procedure Act [§§ 16-3-101 through 16-3-115]. If a hearing is to be held, it shall be held before the appropriate water division superintendent. The superintendent shall report to the board of control at its next meeting. The board shall issue its order to include findings of fact and conclusions of law.

41-3-912. Control areas; board member districts; designation; redesignation; duty of state engineer; hearings.

(a) "Control area" means any underground water district or subdistrict that has been so designated by the board of control. The board of control may designate a control area for the following reasons:

- (i) The use of underground water is approaching a use equal to the current recharge rate;
- (ii) Ground water levels are declining or have declined excessively;
- (iii) Conflicts between users are occurring or are foreseeable;
- (iv) The waste of water is occurring or may occur; or
- (v) Other conditions exist or may arise that require regulation for the protection of the public interest.

(b) Whenever the engineer has information leading him to believe that any underground water district or subdistrict should become a control area, he shall immediately report in writing to the board of control all information known by him with reference to said area.

(c) The board of control shall fix a time and place to consider the information supplied by the state engineer and hear any other evidence presented at the time of the hearing. At the conclusion of the hearing, the board of control shall issue an order declaring that the area in question is or is not to be a control area. If the board determines that a control area needs to be created, it shall define the area geographically and stratigraphically. The board of control may designate five (5) board member districts for the purpose of the election of the control area advisory board.

(d) On the petition of five (5) persons owning or entitled by public land filing to the possession of land within the control area, or upon the recommendation of the state engineer, the

board of control may consider the redesignation of the geographic or stratigraphic boundaries of a control area. If redesignation is considered, the board shall fix a time and place to hear the information supplied by the petitioners, the state engineer or other interested persons. Within ninety (90) days of the hearing, the board shall issue its order. If a control area is redesignated geographically, the board shall determine whether to divide the area into board member districts pursuant to subsection (c) of this section.

(e) On the petition of five (5) persons owning or entitled by public land filing to the possession of land within the control area, the control area advisory board shall consider the designation or redesignation of board member districts. If the control area advisory board determines that board member districts should be designated or redesignated, it shall submit its recommendation to the board of control for approval.

(f) The action of the board of control in denying at any time a petition or recommendation for redesignation is final and not subject to review.

(g) Whenever a control area has been designated or redesignated the state engineer may, without hearings or other proceedings, refuse to grant permits for the drilling of any wells within the control area.

41-3-913. Control areas; election of control area advisory board; mileage and expense allowances.

(a) When an underground water district or subdistrict is declared to be a control area, when the board of control geographically redesignates a control area or when the board of control approves the recommendation of a control area advisory board that board member districts be designated or redesignated, a control area advisory board shall be created in the manner provided herein. The control area advisory board shall consist of five (5) adults who own land or underground water rights, or who are the officers, officials or members of the board of a corporation which owns land or underground water rights within the control area. The board shall represent the entire control area.

(b) The state engineer shall notify the division advisory committee of the division in which the control area is located, of the designation or redesignation of the control area. Within twenty (20) days of notification, the division advisory committee shall select a nominating committee of not less than three (3) persons entitled to vote in the election of the control area advisory board. The nominating committee shall nominate not less than five (5) persons for election to the control area advisory board or, if board member districts have been established, it shall nominate at least one (1) person for election in each district. Within thirty (30) days of its selection, the nominating committee shall report its nominations to the division advisory committee. The division advisory committee shall call an election of members of the control area advisory board, to be held within forty (40) days from the date of the report. The call of the election shall state the time, the place within the control area, the purpose of the election, and the names of persons nominated for election. It shall be published for two (2) consecutive weeks at least twenty (20) days prior to the election in a newspaper of general circulation in each county in which a part of the control area or board member district lies.

(c) Every person or corporation owning or, by virtue of public land filing, entitled to possession of land which is a part of the control area is entitled to cast for each member to be

elected one (1) vote for each acre of such land as assessed upon the last annual assessment roll of the county in which the land is located, or as shown by the public land filing. A person owning a tract of land of less than one (1) acre is entitled to cast one (1) vote for each member to be elected. The grantee or assignee of the water in or under any described land is entitled to vote, as prescribed herein, in the place of the person or corporation owning or entitled to the possession of the land. However, if board member districts are established, only the votes which derive from within each district shall be cast in the election of the district board member.

