CHAPTER 534

UNDERGROUND WATER AND WELLS

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GENERAL PROVISIONS

NAC 534.010 Definitions. (NRS 534.020, 534.110) As used in this chapter, unless the context otherwise requires, the words and terms defined in NAC 534.015 to 534.245, inclusive, have the meanings ascribed to them in those sections.
(Supplied in codification; A by St. Engineer, 1-9-90; 12-30-97)

NAC 534.015 "Abandon" defined. (NRS 534.020, 534.110) "Abandon" means to discontinue the use of a well or borehole or to leave the well or borehole in such a state of disrepair that to use it would be impracticable, may result in contamination of groundwater or may otherwise pose a hazard to the health or safety of the general public.
(Added to NAC by St. Engineer, eff. 1-9-90; A 12-30-97)

NAC 534.020 "Annular space" defined. (NRS 534.020, 534.110) "Annular space" means the space between two cylindrical objects, one of which surrounds the other, such as the space between the walls of the well bore and the casing.
[St. Engineer, Drilling Wells Reg. § 1.01, eff. 5-19-81]—(NAC A 1-9-90; 12-30-97)

NAC 534.030 "Aquifer" defined. (NRS 534.020, 534.110) "Aquifer" has the meaning ascribed to it in NRS 534.0105.
[St. Engineer, Drilling Wells Reg. § 1.02, eff. 5-19-81]—(NAC A 1-9-90)

NAC 534.040 "Artesian well" defined. (NRS 534.020, 534.110) "Artesian well" has the meaning ascribed to it in NRS 534.012.
[St. Engineer, Drilling Wells Reg. § 1.03, eff. 5-19-81]—(NAC A 1-9-90)

NAC 534.041 "Bentonite chips" defined. (NRS 534.020, 534.110) "Bentonite chips" means a crushed or crushed and formed raw, native predominantly sodium montmorillonite clay which:
1. Has a size gradation between 3/4 inch and 8 mesh;
2. Is designed for dry installation that hydrates and swells upon contact with water as a sealant for hole plugging, casing seals or any vertical seal to prevent water movement up or down a borehole; and
3. May be coated to retard hydration for in-water applications.

➥ The term includes, without limitation, chip bentonite, bentonite pellets or bentonite tablets.
(Added to NAC by St. Engineer by R039-12, eff. 6-29-2012)

NAC 534.042 "Bentonite grout" defined. (NRS 534.020, 534.110) "Bentonite grout" means a commercially manufactured product consisting of the sodium montmorillonite that, when mixed with water pursuant to the specifications recommended by the manufacturer, is specifically designed by the manufacturer to seal and plug wells and boreholes and:
1. Consists of not more than 80 percent water and not less than 20 percent sodium bentonite by weight of water, except that additional additives may increase the solids ratio above and beyond the minimum 20 percent sodium bentonite;
2. Is easily hydrated when mixed with fresh water in the ratio of 24 gallons for every 50-pound bag of bentonite grout;
3. Has hydraulic conductivity or permeability values of 10^{-7} centimeters per second or less; and
4. Has a fluid weight of not less than 9.4 pounds per gallon.
(Added to NAC by St. Engineer, eff. 12-30-97; A by R009-06, 6-1-2006; R039-12, 6-29-2012; R044-14, 10-24-2014)

NAC 534.043 "Blast hole" defined. (NRS 534.020, 534.110) "Blast hole" means a borehole that is drilled and, as soon as practicable, is loaded with explosives for mining purposes.

(Added to NAC by St. Engineer, eff. 12-30-97)

NAC 534.045 "Board" defined. (NRS 534.020, 534.110) "Board" means the statewide Well Drillers' Advisory Board.

(Added to NAC by St. Engineer, eff. 1-9-90)

NAC 534.047 "Borehole" defined. (NRS 534.020, 534.110) "Borehole" means a penetration in the ground that is deeper than the longest dimension of its opening at the surface and is made to obtain geologic, geophysical or geotechnical information relating to engineering or for any purpose other than for use as a well.

(Added to NAC by St. Engineer, eff. 12-30-97; A by R039-12, 6-29-2012)

NAC 534.048 "Bridge" defined. (NRS 534.020, 534.110) "Bridge" means an obstruction in the well bore or annular space of a borehole or well caused when the walls of the well bore collapse or when materials are jammed or wedged into the well bore or annular space.

(Added to NAC by St. Engineer, eff. 12-30-97)

NAC 534.050 "Casing" defined. (NRS 534.020, 534.110) "Casing" means the conduit required to prevent waste and contamination of the groundwater and to hold the formation open during the construction or use of the well.

[St. Engineer, Drilling Wells Reg. § 1.04, eff. 5-19-81]—(NAC A 1-9-90)

NAC 534.060 "Cement grout" defined. (NRS 534.020, 534.110) "Cement grout" means a mixture consisting of equal parts by volume of portland cement and sand, consisting of a grain size of not more than 2 millimeters, with not more than 6 gallons of water for each 94-pound bag (1 cubic foot) of cement. For example, one cubic yard of cement grout contains 12 bags of cement, 72 gallons of water and not more than 13 cubic feet of sand.

[St. Engineer, Drilling Wells Reg. § 1.14, eff. 5-19-81]—(NAC A 1-9-90; R039-12, 6-29-2012)

NAC 534.065 "Cement-bentonite grout" defined. (NRS 534.020, 534.110) "Cement-bentonite grout" means a mixture of sodium bentonite and portland cement that, when mixed with water, is specifically designed to seal and plug instrumentation boreholes and:

1. Consists of a range of water to cement to bentonite ratios by weight of between 2.5 to 1 to 0.3 and 4 to 1 to 1. For example, the ratio by weight of 2.5 to 1 to 0.3 is obtained by mixing 30 gallons of water per 94-pound bag of portland cement with 25 pounds of bentonite and the ratio by weight of 4 to 1 to 1 is obtained by mixing 45 gallons of water per 94-pound bag of portland cement with 94 pounds of bentonite;
2. Has hydraulic conductivity or permeability values of 10^{-7} centimeters per second or less;
3. Has a fluid weight of not less than 10 pounds per gallon; and
4. Has a 28-day compressive strength of at least 100 pounds per square inch.

(Added to NAC by St. Engineer by R039-12, eff. 6-29-2012)

NAC 534.070 "Concrete grout" defined. (NRS 534.020, 534.110) "Concrete grout" means a mixture of portland cement, sand, 1/4-inch minus aggregate and water which contains at least five bags of cement per cubic yard of concrete and not more than 7 gallons of clean water per bag of cement (1 cubic foot or 94 pounds).

[St. Engineer, Drilling Wells Reg. § 1.13, eff. 5-19-81]—(NAC A 1-9-90)

NAC 534.080 "Conductor casing" defined. (NRS 534.020, 534.110) "Conductor casing" means the temporary or permanent casing used in the upper portion of the well bore to prevent collapse of the formation during the construction of the well or to conduct the gravel pack to the perforated or screened areas in the casing.

[St. Engineer, Drilling Wells Reg. § 1.05, eff. 5-19-81]—(NAC A 1-9-90; 12-30-97)

NAC 534.094 "Contaminant" defined. (NRS 534.020, 534.110) "Contaminant" means any chemical, mineral, live organism, organic material, radioactive material or heated or cooled water that may adversely affect the quality of groundwater.

(Added to NAC by St. Engineer, eff. 12-30-97)

NAC 534.095 "Contamination" defined. (NRS 534.020, 534.110) "Contamination" means the impairment of water quality by the introduction of contaminants into the groundwater.

(Added to NAC by St. Engineer, eff. 1-9-90; A 12-30-97)

NAC 534.097 "Development of a well" defined. (NRS 534.020, 534.110) "Development of a well" means the process of cleaning out materials introduced during the drilling process before putting a well into service and increasing the discharge capacity of the well.

(Added to NAC by St. Engineer by R044-14, eff. 10-24-2014)

NAC 534.100 "Division" defined. (NRS 534.020, 534.110) "Division" means the Division of Water Resources of the State Department of Conservation and Natural Resources.

[St. Engineer, Drilling Wells Reg. § 1.07, eff. 5-19-81]

NAC 534.110 "Domestic use" defined. (NRS 534.020, 534.110) "Domestic use" has the meaning ascribed to it NRS 534.013.

[St. Engineer, Drilling Wells Reg. § 1.08, eff. 5-19-81]—(NAC A 1-9-90)

NAC 534.112 "Drill rig" defined. (NRS 534.020, 534.110) "Drill rig" means any power-driven percussion, rotary, boring, coring, digging, jetting or augering machine used in the construction of a well or borehole.

(Added to NAC by St. Engineer, eff. 12-30-97)

NAC 534.113 "Drive point well" defined. (NRS 534.020, 534.110) "Drive point well" means a temporary monitoring well constructed by driving a drive point attached to the end of a section of pipe into the ground for the purpose of obtaining geotechnical or environmental information. The term is synonymous with a push point well.

(Added to NAC by St. Engineer, eff. 1-9-90; A 12-30-97)

NAC 534.120 "Exploratory well" defined. (NRS 534.020, 534.110) "Exploratory well" means a borehole or well constructed to determine the availability, quantity or quality of water or whether an aquifer is capable of transmitting water to a well.

[St. Engineer, Drilling Wells Reg. § 1.09, eff. 5-19-81]—(NAC A 1-9-90; 12-30-97; R044-14, 10-24-2014)

NAC 534.140 "Groundwater" defined. (NRS 534.020, 534.110) "Groundwater" means water below the surface of the land that is in a zone of saturation.

[St. Engineer, Drilling Wells Reg. § 1.11, eff. 5-19-81]—(NAC A 12-30-97)

NAC 534.144 "Instrumentation borehole" defined. (NRS 534.020, 534.110) "Instrumentation borehole" means a borehole constructed by intentionally placing or leaving any monitoring instrumentation in the hole as the hole is plugged and sealed at the time of construction.

(Added to NAC by St. Engineer by R039-12, eff. 6-29-2012)

NAC 534.148 "Monitoring well" defined. (NRS 534.020, 534.110) "Monitoring well" means any well that is constructed to evaluate, observe or determine the quality, quantity, temperature, pressure or other characteristic of groundwater or an aquifer. The term includes an observation well, piezometer, drive point well or vapor extraction well. The term does not include an instrumentation borehole that is plugged and sealed and is not open to the atmosphere upon completion.

(Added to NAC by St. Engineer, eff. 12-30-97; A by R039-12, 6-29-2012)

NAC 534.150 "Neat cement" defined. (NRS 534.020, 534.110) "Neat cement" means a mixture of:

1. Clean water and cement in a ratio of not more than 5.2 gallons of water per bag of portland cement (1 cubic foot or 94 pounds); or
2. Clean water, cement and sodium bentonite in a ratio of not more than 7.8 gallons of water per 3.76 pounds of sodium bentonite by dry weight and one bag of portland cement (1 cubic foot or 94 pounds).

[St. Engineer, Drilling Wells Reg. § 1.12, eff. 5-19-81]—(NAC A 12-30-97)

NAC 534.160 "Nominal size" defined. (NRS 534.020, 534.110) "Nominal size" means the manufactured commercial designation of the diameter of a casing. An example would be casing with an outside diameter of 12 3/4 inches which may be nominally 12-inch casing by manufactured commercial designation.

[St. Engineer, Drilling Wells Reg. § 1.15, eff. 5-19-81]

NAC 534.165 "Observation well" defined. (NRS 534.020, 534.110) "Observation well" means a borehole in which a temporary casing has been set and which is used to observe, test and measure the elevation of the water table, the pressure variations within an aquifer and the movement of contaminants inside or outside a zone of saturation.

(Added to NAC by St. Engineer, eff. 12-30-97)

NAC 534.175 "Permit" defined. (NRS 534.020, 534.110) "Permit" means the written permission from the State Engineer to appropriate public waters for a beneficial use from a surface or underground source, at a specific point of diversion, under limited circumstances.

(Added to NAC by St. Engineer, eff. 1-9-90)

NAC 534.179 "Piezometer" defined. (NRS 534.020, 534.110) "Piezometer" means a well that is constructed to measure water pressure or soil moisture tensions at one or more discrete intervals.

(Added to NAC by St. Engineer, eff. 12-30-97)

NAC 534.182 "Pitless adapter" defined. (NRS 534.020, 534.110) "Pitless adapter" means a commercially manufactured device designed for attachment to openings through the casing of a water well that permits water service pipes to pass through the wall or an extension of a casing and prevents the entry of contaminants into the well or water supply.

(Added to NAC by St. Engineer, eff. 1-9-90; A 12-30-97)

NAC 534.183 "Plug" defined. (NRS 534.020, 534.110) "Plug" means the procedure in which a well or borehole is sealed after it is abandoned.

(Added to NAC by St. Engineer, eff. 1-9-90; A 12-30-97)

NAC 534.185 "Public land survey" defined. (NRS 534.020, 534.110) "Public land survey" means the description of the location of land using the survey system of the United States Government and includes the 40-acre subdivision within a quarter-quarter section, quarter section, section, township and range.

(Added to NAC by St. Engineer, eff. 1-9-90; A 12-30-97; R009-06, 6-1-2006)

NAC 534.188 "Reconditioning" defined. (NRS 534.020, 534.110) "Reconditioning" means the deepening, reaming, casing, recasing, perforating, reperforating, installing of liner pipe, packers and seals or any other significant change in the design or construction of a water well.

(Added to NAC by St. Engineer, eff. 1-9-90; A 12-30-97)

NAC 534.189 "Rehabilitation" defined. (NRS 534.020, 534.110) "Rehabilitation" means the process of revitalizing an existing well by various methods that do not cause a significant change in the design or construction of the well, including, without limitation, chemical treatment, brush cleaning, surging and high-pressure jetting.

(Added to NAC by St. Engineer by R044-14, eff. 10-24-2014)

NAC 534.190 "Seal" defined. (NRS 534.020, 534.110) "Seal" means the watertight seal established in a borehole or the annular space between the well casings or a well casing and the well bore to prevent the inflow or vertical movement of surface water or shallow groundwater, or to prevent the outflow or vertical movement of water under artesian pressures. The term includes a sanitary seal.

[St. Engineer, Drilling Wells Reg. § 1.19, eff. 5-19-81]—(NAC A 1-9-90; 12-30-97)

NAC 534.192 "Seismic shot hole" defined. (NRS 534.020, 534.110) "Seismic shot hole" means a borehole in which an explosion is detonated to assist studies of the geology of the earth.

(Added to NAC by St. Engineer, eff. 12-30-97)

NAC 534.194 "Sodium bentonite" defined. (NRS 534.020, 534.110) "Sodium bentonite" means a colloidal clay that:

1. Consists primarily of the weathered volcanic clay mineral montmorillonite where sodium is the predominant, exchangeable cation;
2. Has the ability to swell; and
3. Is easily hydrated when mixed with fresh water to form bentonite drilling fluids or bentonite grout.

(Added to NAC by St. Engineer, eff. 12-30-97; A by R039-12, 6-29-2012)

NAC 534.195 "Static water level" defined. (NRS 534.020, 534.110) "Static water level" means the stabilized level or elevation of the surface of the water in a well or borehole that is not being pumped and is not affected by the pumping of other wells or boreholes.

(Added to NAC by St. Engineer, eff. 1-9-90; A 12-30-97)

NAC 534.205 "Vapor extraction well" defined. (NRS 534.020, 534.110) "Vapor extraction well" means any well constructed to remove vapors that may contaminate the groundwater.

(Added to NAC by St. Engineer, eff. 12-30-97)

NAC 534.210 "Waste" defined. (NRS 534.020, 534.110) "Waste" has the meaning ascribed to it in NRS 534.0165.

[St. Engineer, Drilling Wells Reg. § 1.21, eff. 5-19-81]—(NAC A 1-9-90)

NAC 534.220 "Well" defined. (NRS 534.020, 534.110) "Well" means a penetration in the ground made for the purpose of measuring, testing, sampling or producing groundwater. The term includes a water well, monitoring well or exploratory well.

[St. Engineer, Drilling Wells Reg. § 1.22, eff. 5-19-81]—(NAC A 1-9-90; 12-30-97; R039-12, 6-29-2012)

NAC 534.235 "Well bore" defined. (NRS 534.020, 534.110) "Well bore" means a cylindrical hole made in the construction or drilling of a well.

(Added to NAC by St. Engineer, eff. 12-30-97)

NAC 534.240 "Well driller" defined. (NRS 534.020, 534.110) "Well driller" has the meaning ascribed to it in NRS 534.017.

[St. Engineer, Drilling Wells Reg. § 1.24, eff. 5-19-81]—(NAC A 1-9-90)

NAC 534.243 "Well Driller's Report" defined. (NRS 534.020, 534.110) "Well Driller's Report" means the log and record of work for a drilled or plugged well required to be submitted to the State Engineer pursuant to NRS 534.170 and NAC 534.340.

(Added to NAC by St. Engineer by R044-14, 10-24-2014)

NAC 534.245 "Well drilling" and "drilling a well" defined. (NRS 534.020, 534.110)

1. "Well drilling" and "drilling a well" have the meaning ascribed to them in NRS 534.0175.

2. As used in NRS 534.0175, the State Engineer interprets "well drilling" and "drilling a well" to include, without limitation, the reconditioning and rehabilitation of a well.

(Added to NAC by St. Engineer by R009-06, eff. 6-1-2006; A by R044-14, 10-24-2014)

WELL DRILLING LICENSES

NAC 534.280 Application for license. (NRS 534.020, 534.110, 534.140) An application for a well-drilling license must be submitted to the Division in person or by mail. The application:

1. Must be completed and signed by the applicant on a form provided by the Division;
2. Must be accompanied by the fee prescribed in NRS 534.140; and
3. Is valid for 1 year after the date of submission of the application.

[St. Engineer, Drilling Wells Reg. § 2.01, eff. 5-19-81]—(NAC A 1-9-90; 12-30-97; R009-06, 6-1-2006; R039-12, 6-29-2012; R044-14, 10-24-2014)

NAC 534.282 Qualifications of applicant; denial of application. (NRS 534.020, 534.110, 534.140)

1. An applicant for a well-drilling license must:

(a) Be at least 18 years of age;

(b) Be a citizen of the United States, or be lawfully entitled to remain and work in the United States;

(c) Submit an application and the fee pursuant to NAC 534.280;

(d) Demonstrate a good working knowledge of:

(1) Standard drilling practice;

(2) The regulations of the State Engineer and applicable laws relating to well drilling; and

(3) The method by which land is described by public land survey;

(e) Have at least 2 years of full-time experience under the supervision of a licensed well driller in good standing with the State Engineer as a water well driller that is determined to be appropriate by the State Engineer for the license for which the applicant applies;

(f) Have at least four professional references determined to be satisfactory and appropriate by the State Engineer for the license for which the applicant applies; and

(g) Pass an examination, consisting of the following sections:

(1) A written examination which includes:

(I) A written test consisting of questions on which the applicant must obtain a passing score of at least 80 percent; and

(II) A test of the applicant's ability to use a standard 7.5 minute topographic map from the United States Geological Survey to provide the public land survey description of the location of a well, which will be scored on a pass or fail basis; and

(2) An oral examination conducted by the Board.

2. The State Engineer will deny an applicant a license if the applicant:

(a) Fails to notify the Division at least 3 working days before the scheduled examination date that he or she cannot appear for the examination as instructed by a notice to appear before the State Engineer or the Board;

(b) Fails to pass all sections of the examination described in paragraph (g) of subsection 1 within the period for which the application is valid pursuant to NAC 534.280; or

(c) Fails to pass any section of the examination described in paragraph (g) of subsection 1 after two consecutive attempts.