(d) At the hour and place of the election the division advisory committee shall call the roll of those entitled to vote, and the number of votes each is entitled to. They shall make a record of the qualified voters present, receive all proxies and prescribe the method of canvassing the votes. All proxies shall be in writing and signed by the person entitled to vote. The five (5) persons receiving the highest number of votes, or the person receiving the highest number of votes within each board member district, shall be declared to be elected, regardless of whether or not they have received a majority of votes cast. No election shall be invalid because a majority of the acreage of the control area or board member district was not represented at the election. Two (2) of the members so elected shall serve until one (1) year from the third Tuesday in July of the year following the election, and three (3) of the members so elected shall serve until two (2) years following such date. The division advisory committee shall decide by lot which members shall serve for these terms.

(e) During the first fifteen (15) days of July next preceding the expiration of the term of any member an election shall be held to elect members of the control area advisory board. The control area advisory board shall call and conduct the election in the same manner prescribed for the first election. Members elected at any election after the first election shall serve for a term of four (4) years. Whenever the office of any member becomes vacant for any cause, a person to fill the vacancy of the unexpired term shall be appointed by the remaining members. The costs of elections shall be paid by the state engineer's office.

(f) Each member of the control area advisory board shall receive the same per diem, mileage and expense allowances while attending and traveling to and from meetings of the board and other official business of the board in the same manner and amount as employees of the state. No person shall represent more than one (1) board member district during any term of office, and no person shall serve on a control area advisory board for more than two (2) consecutive terms.

41-3-914. Adjudication of waters within control area.

(a) After the boundaries of any control area have been determined by the board, the appropriate superintendent shall proceed with the adjudication of unadjudicated wells within the control area. After completing the adjudication, the superintendent shall hold evidence of the adjudication open for inspection by the public at a time and place to be fixed by the superintendent, and notice thereof shall be published in two (2) issues of a newspaper of general circulation in the county or counties where the control area is situated.

(b) If any well owner, lessee or user within a control area refuses to adjudicate a well, or supply the necessary information to permit adjudication of any well, the superintendent may tag and lock the pump or well to prevent use of water therefrom. The penalty for interfering with the tag or lock on a well is as provided in W.S. 41-3-938. The use of water from a well so tagged and

locked is prima facie evidence that the well owner, lessee or user has violated the provisions of this section.

(c) The taking of proof, filing objections or contests, giving notices, conducting of hearings, making adjudications of water rights, determining of priorities as between appropriators, issuing of certificate of appropriation, and taking appeals shall, insofar as applicable, and not in conflict with the provisions of this act [§§ 41-3-901 through 41-3-938] be governed by the provisions of W.S. 41-4-101 through 41-4-207 and 41-4-211 through 41-4-517.

(d) At the first regular meeting of the board after completion of such proof and advertisement, the board shall cause to be entered in the records of its office an order showing the priorities of right to the use of water in the control area, the amount of appropriation of the parties claiming water therefrom, the character and kind of use for which the appropriation is made, and the places or points of use. The secretary of the board shall issue to each person represented in the determination, a certificate of appropriation signed by the president of the board and attested under seal of the secretary of the board which shall state the name and post-office address of the appropriator, the priority date of the appropriation, the amount of water appropriated, the use to which the water has been applied and, if the appropriation is for irrigation, a description of the legal subdivision of land to which the water is applied, or the place of use if the appropriation is not being used for irrigation. The certificate shall be transmitted by certified mail to the county clerk of the county in which the appropriation has been made and the county clerk shall, upon receipt of the proper fee, record the same and thereupon immediately transmit the certificate to the appropriator. At the time of the submission of final proof of appropriation before the state engineer or superintendent of a water division, a fee not to exceed fifty dollars (\$50.00) shall be collected, which shall be used for advertising the proof of appropriation and recording the certificate. The priority of appropriation shall be the determining factor in adjudicating underground water; the person first making the appropriation being first entitled to the use of the underground water, except as modified by W.S. 41-3-933.

41-3-915. Control areas; hearing to determine adequacy of water for all appropriators; corrective controls generally; agreements in lieu of controls.

(a) After designation of an area as a control area by the board, the state engineer may temporarily adopt any of the corrective controls provided for by this section, where it appears that immediate regulation is required. After the well adjudication procedure has been completed, the state engineer may, on his own motion, and shall on the petition of twenty (20) appropriators or of one-tenth of the appropriators of water from a control area, cause a hearing to be held before the state engineer and the control area advisory board to determine whether the underground water in the area is adequate for the needs of all appropriators of underground water in such area. Public notice of the time and place of the hearing shall be published once in a newspaper circulated in the area not more than thirty (30) days before the time set for the meeting. If the state engineer finds after the hearing, and after receiving the advice of the control area advisory board, that the underground water in the control area is insufficient for all of the appropriators, he may by order adopt one (1) or more of the following corrective controls:

(i) He may close the controlled area to any further appropriation of underground water, in which event he shall thereafter refuse to grant any applications for a permit to appropriate underground water in that area, provided, that such area may be reopened to appropriations at any time the state engineer shall find on the basis of additional evidence

that there is unappropriated water in the area, in which event the state engineer shall reconsider all applications for permits refused on the grounds of the order closing the area;

(ii) He may determine the permissible total withdrawal of underground water in the control area for each day, month or year, and, insofar as may be reasonably done, he shall apportion such permissible total withdrawal among the appropriators holding valid rights to the underground water in the control area in accordance with the relative dates of priority of such rights;

(iii) If he finds that withdrawals by junior appropriators have a material and adverse effect upon the supply available for and needed by senior appropriators, he may order such junior appropriators to cease or reduce withdrawals forthwith;

(iv) If he finds that cessation or reduction of withdrawals by junior appropriators will not result in proportionate benefits to senior appropriators, he may require and specify a system of rotation of use of underground water in the controlled area;

(v) He may institute well spacing requirements if permits are granted to develop new wells.

(b) The state engineer shall cause a copy of any such order to be served upon each person affected thereby in the manner provided for service of process in civil actions.

(c) Appropriators of underground water from a control area may agree to any method or scheme of control of withdrawals, well spacing, apportionment, rotation or proration of the common supply of underground water. The state engineer shall encourage and promote such agreements and supply the parties with information and advice. When the state engineer, with the advice of the control area advisory board, shall find that any such agreement, executed in writing and filed in his office, is consistent with the intent, purposes and requirements of this act [§§ 41-3-901 through 41-3-938], and would not be detrimental to the public interest or to the rights of other persons not parties to the agreement, he shall approve the agreement, and thereafter such agreement shall control, until terminated as hereinafter provided, in lieu of any order issued pursuant to subsection (a) of this section.

(d) Any agreement approved by the state engineer may be terminated by the terms of the agreement, by the consent of the parties, or by order of the state engineer if he finds, after investigation and a public hearing before the control area advisory board, held at least two (2) weeks after one (1) published notice in a newspaper of general circulation in each county in which a part of the control area lies, that the agreement is not being substantially complied with by the parties, or that changed conditions have made the agreement inequitable, or that the continuance of the agreement is no longer consistent with the intent, purpose and requirements of this act, or is a detriment to the public interest or to the rights of other persons not parties to the agreement.

41-3-916. Priority of rights when 1 source of supply.

Where underground waters in different aquifers are so interconnected as to constitute in fact one source of supply, or where underground waters and the waters of surface streams are so

interconnected as to constitute in fact one source of supply, priorities of rights to the use of all such interconnected waters shall be correlated and such single schedule of priorities shall relate to the whole common water supply. The state engineer may by order adopt any of the corrective controls specified in W.S. 41-3-915.

41-3-917. Change of location of well without loss of priority; appeal from action of state board of control or state engineer.