(Added to NAC by St. Engineer, eff. 1-9-90; A 12-30-97; R009-06, 6-1-2006; R039-12, 6-29-2012; R044-14, 10-24-2014)

NAC 534.286 Oral examination of applicants. (NRS 534.020, 534.110) Except as otherwise provided in NAC 534.288, the Board shall conduct the oral examination section of the examination for each applicant for a well-drilling license. The oral examination section of the examination must be conducted to determine the sufficiency of the applicant's:

1. Knowledge of the provisions of this chapter and chapter 534 of NRS, including, without limitation, knowledge of the minimum standards established in this chapter for the construction, plugging, development or testing of wells;

2. Qualifications and experience;

3. Proficiency in the operating procedures and construction methods associated with the various types of drilling rigs used for well drilling; and

4. Ability to resolve problems that may arise during the construction, plugging, development or testing of a well.

(Added to NAC by St. Engineer, eff. 1-9-90; A 12-30-97; R009-06, 6-1-2006; R044-14, 10-24-2014)

NAC 534.288 Board not required to conduct oral examination of certain applicants. (NRS 534.020, 534.110) The Board is not required to conduct the oral examination section of the examination for an applicant for a well-drilling license who:

1. Receives a score of less than 80 percent on the written test portion of the written examination; or

2. Is unable to demonstrate his or her ability to locate a well by public land survey on a topographic map.

(Added to NAC by St. Engineer, eff. 1-9-90; A 12-30-97; R009-06, 6-1-2006; R044-14, 10-24-2014)

NAC 534.290 Revocation or denial of license. (NRS 534.020, 534.110, 534.150, 534.160)

1. The State Engineer may revoke or refuse to reissue a well-drilling license if the State Engineer determines, after an investigation and a disciplinary hearing, that the well driller has:

(a) Been found to be incompetent as a well driller by the State Engineer or the Board;

(b) Supplied false information to an owner of a well or a holder of a permit or his or her agent; or

(c) Failed to report information concerning improper construction or improper plugging of a well pursuant to NAC 534.355.

2. The State Engineer will avail himself or herself of the services of the Board pursuant to NRS 534.150 if the State Engineer determines that to do so is appropriate under the circumstances.

[St. Engineer, Drilling Wells Reg. §§ 8.01 & 8.02, eff. 5-19-81]—(NAC A 1-9-90; 12-30-97; R009-06, 6-1-2006)

NAC 534.292 Notice to renew license; notification by well driller of change in mailing address. (NRS 534.020, 534.110, 534.140)

1. The Division will send by mail to each licensed well driller a notice to renew his or her license approximately 30 days before the expiration of the license. Failure to receive the notice does not relieve a well driller of the well driller's obligation to file the appropriate forms and pay the fee for renewal in a timely manner.

2. A well driller shall notify the Division of any change in his or her mailing address within 30 days after the change.

(Added to NAC by St. Engineer, eff. 1-9-90; A by R039-12, 6-29-2012)

NAC 534.2923 Renewal of license: Application for renewal. (NRS 534.020, 534.110, 534.140) A well driller may renew his or her well-drilling license by submitting a renewal application to the Division in person or by mail so that the Division receives the application not later than June 15. The renewal application must:

1. Be completed and signed by the well driller on a form provided by the Division;
2. Be accompanied by the renewal fee prescribed in NRS 534.140; and
3. Except as otherwise provided in subsection 4 of NAC 534.2927, include documentation satisfactory to the Division that the applicant has completed eight credit units of continuing education within the previous year beginning July 1 and ending June 30. At least once within two consecutive renewal periods, the units of continuing education completed by an applicant must include the successful completion of the following courses offered by the Division:

(a) "Nevada Well Drilling Regulations and Statutes"; and

(b) "Well Drilling Forms: How to Properly Complete a Well Driller's Report, Notice of Intent Card, Affidavit of Intent to Abandon and Waivers."

(Added to NAC by St. Engineer by R009-06, eff. 6-1-2006; A by R009-06, 6-1-2006, eff. 7-1-2008; R039-12, 6-29-2012; R044-14, 10-24-2014)

NAC 534.2925 Renewal of license: Processing of and action on application. (NRS 534.020, 534.110, 534.140, 534.160)

1. The Division shall process each application submitted for renewal of a well-drilling license pursuant to NAC 534.2923 in the order in which the applications are received by the Division. If the State Engineer determines that an application is complete and the applicant is qualified, the Division shall renew the license for the period ending on June 30 of the year after approval of the renewal.

2. The Division shall not renew a license if the State Engineer determines, upon investigation and after a hearing held upon at least 15 days' notice sent by registered or certified mail to the licensed well driller, that the well driller:

(a) Has not submitted all required notices of intent to drill to the Division as required by NAC 534.320;

(b) Has not furnished a copy of the Well Driller's Report for every well drilled to the State Engineer pursuant to NRS 534.170 and NAC 534.340;

(c) Has not complied with all orders requiring the repair or plugging of improperly constructed wells;

(d) Is not otherwise in compliance with this chapter or chapter 534 of NRS; or

(e) Has accumulated 100 demerit points or more against his or her license.

3. If the State Engineer determines, after consultation with the Board, that a well driller has an unacceptable history of noncompliance with this chapter and chapter 534 of NRS, the

Division may deny renewal, refuse renewal for a specified time, or renew the license of the well driller with conditions that the State Engineer considers appropriate. In making this determination, the State Engineer will consider:

(a) The actions of the well driller within the 5 years immediately preceding the date on which the renewal application is received by the Division with regard to his or her well-drilling license or other permits issued by the State Engineer pursuant to this chapter or chapter 534 of NRS.

(b) The failure to submit or the failure to submit in a timely manner by the well driller any corrections to a Well Driller's Report required pursuant to NAC 534.345.

(Added to NAC by St. Engineer by R009-06, eff. 6-1-2006; A by R044-14, 10-24-2014)

NAC 534.2927 Continuing education of well drillers. (NRS 534.020, 534.110, 534.140)

1. A credit unit of continuing education is earned for each hour the holder of a well-drilling license attends a workshop, seminar or course or participates in any other type of educational activity related to well drilling or related subjects approved by the Division. Such educational activities may include, without limitation, the completion of college courses or Internet courses, compiling and instructing courses approved by the Division, active participation on the board of a professional organization and authoring appropriate publications.

2. Documentation of completion of continuing education which is satisfactory to the Division includes, without limitation:

(a) A log, on a form provided by the Division, indicating the type of educational activity claimed, the sponsoring organization, the duration of the course or activity, the name of the instructor and the number of credit units; and

(b) Documents providing evidence of attendance at or participation in an educational activity, including, without limitation, a certificate of completion.

3. Except as otherwise provided in subsection 4, the Division shall deny the renewal of a license if, at the time of renewal, the well driller is unable to provide documentation of completion of the number of credit units of continuing education required by NAC 534.2923.

4. The Division may exempt a well driller from all or part of the number of credit units of continuing education required by NAC 534.2923 if the well driller:

(a) Served on active duty in the Armed Forces of the United States for 120 consecutive days or more during the licensing period immediately preceding the application for renewal;

(b) Was prevented from earning the number of credit units of continuing education required by NAC 534.2923 because of a physical disability, serious illness or other extenuating circumstances; or

(c) Is within the first renewal period after the well driller has applied or reapplied for his or her license.

5. A well driller who is not a resident of this State is subject to the same requirements of continuing education as a well driller who is a resident of this State.

6. The Division shall review each educational activity submitted to the Division to satisfy the continuing education requirements set forth in NAC 534.2923 to determine the number of credit units of continuing education, if any, to assign to the educational activity.

7. The Division is not obligated to provide credit units of continuing education for a course that was completed before the Division has approved the course.

(Added to NAC by St. Engineer by R009-06, eff. 6-1-2006; A by R039-12, 6-29-2012; R044-14, 10-24-2014)

NAC 534.293 Requirements to reinstate license if prior license has expired or been suspended or revoked. (NRS 534.020, 534.110, 534.140) To reinstate a license, a well driller whose license has been:

1. Expired for 1 year or less must:

(a) File a new application with the fee required by NRS 534.140;

(b) Pass the examination required by NAC 534.282 or petition the Division for and receive from the Division a waiver of the requirement to pass the examination; and

(c) Reduce the number of demerit points the well driller has accumulated against his or her license to zero.

2. Expired for more than 1 year or suspended or revoked must:

(a) File a new application with the fee required by NRS 534.140;

(b) Pass the examination required by NAC 534.282; and

(c) Reduce the number of demerit points the well driller has accumulated against his or her license to zero.

(Added to NAC by St. Engineer, eff. 1-9-90; A 12-30-97; R009-06, 6-1-2006; R039-12, 6-29-2012; R044-14, 10-24-2014)

NAC 534.294 Scope of authority under license; issuance of restricted licenses; request to modify scope of restricted license. (NRS 534.020, 534.110)

1. A well-drilling license authorizes the licensee to drill or plug the following types of wells:

(a) Water wells;

(b) Monitoring wells; and

(c) Geothermal wells.

2. The State Engineer may issue restricted well-drilling licenses that limit a well driller to a class of work or type of drilling rig, or both, for which the Board has determined the driller is qualified. The following restricted well-drilling licenses may be issued:

(a) A monitoring well-drilling license;

(b) A geothermal well-drilling license; and

(c) Any other class of well-drilling license determined to be appropriate by the Board and the State Engineer.

3. If a well driller wishes to modify the scope of his or her restricted well-drilling license, the well driller may submit a written request to the Division to appear before the Board for further examination.

(Added to NAC by St. Engineer, eff. 1-9-90; A 12-30-97; R044-14, 10-24-2014)

DUTIES OF WELL DRILLERS

NAC 534.300 Designated basins; replacement wells; waivers. (NRS 534.020, 534.050, 534.110, 534.140)

1. Except as otherwise provided in subsection 6 and NAC 534.315, a well driller shall not drill a water well within a groundwater basin designated by the State Engineer until the well driller determines that a permit to appropriate the groundwater has been issued pursuant to NRS 534.050.

2. Except as otherwise provided in subsections 3, 5 and 6, a water well may be drilled to replace an existing well if a valid permit, waiver or certificate of water right exists for the well to be replaced.

3. If continued use will not be made of the existing well, the existing well must be plugged as required by NAC 534.420 at the time the replacement well is drilled. If continued use will be made of the existing well or the well owner does not want to plug the existing well, a permit must be issued for the replacement well before any drilling is commenced.

4. The replacement well must not be drilled more than 300 feet from the location of the existing point of diversion described in the permit, waiver or certificate and may not be moved outside of the 40-acre subdivision described in the permit, waiver or certificate. Drilling must not be suspended without completing the replacement well or plugging the original well unless approved by the Division.

5. If water service is available from an entity, including, without limitation, a public utility, a water district or a municipality presently engaged in furnishing water to the inhabitants of an area, a well for temporary use for which a revocable permit was granted pursuant to NRS 534.120 may not be drilled or replaced unless, pursuant to NAC 534.450, a waiver from the provisions of this section is first obtained from the Division.

6. In basins designated by the State Engineer, a waiver is required for any well:

(a) That does not comply with the requirements for construction prescribed in this chapter;

(b) The water appropriated from which will be used in constructing a highway or exploring for oil, gas, minerals or geothermal resources;

(c) That may be used as a monitoring well;

(d) That may be used as an exploratory well; or

(e) That is located in a shallow groundwater system for removing water for the purpose of alleviating potential hazards to persons and property resulting from the rise of groundwater caused by secondary recharge.

[St. Engineer, Drilling Wells Reg. §§ 10.01-10.03, 10.05 & 10.06, eff. 5-19-81]—(NAC A 1-9-90; 12-30-97; R009-06, 6-1-2006; R039-12, 6-29-2012; R044-14, 10-24-2014)

NAC 534.310 Nondesignated basins. (NRS 534.020, 534.050, 534.110, 534.140)

1. Except as otherwise provided in subsection 4 and NAC 534.315:

(a) In basins which have not been designated by the State Engineer, a person who drills a well before receiving a permit to appropriate water does so at the risk that a permit to appropriate water cannot be obtained; and

(b) A person shall not use water from a well until a permit or waiver has been obtained pursuant to NRS 534.050.

2. In basins which have not been designated by the State Engineer, the well driller may proceed to drill a well whether or not the owner of the property has a permit to appropriate water.

3. A replacement well must not be drilled more than 300 feet from the location of the existing point of diversion described in the permit, waiver or certificate and may not be moved outside of the 40-acre subdivision described in the permit, waiver or certificate. Drilling must not be suspended without completing the replacement well and plugging the original well unless approved by the Division.

4. In basins which have not been designated by the State Engineer, a waiver is required before any diversion of water may be made for any well:

(a) That does not comply with the requirements for construction prescribed in this chapter;

(b) The water appropriated from which will be used in constructing a highway or exploring for oil, gas, minerals or geothermal resources;

(c) That may be used as a monitoring well;

(d) That may be used as an exploratory well; or

(e) That is located in a shallow groundwater system for removing water for the purpose of alleviating potential hazards to persons and property resulting from the rise of groundwater caused by secondary recharge.

[St. Engineer, Drilling Wells Reg. Part 11, eff. 5-19-81]—(NAC A 12-30-97; R009-06, 6-1-2006; R039-12, 6-29-2012; R044-14, 10-24-2014)

NAC 534.315 Wells for domestic use. (NRS 534.020, 534.110, 534.140, 534.180)

1. Except as otherwise provided in subsection 8, permits to appropriate groundwater are not required for the drilling of wells for domestic use.

2. A well driller shall take into account the normal annual fluctuations in the demand for water of an area and, if the well is in a developed area, some annual drop in static water level.

3. Water may not be diverted from more than one well for domestic use in one single-family residence.

4. A well drilled for domestic use only must have a casing size not larger than 8.625 inches in diameter.

5. Except as otherwise provided in subsection 7, if a well drilled for domestic use cannot be reconditioned, a replacement well may be drilled if the original well is plugged as required by NAC 534.420 before the equipment used for well drilling is moved from the drilling site.

6. Except as otherwise provided in subsection 7, a well may be drilled for domestic use if not more than 2 acre-feet of water per year is diverted from the well for use by a single-family household, including a residence with a lawn, garden and domestic animals.

7. If water service is available from an entity, including, without limitation, a public utility, a water district or a municipality presently engaged in furnishing water to the inhabitants of the area, a well for domestic use may not be drilled, including, without limitation, deepened or reconditioned, or replaced unless a waiver from the provisions of this section is first obtained from the Division.

8. A permit must be obtained from the Division if:

(a) More than 2 acre-feet of water per year is diverted from a water well for domestic use;

(b) Water is used for purposes other than domestic use; or

(c) The single-family dwelling is furnished water by an entity that is authorized to furnish water to the inhabitants of the area where the dwelling is located.

[St. Engineer, Drilling Wells Reg. § 10.04 + Part 12, eff. 5-19-81]—(NAC A 1-9-90; 12-30-97; R009-06, 6-1-2006; R044-14, 10-24-2014)

NAC 534.320 Notice of intent to drill: Submission; approval by Division required; contents; fees; correction; forms. (NRS 534.020, 534.110, 534.140)

1. Except as otherwise provided in subsection 2, a well driller shall not set up a well rig or commence drilling or plugging a well until the well driller has submitted to the Division a notice of intent to drill and the Division has approved the notice of intent to drill.

2. The notice of intent to drill must be submitted for work on an exploratory, water or monitoring well. A well driller shall notify the Division before drilling or plugging a geothermal well by submitting a notice of intent to drill if a permit to appropriate water is required pursuant to NRS 534.050. Submission of a notice of intent to drill is not required for the rehabilitation of an existing well.

3. The notice of intent to drill submitted pursuant to subsection 1 must give the name of the person for whom the work is being performed, the location of the well by public land survey, the lot number, block number and county assessor's parcel number, the purpose of the well, the date on which the work is to be commenced, the type of work to be done and the diameter of casing to be installed. The notice must be accompanied by the filing fee required by NRS 533.435 and must include:

(a) The signature of the contractor or the well driller responsible for the work;

(b) The license number of the well driller responsible for the work; and

(c) If applicable, the governmental agency identification number mandating the installation of the well, such as the number of a water right permit, waiver, case file or facility identification.

4. The notice of intent to drill submitted pursuant to subsection 1 must be received by the Division at least 3 working days before the well rig is to be set up. If a permit or waiver is required for the drilling operation, the number of the permit or waiver issued by the Division must be indicated on the notice of intent to drill in addition to the information required by subsection 3.

5. In addition to the requirements of subsections 3 and 4, the notice of intent to drill must include global positioning system coordinates which:

(a) Are either identified by latitude and longitude using decimal degrees or are identified using coordinates of the Universal Transverse Mercator system; and

(b) Specify for each coordinate whether the North American Datum of 1927, North American Datum of 1983 or the World Geodetic System 1984 was used.

6. If a well driller omits any of the information required by this section from the notice of intent to drill submitted to the Division pursuant to subsection 1, the Division may return the notice of intent to drill to the well driller for correction. A well driller must not set up the well rig or commence drilling or plugging the well until the well driller receives approval of the corrected notice of intent to drill from the Division.

7. A well driller may submit the notice of intent to drill required pursuant to subsection 1 to the Division in an electronic format if the Division approves this manner of submission for the well driller before the well driller submits the notice of intent to drill.

8. The forms evidencing notice of intent to drill will be furnished by the Division to the well driller on request and will be stamped and self-addressed.

9. If a well is to be drilled or plugged in a township that is located north of the Mount Diablo baseline, the notice of intent to drill must be submitted to the office of the Division located in Carson City. If a well is to be drilled or plugged in a township which is located south of the Mount Diablo baseline, the notice of intent to drill must be submitted to the office of the Division located in Las Vegas.

[St. Engineer, Drilling Wells Reg. Part 4, eff. 5-19-81]—(NAC A 1-9-90; 12-30-97; R009-06, 6-1-2006; R039-12, 6-29-2012; R044-14, 10-24-2014)

NAC 534.325 Notice of intent to drill: Lapse; new notice. (NRS 534.020, 534.110, 534.140)

1. If the drilling or plugging of a well described on a notice of intent to drill is not commenced within 60 days after the Division approves the notice of intent to drill, the notice of intent to drill lapses and a new notice of intent to drill must be submitted and approved by the Division before such activity may proceed. The new notice of intent to drill must include the number of the lapsed notice of intent to drill.

2. The well driller may set up the drill rig and commence drilling or plugging a well immediately after the Division receives and approves the new notice of intent to drill.

3. The well driller shall indicate on the Well Driller's Report for the well the number of the notice of intent to drill that the well driller last submitted for that well.

(Added to NAC by St. Engineer, eff. 1-9-90; A 12-30-97; R009-06, 6-1-2006; R044-14, 10-24-2014)

NAC 534.330 Responsibilities of licensed well driller at drilling site. (NRS 534.020, 534.110, 534.140) A well driller licensed by the State Engineer:

1. Must be present at the well-drilling site when the drill rig is in operation and when any activity involving the construction, reconditioning or plugging of the well is conducted. If the licensed well driller leaves the drilling site, the drilling operation must be shut down until that licensed well driller or another well driller licensed pursuant to this chapter returns to the site. If the Division determines that drilling operations occurred during any period in which a licensed well driller was not present at the well-drilling site, the Division may order the drilling operation to cease and conduct an investigation. The drilling operation may not recommence until the Division approves the drilling operation.

2. Shall ensure that the drilling of the well complies with:

(a) The provisions of this chapter;

(b) The terms and conditions of any permit, waiver or order issued by the State Engineer; and

(c) The requirements of all other federal, state and local agencies which have jurisdiction over the land on which the well is to be drilled.

3. Shall carry the well driller's license card when he or she is present at the drilling site and produce the card when requested to do so by a representative of the Division.

4. Shall have in his or her possession at the well-drilling site the documentation of the approval by the Division of the notice of intent to drill submitted by the well driller for the well and shall produce that documentation upon request by a representative of the Division.