(a) An appropriator of underground water may change the location of his well to a point within the same aquifer in the vicinity of the original location, without loss of priority, by securing approval of the state board of control if the groundwater right has been adjudicated or if the groundwater right has not been adjudicated but the water has been applied to beneficial use. In cases involving domestic or stock water wells which are not adjudicated but the water has been applied to beneficial use, the state engineer may approve a change of location. If the right is not adjudicated and the water has not been applied to beneficial use, approval for the change in location may be granted by the state engineer. No petition shall be granted if the rights of other appropriators shall be injuriously affected thereby. No petition granted shall increase the total amount of the appropriation of water set forth in the original permit. The state board of control and the state engineer may make such regulations as may be necessary to carry out the provisions of this section. The state engineer may approve a change of well location even if water has not been applied to a beneficial use.

(b) A decision by the state engineer granting or denying a petition to change the location of an unadjudicated right under this section may be appealed to the board of control. An appeal may be taken to the district court pursuant to W.S. 16-3-101 through 16-3-115 from an order of the board of control:

(i) Affirming or reversing a decision of the state engineer appealed to the board under this subsection; or

(ii) Granting or denying a petition to change the location of an adjudicated right under this section.

41-3-918. Appeals.

Any person aggrieved by an order of the board or of the state engineer concerning underground water, or by their or his failure to act, may appeal in the manner provided by W.S. 41-4-517, and the Wyoming Administrative Procedure Act [§§ 16-3-101 through 16-3-115].

41-3-919. Prohibited acts; penalty for violation.

Any person who withdraws underground water or who fails to stop or reduce the flow of underground water in violation of any order of the state engineer made pursuant to this act [§§ 41-3-901 through 41-3-938], or any person who does not have a permit, certificate or vested right to appropriate underground water who shall withdraw underground water from any well other than a well for stock or domestic purposes as defined in W.S. 41-3-907, is guilty of a misdemeanor and upon conviction shall be punished under W.S. 41-3-614.

41-3-930. Application; who required to file; filing; contents; use of water from existing well; statement of claim.

(a) Any person who intends to acquire the right to beneficial use of any underground water in the state of Wyoming, shall, before commencing construction of any well or other means of obtaining underground water or performing any work in connection with construction or proposed appropriation of underground water or any manner utilizing the water for beneficial purposes, file with the state engineer an application for a permit to make the appropriation and shall not proceed with any construction or work until a permit is granted by the state engineer, provided, that whenever a bore hole constructed for mineral exploration, oil and gas exploration, stratigraphic information or any other purpose not related to groundwater development shall be found to be suitable for the withdrawal of underground water, application shall be filed with and approved by the state engineer before water from the bore hole is beneficially utilized. The application shall contain the name and post-office address of applicant or applicants, a detailed description of the proposed use, the location by legal subdivision of the proposed well or other means of obtaining underground water, the estimated depth of the proposed well, the quantity of water proposed to be withdrawn and beneficially utilized in gallons per minute and acre-feet per calendar year, the location by legal subdivision of the area or point of use shall be provided, and such other information as the state engineer may require.

(b) In addition to providing the information required in subsection (a) of this section, applications for permits to appropriate groundwater, geothermal or otherwise, located within fifteen (15) miles of the boundary of Yellowstone National Park shall be accompanied by a written report prepared by a qualified professional and containing such geologic, hydrologic and other information necessary to show that the proposed development will not impair or produce an injurious effect on the hydrothermal system or hydrothermal features located within the boundaries of Yellowstone National Park. The state engineer shall consider all the information provided by the applicant and any other information available to him or necessary to make an informed decision before acting on the application. If upon review of the submitted information or other records available to him, the state engineer determines that the applicant has not shown that the proposed development will not impair or produce an injurious effect upon the hydrothermal features located within the boundaries of Yellowstone National Park, the state engineer shall deny the application for permit. Wells for domestic and stock purposes as defined in W.S. 41-3-907 will be exempt from the requirements of this section.