[St. Engineer, Drilling Wells Reg. § 2.02, eff. 5-19-81]—(NAC A 1-9-90; 12-30-97; R009-06, 6-1-2006; R044-14, 10-24-2014)

NAC 534.335 Responsibility to obtain written authorization from owner of land to access project if certain waiver granted. (NRS 534.020, 534.110) A waiver granted by the State Engineer pursuant to NAC 534.440 to 534.444, inclusive, and 534.448 does not extend to the well driller the right of ingress or egress across and upon public, private or corporate lands. To obtain such a right, the person who requested the waiver must obtain written authorization from the owner of the land to access the project area.

(Added to NAC by St. Engineer by R044-14, eff. 10-24-2014)

NAC 534.340 Well Driller's Report: Form; contents. (NRS 534.020, 534.110, 534.140, 534.170)

1. A Well Driller's Report must be submitted to the State Engineer within 30 days after the completion of the drilling or plugging of a well by the well driller pursuant to NRS 534.170 and must be typewritten or legibly handwritten in black ink on a form provided by the Division. Submission of a Well Driller's Report is not required for the rehabilitation of an existing well.

2. In addition to the information required pursuant to NRS 534.170, the following information must be contained in the Well Driller's Report:

(a) The complete name and address of the person for whom the work is being performed.

(b) The location of the well, including:

(1) A description of its location by public land survey and county assessor's parcel number.

(2) Global positioning system coordinates which:

(I) Are either identified by latitude and longitude using decimal degrees or are identified using coordinates of the Universal Transverse Mercator system; and

(II) Specify for each coordinate whether the North American Datum of 1927, North American Datum of 1983 or the World Geodetic System 1984 was used.

(3) In a Well Driller's Report for a well drilled for domestic use, the address of the house to be served by the well, the county assessor's parcel number and, if available, the lot and block description and the name of the subdivision.

(c) Any pumping test or development data.

(d) An accurate identification of the water-bearing formations.

(e) The static water level, measured from the land surface.

(f) Any applicable water rights permit or waiver number.

(g) The temperature of the water in the well measured in degrees Fahrenheit.

3. An accurate description of the perforations in the casing must be set forth in the section of the Well Driller's Report that contains a record of the well casing.

4. If the well is tested by:

(a) Pumping pursuant to subsection 3 of NRS 534.170, the information must be reported on the Well Driller's Report in gallons per minute of flow.

(b) Flow, the length of time it takes to fill a container of known capacity, if the flow is not too large to be accurately measured in that manner, must be reported on the Well Driller's Report.

➥ The duration of such testing must not exceed 72 hours, unless otherwise approved by the Division.

[St. Engineer, Drilling Wells Reg. Part 7, eff. 5-19-81]—(NAC A 1-9-90; 12-30-97; R009-06, 6-1-2006; R039-12, 6-29-2012; R044-14, 10-24-2014)

NAC 534.345 Well Driller's Report: Completion; execution; submission; correction. (NRS 534.020, 534.110, 534.140, 534.170)

1. All work performed by the well driller during the drilling operation must be accurately described in the Well Driller's Report submitted by the well driller pursuant to NRS 534.170 and NAC 534.340.

2. The completed Well Driller's Report must be signed by:

(a) The licensed well driller who is present at the well-drilling site as required pursuant to NAC 534.330; or

(b) The drilling contractor responsible for the work.

3. A well driller may submit the Well Driller's Report in an electronic format if the Division approves this manner of submission for the well driller before the well driller submits the Well Driller's Report.

4. If any of the information required to be included by this chapter or chapter 534 of NRS is omitted from a Well Driller's Report, the Division shall return the Well Driller's Report to the well driller for correction. Any corrections to the Well Driller's Report must be made and submitted to the State Engineer within 30 days after the date on which the well driller receives the returned Well Driller's Report from the Division. If corrections are made to the returned Well

Driller's Report and submitted to the State Engineer 31 days or more after the date on which the Division returned the Well Driller's Report to the well driller for correction, the Well Driller's Report will be accepted by the State Engineer but the late submittal of the Well Driller's Report shall be deemed to be a failure to file the Well Driller's Report and the Division shall assess demerit points against the license of the well driller pursuant to NAC 534.500.

(Added to NAC by St. Engineer, eff. 1-9-90; A 12-30-97; R009-06, 6-1-2006; R044-14, 10-24-2014)

NAC 534.350 Identification of well rig. (NRS 534.020, 534.110, 534.140) The name and address of the contractor drilling the well must be conspicuously displayed in legible letters at least 3 inches high on the drill rig operated or owned by that contractor.

[St. Engineer, Drilling Wells Reg. Part 9, eff. 5-19-81]—(NAC A 1-9-90; 12-30-97; R044-14, 10-24-2014)

NAC 534.355 Reporting of improper construction or plugging of well. (NRS 534.020, 534.110, 534.140) A licensed well driller who becomes aware of specific information relating to improper construction or improper plugging of a well shall report that information to the Division as soon as practicable.

(Added to NAC by St. Engineer, eff. 12-30-97; A by R009-06, 6-1-2006)

DRILLING, CONSTRUCTION AND PLUGGING OF WELLS AND BOREHOLES

NAC 534.358 Construction of well: Compliance with chapter 445A of NAC in certain circumstances. (NRS 534.020, 534.110) If a well is regulated by the Bureau of Safe Drinking Water of the Division of Environmental Protection of the State Department of Conservation and Natural Resources, the well must be constructed in accordance with chapter 445A of NAC.

(Added to NAC by St. Engineer by R039-12, eff. 6-29-2012)

NAC 534.360 Construction of well: Casing. (NRS 534.020, 534.060, 534.110, 534.140)

1. Except as otherwise provided in subsection 2, all wells must be cased to the bottom of the well bore and constructed to prevent contamination or waste of the groundwater.

2. If no additional water is developed in the bottom portion of a well bore, neat cement, cement grout or concrete grout must be placed by tremie pipe in an upward direction from the bottom of the well bore to the bottom of the casing.

3. The casing must:

(a) Except as otherwise provided in this paragraph and NAC 534.362, be of new steel or clean and sanitary used steel. Materials other than steel may be used if the design of the well or the subsurface conditions prevent the use of steel casing and a professional engineer who holds a license issued pursuant to chapter 625 of NRS has approved the casing materials.

(b) Be free of pits and breaks.

4. The thickness of the wall of the casing must:

(a) For depths of 300 feet or less, conform to the following minimum specifications, allowing for mill tolerance:

(1) If the conductor casing is 50 feet or less in depth, the thickness of the wall must be:

(I) At least 0.141 or 9/64 of an inch if the wall is made of a material other than galvanized steel pipe that has been corrugated; or

(II) At least 0.109 or 7/64 of an inch if the wall is made of galvanized steel pipe that has been corrugated.

(2) If the depth of the conductor casing exceeds 50 feet, and for all production or intermediate casing, the wall must be sufficiently thick to conform to the casing sizes listed in sub-subparagraphs (I) to (IV), inclusive:

(I) If the casing is smaller than 10 inches nominal size, the wall must be at least 0.188 or 3/16 of an inch thick.

(II) For 10-, 12-, 14- and 16-inch nominal size casing, the wall must be at least 0.250 or 1/4 of an inch thick.

(III) For 18- and 20-inch nominal size casing, the wall must be at least 0.312 or 5/16 of an inch thick.

(IV) For casing larger than 20 inches nominal size, the wall must be at least 0.375 or 3/8 of an inch thick.

(b) For depths of more than 300 feet, be increased in accordance with the *American Water Works Association Standard A100-06*, which is hereby adopted by reference. A copy of the standard may be obtained by mail from the American Water Works Association, 6666 West Quincy Avenue, Denver, Colorado 80235-3098, by telephone at (800) 926-7337 or at the Internet address **http://www.awwa.org**, at a cost of $88.

5. The top of the casing on all wells must be at least 18 inches above the surface of the ground or the finished grade.

6. All production casing joints must be threaded and coupled or welded and be watertight. If the casing joints are welded, each joint must be welded completely. Spot welds of casing joints are prohibited.

7. The well driller shall ensure that the integrity of any casing to be used in the construction of the well has not been impaired by storage, shipping, handling, perforating or exposure to ultraviolet light.

[St. Engineer, Drilling Wells Reg. § 3.01, eff. 5-19-81]—(NAC A 1-9-90; 12-30-97; R009-06, 6-1-2006; R039-12, 6-29-2012; R044-14, 10-24-2014)

NAC 534.362 Construction of well: Thermoplastic casing. (NRS 534.020, 534.060, 534.110, 534.140)

1. New thermoplastic water well casing made of polyvinyl chloride may be used as casing in a well if the casing:

(a) Is clearly marked as well casing; and

(b) Complies with the standards adopted by ASTM International designated as ASTM F480-12, or the current F480 designation at the time of installation, which are hereby incorporated by reference. A copy of the standards may be obtained by mail from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, Pennsylvania 19428-2959, by telephone at (610) 832-9585 or at the Internet address **http://www.astm.org**, at a cost of $57.

2. If polyvinyl chloride well casing is used:

(a) The differential pressures that may occur during the installation of casing, the development of the well and the operation of the well must be considered by the well driller and the person responsible for designing the well.

(b) The wall thickness must:

(1) For nominal diameters that are 6 inches or less, conform to a rating of schedule 40 or heavier. For example, a nominal pipe that is 6 inches in diameter and has a rating of schedule 40 must have a wall thickness of at least 0.280 inch. The ASTM standard dimension ratio that would exceed this standard is an ASTM standard dimension ratio of 21 or heavier. An ASTM standard dimension ratio of 26 would not satisfy the requirements of this subparagraph for nominal diameters that are 6 inches or less.

(2) For nominal diameters that are more than 6 inches, conform to the ASTM standard dimension ratio of 21 or heavier. The standard dimension ratio is equal to the outside diameter divided by the wall thickness. For example, a nominal pipe that is 8 inches in diameter and has an ASTM standard dimension ratio of 21 must have a wall thickness of at least 0.410 inch. A rating of schedule 40 would not satisfy the requirements of this subparagraph for a nominal pipe that is 8 inches in diameter and has a wall thickness of 0.322 inch.

(c) The joint connections must be:

(1) Flush-threaded;
(2) Threaded and coupled; or
(3) Joined with nonmetallic couplings that are sealed with elastomeric sealing gaskets and which consist of flexible thermoplastic splines that are inserted into precisely machined grooves in the casing.

➥ The joint connections must not be glued or joined by restraining devices that clamp into or otherwise damage the surface of the casing. If the joint connections are flush-threaded or threaded and coupled, the well driller shall ensure that the connections are not overtightened.

3. If polyvinyl chloride well casing is used in a water well or monitoring well, the well driller shall set a protective steel casing which complies with the provisions of NAC 534.360 and extends not less than 5 feet inside the sanitary seal and not less than 18 inches above the finished grade. The top of the protective casing must be fitted with a locking cap or a standard sanitary well cap.

(Added to NAC by St. Engineer, eff. 12-30-97; A by R009-06, 6-1-2006; R039-12, 6-29-2012)

NAC 534.370 Construction of well: Prevention of contamination; use of additives; securing against unauthorized entry; suspension of drilling. (NRS 534.020, 534.110, 534.140)

1. The well driller shall take the precautions necessary to:

(a) Seal off any known zones of poor quality water which may affect the zones of good quality water in the well.

(b) Prevent contamination or waste of groundwater.

2. Any additive used in drilling a well, including, without limitation, lost circulation materials, must be capable of being broken down and removed from the borehole and must not contaminate or induce contamination of the groundwater or be an organic substance unless certified as appropriate for use in a potable aquifer under *Drinking Water Treatment Chemicals - Health Effects*, NSF/ANSI Standard 60-2014, which is hereby adopted by reference. A copy of the standard may be obtained by mail from NSF International/Techstreet, 3916 Ranchero Drive, Ann Arbor, Michigan 48108, by telephone at (800) 699-9277 or at the Internet address **http://www.techstreet.com/nsf/products**, at a cost of $325. As used in this subsection:

(a) "Lost circulation materials" means substances added to drilling fluids when drilling fluids are being lost to the formations downhole.

(b) "Organic substance" includes, without limitation, paper products, wood products, brans, hulls, grains, starches, hays, straws and proteins.

3. If it becomes necessary for the driller to discontinue the drilling operation before completion of the well, the well must be covered securely to prevent a contaminant from entering the casing or borehole and rendered secure against entry by children, domestic animals and wildlife.

4. After drilling is completed, all openings must be closed off to prevent contamination of the well. A sanitary well cap or welded plate must be welded to the well.

5. If drilling is suspended for any reason, the Division must be notified within 24 hours after drilling is suspended or before the drilling equipment is moved from the drilling site, whichever occurs first. The suspension of drilling without completing or plugging the well must be approved by the Division.

[St. Engineer, Drilling Wells Reg. §§ 3.14 & 3.15, eff. 5-19-81]—(NAC A 1-9-90; 12-30-97; R044-14, 10-24-2014)

NAC 534.375 Measures required before constructing new water well and if contaminant or contaminated water is encountered during construction of water well. (NRS 534.020, 534.110, 534.140)

1. Before commencing construction of a new water well, a licensed well driller shall investigate the drilling conditions, the geology of potential aquifers and overlying materials in

the area in which the new water well is located by examining Well Driller's Reports in the database maintained on the Division's website for wells located in the area in which the new water well will be located.

2. If a contaminant or contaminated water is encountered during the construction of a water well, the strata which contain the contaminant or contaminated water must be cased or sealed in such a manner that the contaminant or contaminated water does not commingle with or impair other strata or the water contained in other strata. The well driller shall, by grouting or by using special seals or packers, prevent the movement of the contaminant or contaminated water in the well bore.

(Added to NAC by St. Engineer, eff. 12-30-97; A by R044-14, 10-24-2014)

NAC 534.378 Construction of well: Measures required if artesian condition is encountered. (NRS 534.020, 534.060, 534.110, 534.140)

1. If an artesian condition is encountered in a well, the well driller shall, in addition to complying with the provisions of subsections 2 and 3 of NRS 534.060, ensure that unperforated casing extends through the confining strata above the artesian zone. The annular space between the casing and the walls of the well bore must be sealed by placing neat cement, cement grout or bentonite chips by tremie pipe in an upward direction from the top of the artesian zone to the level necessary to prevent the leakage of artesian water above or below the surface.

2. Any flow of artesian water must be stopped completely in the manner set forth in subsection 3 of NRS 534.060 before the drill rig is removed from the drill site.

(Added to NAC by St. Engineer, eff. 12-30-97; A by R009-06, 6-1-2006; R039-12, 6-29-2012)

NAC 534.380 Construction of well: Seals. (NRS 534.020, 534.060, 534.110, 534.140)

1. Except as otherwise provided in subsection 2, before the drill rig is removed from the drill site of a well, the annular space between the well bore and the casing must be sealed to a minimum depth of 50 feet below ground level by:

(a) Placing neat cement, cement grout, concrete grout or bentonite chips from the sealing depth to 20 feet from the surface; and

(b) Placing neat cement, cement grout or concrete grout from 20 feet below the surface to the surface.

➥ If sodium bentonite chips are placed in the annular space, the chips must be placed in such a manner that a bridge does not occur. If bentonite chips are poured in standing water, the bentonite chips must be screened to eliminate the fines.

2. Before the drill rig is removed from the drill site of a well, the annular space between the well bore and the casing must be sealed to a depth of greater than 50 feet below ground level if sealing to such a depth is required by subsection 1 of NAC 534.370, NAC 534.375, subsection 1 of NAC 534.378 or paragraph (b) of subsection 1 of NAC 534.390. If the well is regulated by the Bureau of Safe Drinking Water of the Division of Environmental Protection of the State Department of Conservation and Natural Resources, the annular space must be sealed in accordance with NAC 445A.66905.

3. The casing must be centered as nearly as practicable in the well bore to allow the sanitary seal to surround the casing.

4. If a temporary conductor casing is used, it must be withdrawn during the placement of the grout.

5. If a pitless adapter is used:

(a) The sanitary seal must begin not more than 5 feet below ground level;

(b) The sanitary seal must extend at least 50 feet below the bottom elevation of the pitless adapter; and

(c) The portion of the casing above the sanitary seal must be backfilled to ground level with uncontaminated soil which is compacted.

6. A pipe used to feed gravel through the cement seal or to provide access to the interior of the well must be fitted with a watertight cap.

7. A licensed well driller must place the seal or directly supervise the placement of the seal.

8. The seal must be placed:

(a) In the annular space within 3 days after the casing is set and before the drill rig is removed from the drill site.

(b) In one continuous mass from the minimum depth of 50 feet below ground level to the surface.

(c) By tremie pipe in an upward direction to displace the fluid to the surface of the ground, if any fluid is standing in the well bore above the sealing depth.

9. The diameter of the well bore must be at least 4 inches larger than the largest diameter of the outside of the outermost casing to be used, including any joints or collars. If a fill pipe for gravel is installed, the diameter of the well bore must be 4 inches larger than the largest diameter of the casing plus the largest diameter of the fill pipe for gravel. A fill pipe for gravel or any other pipe to provide access to the interior of the well must be completely surrounded by the seal. A conductor casing may be used to convey the gravel pack. If a conductor casing is used:

(a) The diameter of the well bore must be at least 4 inches larger than the largest diameter of the conductor casing; and

(b) The annular space between the conductor casing and the well bore must be sealed.

10. A watertight seal must be installed at the surface level between the conductor casing and the production casing to prevent any contaminants from entering the gravel pack conductor area. A welded plate or a seal consisting of neat cement, cement grout or concrete grout from a minimum depth of 10 feet below ground level to the surface must be used. If a welded plate is used, the entire length of the plate must be welded to the conductor casing and production casing.

[St. Engineer, Drilling Wells Reg. §§ 3.02-3.13 & 3.16, eff. 5-19-81]—(NAC A 1-9-90; 12-30-97; R009-06, 6-1-2006; R039-12, 6-29-2012; R044-14, 10-24-2014)

NAC 534.390 Construction of well: Location near river, lake, perennial stream, unlined reservoir or unlined canal; compliance with permit or waiver. (NRS 534.020, 534.060, 534.110, 534.140)

1. If a well, other than a monitoring well, is drilled within 1/4 mile of a river, lake, perennial stream, unlined reservoir or unlined canal:

(a) Perforations in the production casing are prohibited from ground level to a depth of 100 feet.

(b) The well must be sealed to a depth of 100 feet.

(c) A permanent conductor casing may be used to convey the gravel pack to the 100-foot level.

2. If a well is being drilled pursuant to a permit or waiver, the well driller is responsible for satisfying the terms and conditions of the permit or waiver concerning the construction of the well.

[St. Engineer, Drilling Wells Reg. Part 5, eff. 5-19-81]—(NAC A 1-9-90; 12-30-97)

NAC 534.420 Plugging of well: General requirements. (NRS 534.020, 534.110)

1. Except as otherwise provided in NAC 534.422, wells other than monitoring wells must be plugged in the manner prescribed in this section by a well driller licensed by the State Engineer.

2. A well driller shall:

(a) Ensure that in accordance with NAC 534.320 a notice of intent to drill is received by the Division not less than 3 working days before the drill rig is moved to the location where the well will be plugged; and

(b) Notify the Division not less than 24 hours before beginning to plug the well.

3. Before the well driller begins to plug the well, he or she shall:

(a) If possible, obtain the Well Driller's Report for that well from the Division or the owner of the well.

(b) Visually inspect the area around the well and examine Well Driller's Reports in the database maintained on the Division's website to identify any well in the area in which the well

to be plugged is located that may be impacted by the plugging activities. If such a well is identified, the well driller shall request an alternative plan for plugging the well pursuant to NAC 534.422.

4. A well must be plugged pursuant to this section by:

(a) Removing the pump or debris from the well bore with appropriate equipment; and

(b) If an annular cement seal was not installed, attempting to break the casing free with appropriate equipment so that the casing may be pulled from the well.

5. If the casing in the well:

(a) Breaks free, the well driller shall plug the borehole in the manner prescribed in NAC 534.4371 as the casing is pulled from the well. The well must be plugged from the total depth of the well to the surface of the well, in stages if necessary, to displace in an upward direction any fluid or debris in the well.