(c) Nothing in this section shall be construed so as to interfere with the right of any person to use water from any existing well constructed prior to May 24, 1969 where the water is economically and beneficially used for stock or domestic use as provided by W.S. 41-3-907, and the uses from the well are hereby declared to constitute a vested right, provided, that the owner of the water right must have registered the right prior to December 31, 1972. If the water right was not registered prior to December 31, 1972 an application shall be filed in accordance with the provisions of this section to obtain a water right and the applicant shall receive, as the water right priority date, the date the application is received by the state engineer.

41-3-931. Application; when granted generally; denial subject to review; defects and corrections generally; cancellation.

An application for a permit for a well in any areas not designated as a critical area shall be granted as a matter of course, if the proposed use is beneficial and, if the state engineer finds that the proposed means of diversion and construction are adequate. If the state engineer finds that to

grant the application as a matter of course, would not be in public's water interest, then he may deny the application subject to review at the next meeting of the state board of control. If the state engineer shall find that the proposed means of diversion or construction are inadequate, or if the application is otherwise defective, he may return the application for correction. If such correction is not made within ninety (90) days, the state engineer may cancel the application.

41-3-932. Public notice of application or petition; hearing before state engineer and control area advisory board; cost.

(a) Upon the filing of a petition to amend an existing water right or an application to appropriate underground water for any use other than domestic, stockwatering or miscellaneous purposes where the quantity of water to be appropriated is twenty-five (25) gallons of water per minute or less, from an area designated as a control area by the state board of control, the state engineer shall cause to be published, at applicant's expense, in a newspaper of general circulation in the county wherein the proposed well or requested change will be located, for at least once a week for three (3) consecutive weeks, a notice of the filing of the application or requested changes and that objections to the granting thereof may be filed within ten (10) days after the last publication of the notice, on the grounds that there is no unappropriated water in the proposed source of supply or that the granting of the application would be detrimental to the public interest. If objections are filed within the time specified in the notice, the state engineer shall set a date for a hearing on the application or requested changes and the objections thereto and shall notify the applicant or petitioner and the objectors thereof. If the applicant or petitioner questions the standing of the objector, the state engineer shall make written findings of fact on the issue and may overrule the objection on that basis. The hearing shall be before the control area advisory board and the state engineer or state board of control, and shall be held in an appropriate place within the county in which the proposed well or requested change is to be located.

(b) If no objections are filed against the application or petition but the state engineer is of the opinion that the application or petition may be detrimental to the public interest, or desires to obtain the recommendations of the control area advisory board, he shall set a date for a hearing on the application or petition and shall notify the applicant or petitioner of the time and place thereof. The hearing shall be open to the public, and shall be held before the control area advisory board and the state engineer or the state board of control in an appropriate place in the county in which the proposed well or requested change is to be located. In making any determination required by this section, the state engineer may rely upon records and information on file in his office or in the office of the board. In the event a hearing is held he shall make known to the parties the records and information upon which he relies. The state engineer, for good cause, may impose costs of the hearing proportionally upon the applicant or petitioner and the objectors.

(c) The application or petition shall be granted and the permit issued only if the state engineer finds, after receiving the advice of the control area advisory board, that there are unappropriated waters in the proposed source, that the proposed means of diversion or construction is adequate, that the location of the proposed well or other work does not conflict with any well spacing or well distribution regulation, and that the proposed use would not be detrimental to the public interest. If the state engineer finds that the application or petition is incomplete or otherwise defective, he shall return the application or petition for correction. If the correction is not made within ninety (90) days, the application or petition shall be rejected.

(d) All procedures set forth in this section shall be conducted in conformance with and subject to the provisions of the Wyoming Administrative Procedure Act.

41-3-933. Express conditions limiting rights of appropriator; additional conditions.

It is an express condition of each underground water permit that the right of the appropriator does not include the right to have the water level or artesian pressure at the appropriator's point of diversion maintained at any level or pressure higher than that required for maximum beneficial use of the water in the source of supply. The state engineer may issue any permits subject to such conditions as he may find to be in the public interest.

41-3-934. Time limits to complete construction; extensions; cancellation generally.