(b) Except as otherwise provided in paragraph (c), does not break free, the well driller shall perforate that portion of the casing which extends from the bottom of the well to not less than 50 feet above the top of the uppermost saturated groundwater stratum or to the surface of the well, or to the level of the annular seal if the annular seal remains intact. That portion of the casing must be perforated with not less than four equidistant cuts per each 2 linear feet to allow the plugging fluid to penetrate the annular space and the geologic formation. The perforations made in each 2 linear feet of the casing must be made along a horizontal plane of the well bore. A well with a diameter of more than 8 inches in nominal size must be perforated a sufficient number of additional times per linear foot to ensure that the plugging fluid penetrates into the annular space and formation. The well driller shall then plug the well from the total depth of the well to 50 feet above the uppermost saturated groundwater stratum or to within 20 feet of the surface of the well with neat cement, cement grout or bentonite grout or, if authorized under an alternative plan pursuant to NAC 534.422, with bentonite chips. The well driller may use uncontaminated fill from the top of the plug installed 50 feet above the uppermost saturated groundwater stratum to within 20 feet of the surface of the well. The well driller shall place a surface plug in the well consisting of neat cement, cement grout or concrete grout from a depth of at least 20 feet to the surface of the well.

(c) Does not break free and there is no evidence of a sanitary seal around the well casing, the well driller shall perforate the casing from the bottom of the well to not less than 50 feet above the uppermost saturated groundwater stratum and from a depth of at least 50 feet to the surface of the well. The casing must be perforated with not less than four equidistant cuts per each 2 linear feet to allow the plugging fluid to penetrate the annular space and the geologic formation. The perforations made in each 2 linear feet of the casing must be made along a horizontal plane of the well bore. A well with a diameter of more than 8 inches in nominal size must be perforated a sufficient number of additional times per linear foot to ensure that the plugging fluid penetrates into the annular space and the geologic formation. The well driller shall then plug the well from the total depth of the well to 50 feet above the uppermost saturated groundwater stratum or within 50 feet of the surface of the well with neat cement, cement grout or bentonite grout or, if authorized under an alternative plan pursuant to NAC 534.422, with bentonite chips. The well driller may use uncontaminated fill from the top of the plug installed 50 feet above the uppermost saturated groundwater stratum to within 50 feet of the surface of the well. The well driller shall place a surface plug in the well consisting of neat cement or cement grout from a depth of at least 50 feet to the surface of the well.

6. A well driller shall submit a Well Driller's Report to the State Engineer within 30 days after a water well has been plugged. The Well Driller's Report must contain the location of the well by public land survey and county assessor's parcel number, the name of the owner of the well, the condition of the well, the static water level before plugging and a detailed description of the method of plugging, including, but not limited to:

(a) The depth of the well;

(b) The depth to which the materials used to plug the well were placed;

(c) The type, size and location of the perforations which were made in the casing;

(d) The debris encountered in, milled out of or retrieved from the well; and
(e) The materials used to plug the well.
7. If there is any standing liquid in the interval of the well bore that is being plugged, all grout materials used pursuant to this section must be placed by tremie pipe in an upward direction.
[St. Engineer, Drilling Wells Reg. Part 14, eff. 5-19-81]—(NAC A 1-9-90; 12-30-97; R009-06, 6-1-2006; R039-12, 6-29-2012; R044-14, 10-24-2014)

NAC 534.422 Plugging of well: Use of exceptional method. (NRS 534.020, 534.110)
1. A well driller who wishes to plug a well in a manner that does not comply with the provisions set forth in NAC 534.420 must request a waiver pursuant to NAC 534.450.
2. If the Division authorizes the well driller to plug the well in a manner other than the manner set forth in NAC 534.420, the well driller shall comply with the instructions he or she receives from the Division, if any, relating to the manner in which the well must be plugged.
(Added to NAC by St. Engineer, eff. 12-30-97; A by R009-06, 6-1-2006; R039-12, 6-29-2012; R044-14, 10-24-2014)

NAC 534.424 Plugging of well: Responsibility for cost. (NRS 534.020, 534.110)
1. If a well is located on private land, the owner of the land at the time the well is plugged is responsible for the cost of plugging the well.
2. If a well is located on public land, the person who last drilled or used the well is responsible for the cost of plugging the well. If the person who last drilled or used the well does not plug the well after receiving notice from the Division by certified mail, return receipt requested, that the well must be plugged, the Division shall notify the person who owns the land on which the well is located that it is his or her responsibility to plug the well.
(Added to NAC by St. Engineer, eff. 12-30-97; A by R009-06, 6-1-2006)

NAC 534.426 Plugging of well: Artesian conditions. (NRS 534.020, 534.110) If an artesian condition is encountered in any well such that water is flowing at the surface, the artesian water strata must be contained pursuant to NRS 534.060 and NAC 534.378 and the well must be sealed by placing concrete grout, cement grout or neat cement by tremie pipe in an upward direction from the bottom of the well to the surface. The owner and the lessor of the land on which the well is located, the operator of the exploration project and the drilling contractor for the project shall take the necessary steps to prevent the loss of water above or below the surface and to prevent the vertical movement of water in the well bore.
(Added to NAC by St. Engineer by R039-12, eff. 6-29-2012)

NAC 534.427 Mandatory plugging of certain wells. (NRS 534.020, 534.110)
1. If any type of permit, certificate, waiver or application to appropriate water from a water well is cancelled, abrogated, forfeited, withdrawn, expired or denied, the well must be plugged in the manner prescribed in NAC 534.420 or authorized pursuant to NAC 534.422.
2. A well, other than a water well drilled for a domestic purpose, must be plugged in the manner prescribed in NAC 534.420 or authorized pursuant to NAC 534.422 if:
(a) The Division has not issued a permit or waiver for the well; or
(b) The well is not located in a designated basin and there is no reasonable expectation of obtaining a valid permit, waiver or certificate of water right from the Division.
3. A well, including a water well drilled for a domestic purpose, must also be plugged in the manner prescribed in NAC 534.420 or authorized pursuant to NAC 534.422 if the State Engineer sends a notice to the owner of the well by certified mail, return receipt requested, indicating that the well must be plugged and either:
(a) The State Engineer has determined that the well is in any manner defective; or
(b) The Division makes a finding that:
(1) The well tends to impair existing rights or the safety and welfare of the residents of this State;

(2) The mechanical integrity of the construction of the well has failed or is unknown;
(3) The well was not drilled in compliance with the provisions of this chapter;
(4) The well was not drilled in compliance with the provisions of chapter 534 of NRS;
(5) The well tends to cause contamination of the groundwater aquifer;
(6) There is no evidence of impending use of the well for any legal purpose or that no legal use of the well is allowed; or
(7) The well tends to cause water to be wasted above or below the surface of the well.
(Added to NAC by St. Engineer, eff. 1-9-90; A 12-30-97; R009-06, 6-1-2006; R044-14, 10-24-2014)

NAC 534.430 Means to measure level of water in well required. (NRS 534.020, 534.110, 534.140)
1. Except as otherwise provided in subsection 3, each well that is drilled must have:
(a) An access port near the top of the casing that is not less than 2 inches in diameter;
(b) A commercially manufactured sanitary well cap that may be easily removed to determine the level of water in the well; or
(c) A reliable electronic means to measure the level of water in the well.
2. An access port must have a watertight, screw-type cap seal to prevent contamination and must be kept closed.
3. On wells that are 8 5/8 inches in diameter or smaller, the access may be a 1-inch hole at the top of the casing or in the casing cover with a removable plug or bolt.
4. As used in this section, "access port" means an opening in the top of a well casing in the form of a tapped hole and plug or a capped pipe welded on the casing to permit entry of a device to measure the water level of the well.
[St. Engineer, Drilling Wells Reg. Part 6, eff. 5-19-81]—(NAC A 1-9-90; 12-30-97; R039-12, 6-29-2012; R044-14, 10-24-2014)

NAC 534.432 Mandatory plugging of well as result of noncompliance with requirements for well drilling. (NRS 534.020, 534.110, 534.140, 534.160) If a well was:
1. Constructed by a person who, at the time the well was constructed, was not the holder of a well-drilling license issued pursuant to NRS 534.140; or
2. Not constructed or completed in compliance with the provisions of this chapter as determined by the State Engineer,
➥ the well must be plugged in the manner prescribed in NAC 534.420 at the expense of the person who constructed the well.
(Added to NAC by St. Engineer, eff. 12-30-97; A by R009-06, 6-1-2006; R039-12, 6-29-2012)

NAC 534.4351 Monitoring wells: Restrictions on construction. (NRS 534.020, 534.110, 534.140, 534.170) A monitoring well must be:
1. Drilled only by a well driller who is licensed by the State Engineer; and
2. Constructed in accordance with the provisions of this chapter, except for any provision that is waived by the State Engineer.
(Added to NAC by St. Engineer, eff. 12-30-97; A by R009-06, 6-1-2006; R044-14, 10-24-2014)

NAC 534.4353 Monitoring wells: Responsibilities of owner; permits; affidavit of responsibility for plugging. (NRS 534.020, 534.060, 534.110, 534.140)
1. The owner of a monitoring well shall ensure that the well:
(a) Is constructed in accordance with the provisions of this chapter or a waiver and does not allow contamination of groundwater during its use; and
(b) Is plugged upon abandonment in accordance with NAC 534.4365 when the well is no longer monitored or when otherwise required.

2. A permit to appropriate water or a waiver from the State Engineer is required to drill and collect data from a monitoring well.

3. The well driller shall, when submitting the notice of intent to drill pursuant to NAC 534.320, submit to the Division a notarized affidavit, on a form prescribed by the Division, from the person who will be responsible for plugging the well upon abandonment acknowledging that responsibility.

4. The owner of a monitoring well shall maintain a record of the current status of the monitoring well and shall notify the Division in writing as soon as practicable after determining that the well will no longer be used.