If the permit is granted, the applicant shall complete the construction and apply the water to beneficial use before the date specified in the conditions of approval, which shall not be more than three (3) years after the date of approval. The state engineer may extend the period or cancel the permit in accordance with the procedures set forth in W.S. 41-4-506.

41-3-935. Adjudication procedure.

(a) Any person constructing any well under a permit shall, within thirty (30) days after the completion or abandonment of such work, report to the state engineer the data required relating to such well, on forms furnished by the state engineer. A well shall be considered complete when it is possible to install a pump and pump water. In the case of an artesian well, completion is the time when the drill rig is moved off of the drilling site.

(b) Adjudication of all ground water rights except stock watering and domestic uses of ground water referenced in W.S. 41-3-907 shall proceed upon completion of the work according to the terms of the permit and the recording on forms furnished by the state engineer of such information as is deemed necessary concerning the works, and the filing of a map signed by a Wyoming licensed professional engineer or land surveyor, showing the location of the well and the point or points of use. The state engineer or his authorized representative shall inspect the works, the lands irrigated or other uses being made of the water upon receipt of the map. The adjudication of stock watering and domestic uses of ground water referenced in W.S. 41-3-907 may be initiated by the state engineer or the appropriator of record and will not require the filing of a map signed by a Wyoming licensed professional engineer or land surveyor, showing the location of the well and the points and areas of use or require the inspection by the state engineer or his authorized representative of the works, the lands irrigated or other uses being made of the water unless, in the discretion of the state engineer, such procedures are deemed necessary and appropriate. At this time the board may consider for adjudication the ground water rights upon proof of beneficial use being submitted by the appropriator.

(c) Adjudication shall proceed in the same manner prescribed for the adjudication of surface water appropriations once the state engineer or his authorized representative has reported his findings to the board. A ground water appropriation attaches to the land for irrigation, or for such other purposes or object for which it was acquired.

(d) In the interest of an orderly adjudication procedure for ground water, the state engineer, with the concurrence of the board, may order adjudication of any ground water appropriations in the state. Upon one (1) year notice, any appropriator whose appropriation is to be adjudicated

shall furnish the state engineer all of the documents mentioned in subsection (b) of this section. If any appropriator refuses to supply any of this information, the superintendent may tag and lock the well. Any appropriator that interferes with the tag or lock is subject to the same penalty as provided in W.S. 41-3-938. Use of water well so tagged or locked is prima facie evidence of such interference.

41-3-936. Priority of appropriation.

The priority of appropriation of underground water obtained prior to April 1, 1947, shall date from time of completion of the well. The priority of appropriation of underground water obtained subsequent to April 1, 1947, and prior to March 1, 1958, shall date from the filing of registration in the state engineer's office. The priority of appropriation of underground water obtained on or subsequent to March 1, 1958, shall date from the filing of the application for permit in the state engineer's office. Priority of appropriation of underground water for stock or domestic purposes, as defined in W.S. 41-3-907, shall date from the time of completion of the well if properly registered with the state engineer prior to December 31, 1972. If registered with the state engineer subsequent to December 31, 1972, the priority shall date from the filing or registration in the state engineer's office.

41-3-937. Cancellation or suspension of permits or certificates.

Whenever, after notice to and opportunity to be heard by such holder, the state engineer finds that the holder of any permit is willfully violating or has willfully violated any provision of such permit or any provision of this act [§§ 41-3-901 through 41-3-938] or of any order issued pursuant to this act, the state engineer may cancel or suspend such permit or impose conditions on the future use thereof to prevent such violation. Whenever, after notice to and opportunity to be heard by such holder, the board of control finds that the holder of any certificate of registration or certificate of appropriation is willfully violating or has willfully violated any provision of such certificate or any provision of this act or of any order issued pursuant to this act, the board of control may cancel or suspend such certificate or impose conditions on the future use thereof to prevent such violation.

41-3-938. Penalty.

Any person who drills, digs or constructs any works for the securing of underground water without having obtained a permit is guilty of a misdemeanor and upon conviction shall be punished under W.S. 41-3-614.