5. If a monitoring well or any other well is to be used to remove a contaminant from groundwater, an environmental permit must be obtained from the State Engineer pursuant to the provisions of NRS 533.437 to 533.4377, inclusive.

(Added to NAC by St. Engineer, eff. 12-30-97; A by R039-12, 6-29-2012; R044-14, 10-24-2014)

NAC 534.4355 Monitoring wells: Casing; prevention of contamination. (NRS 534.020, 534.060, 534.110, 534.140)

1. A well driller shall install casing in a monitoring well. If polyvinyl chloride casing is used, it must comply with the standards adopted by reference pursuant to subsection 1 of NAC 534.362.

2. The well driller shall take the precautions necessary to prevent contamination of groundwater. The equipment used to construct a monitoring well must be decontaminated before the construction of the well is commenced.

3. The diameter of the casing must not exceed 4 inches in nominal size.

4. The connections of the casing must comply with the provisions of NAC 534.360 or 534.362. The connections must be made watertight by:

(a) Wrapping them with teflon tape;

(b) Placing a ring or gasket between them; or

(c) By any other method which will not introduce contaminants into the well except gluing.

5. Both ends of the casing must be capped.

6. The perforations must be of a width and length which will allow the strata to be observed while not permitting the infiltration of the gravel pack through the casing or allowing the contaminants or water from separate strata to commingle.

7. To ensure adequate space for the gravel pack and seals, the well bore of a monitoring well must, for the entire length of the casing placed in the well, be not less than 4 inches larger than the diameter of the casing.

8. Not more than one perforated or screened section of casing may be placed in the well bore of a monitoring well unless the vertical intervals of the well bore in between the screened sections are sealed with neat cement, cement grout or cement-bentonite grout.

9. Not more than one casing may be placed in the well bore of a monitoring well unless the vertical intervals of the well bore in between the screened sections of the casings are sealed with neat cement, cement grout or cement-bentonite grout.

10. Monitoring wells must be drilled an adequate distance from each other to ensure that there is no commingling of the contaminants or groundwater encountered in the wells.

(Added to NAC by St. Engineer, eff. 12-30-97; A by R039-12, 6-29-2012; R044-14, 10-24-2014)

NAC 534.4357 Monitoring wells: Placement of gravel and seals in annular space. (NRS 534.020, 534.110, 534.140)

1. If the water or vapors which are being monitored in a monitoring well are not encountered within 5 feet below the surface of the ground, the well driller shall place in the annular space of the well:

(a) From the bottom of the well to a maximum of 2 feet above the uppermost perforation in the casing, a gravel pack which consists of quartz sand, silica or other materials which will not contaminate the groundwater or the geologic formation;

(b) From the gravel pack placed pursuant to paragraph (a) to a minimum of 2 feet above that gravel pack or to within 20 feet below the surface of the ground, a seal consisting of bentonite chips; and

(c) From the seal placed pursuant to paragraph (b) to the surface, a seal, with a minimum thickness of 20 feet below the surface, consisting of cement grout, neat cement or concrete grout.

2. If the water or vapors which are being monitored in a monitoring well are encountered within 5 feet below the surface of the ground, the well driller shall comply with the requirements of subsection 1, except that:

(a) The gravel pack required pursuant to paragraph (a) of subsection 1 must extend only 6 inches above the uppermost perforation in the casing; and

(b) The surface seal required pursuant to paragraph (c) of subsection 1 must be placed from 1 foot below the surface to the surface.

3. The well driller shall ensure that a bridge does not occur in the annular space during the placement of the gravel pack and seals required pursuant to this section.

4. If more than 20 continuous feet of grout are placed in the annular space of the well or if there is standing liquid in the well bore above the sealing depth, the grout must be placed by tremie pipe in an upward direction.

(Added to NAC by St. Engineer, eff. 12-30-97; A by R039-12, 6-29-2012; R044-14, 10-24-2014)

NAC 534.4359 Monitoring wells: Measures required if contaminant or contaminated water is encountered. (NRS 534.020, 534.110, 534.140) If a contaminant or contaminated water is encountered during the construction of a monitoring well, the strata which contain the contaminant or contaminated water must be cased and sealed in such a manner that the contaminant or contaminated water does not commingle with or impair other strata or the water contained in other strata. The well driller shall seal the strata by grouting or by using special seals or packers, if necessary, to prevent the movement of the contaminants or contaminated water in the well bore.

(Added to NAC by St. Engineer, eff. 12-30-97)

NAC 534.4361 Monitoring wells: Surface pad; prevention of unauthorized use; additional protective measures. (NRS 534.020, 534.110, 534.140)

1. Unless the area surrounding a monitoring well is paved with concrete or asphalt, a surface pad must be installed around the casing at the surface.

2. A threaded or flanged cap or compression seal must be installed to prevent unauthorized use of the well. If the top of the well is flush with the surface and the well protector required pursuant to subsection 3 is of a type which may not be locked, the cap or seal must be of a type which may be locked.

3. The well must also be protected and secured by:

(a) If it is not necessary for the well to be flush with the surface:

(1) Setting a steel surface casing which complies with the requirements set forth in NAC 534.360 and extends not less than 5 feet below the surface pad and not less than 1 foot above the surface pad;

(2) Fitting the top of the steel casing with a locking cap; and

(3) Clearly marking the well as a monitoring well; or

(b) If it is necessary for the well to be flush with the surface:

(1) Placing a well protector capable of supporting vehicular travel which extends one-half inch above the surface pad or concrete or asphalt paving; and

(2) Clearly marking the well as a monitoring well.

4. As used in this section, "surface pad" means a formation of concrete or cement grout with a radius from the center of the well of not less than 12 inches and a thickness of not less than 3 1/2 inches which is set around a monitoring well at a slope to ensure that water flows away from the well.

(Added to NAC by St. Engineer, eff. 12-30-97; A by R039-12, 6-29-2012; R044-14, 10-24-2014)

NAC 534.4363 Monitoring wells: Artesian conditions. (NRS 534.020, 534.060, 534.110, 534.140) If an artesian condition is encountered in a monitoring well, the well driller shall ensure that the well is sealed in the manner prescribed in NAC 534.378.

(Added to NAC by St. Engineer, eff. 12-30-97)

NAC 534.4365 Monitoring wells: Plugging. (NRS 534.020, 534.110)

1. Except as otherwise provided in this section, a monitoring well must be plugged by a licensed well driller within 30 days after monitoring is no longer required.
2. Except as otherwise provided in subsection 4, if the casing in the monitoring well cannot be removed from the well bore, the monitoring well must be plugged by placing neat cement by tremie pipe in an upward direction from the bottom of the well to the surface of the well.
3. Except as otherwise provided in subsection 4, if the casing in the monitoring well can be removed from the well bore, the bottom end of the casing in the monitoring well must be removed or perforated and neat cement must be placed by tremie pipe in an upward direction from the bottom of the well to the surface of the well as the casing is removed from the well bore. If the casing in the monitoring well does not exceed 4 inches in diameter, the casing may be used as the tremie pipe.
4. If a request for a waiver of the requirements in subsection 3 of NAC 534.4355 or NRS 534.4357 has been granted by the State Engineer pursuant to NAC 534.441, the well must be plugged in the manner prescribed in NAC 534.420 or authorized pursuant to NAC 534.422.

(Added to NAC by St. Engineer, eff. 12-30-97; A by R009-06, 6-1-2006; R039-12, 6-29-2012; R044-14, 10-24-2014)

NAC 534.4367 Drive point wells. (NRS 534.020, 534.110, 534.140)

1. A well driller may construct a drive point well without placing in the annular space of the well the gravel pack and seals required pursuant to NAC 534.4357.
2. The diameter of the casing used in a drive point well which is not constructed pursuant to the provisions of NAC 534.4357 must not be larger than 2 inches in nominal size.
3. A drive point well which is not constructed pursuant to the provisions of NAC 534.4357 must be plugged within 60 days after the well is constructed. Upon abandonment, the casing must be removed from the well bore and the well bore must be plugged in the manner provided in NAC 534.4371.

(Added to NAC by St. Engineer, eff. 12-30-97; A by R039-12, 6-29-2012)

NAC 534.4369 Boreholes: Generally. (NRS 534.020, 534.110)

1. A borehole may be drilled or plugged by a person who is not a licensed well driller.
2. A person who constructs or plugs a borehole is not required to file with the Division a notice of intent to drill or plug the borehole.
3. A borehole may be drilled without obtaining from the Division a permit to appropriate water or a waiver of the requirement to obtain such a permit.
4. A person who drills or plugs a borehole, the operator of the exploration project or the owner of the land where the borehole is located must maintain a record of the drilling operation which includes:
   (a) The dates on which the borehole is constructed and plugged;
   (b) The location of the borehole as shown by public land survey;
   (c) The depth and diameter of the borehole;

(d) The depth at which groundwater is encountered in the borehole; and

(e) The methods and materials used to plug the borehole.

5. The State Engineer may, at any time, require the person drilling or plugging the borehole, the operator of the exploration project or the owner of the land on which the borehole is located to submit to the State Engineer a copy of the record required pursuant to subsection 4 and any other information relating to the construction, operation or plugging of the borehole that the State Engineer determines is necessary.

6. The owner and the lessor of the land on which a borehole is located, the operator of the exploration project and the drilling or plugging contractor for the project shall ensure that the groundwater is uncontaminated during the drilling, operation or plugging of the borehole.

7. A borehole must not be used to divert water for any purpose.

(Added to NAC by St. Engineer, eff. 12-30-97; A by R009-06, 6-1-2006)

NAC 534.4371 Boreholes: Plugging requirements. (NRS 534.020, 534.110)

1. A borehole must be plugged within 60 days after it is drilled.

2. Except as otherwise provided in subsections 4, 7 and 8 and NAC 534.438, a borehole must be plugged:

(a) In the manner prescribed for plugging a well in NAC 534.420 or authorized pursuant to NAC 534.422; or

(b) If the uppermost saturated groundwater stratum is above the bottom of the borehole:

(1) By placing concrete grout, cement grout, neat cement or bentonite grout by tremie pipe in an upward direction from the bottom of the borehole to within 20 feet of the surface and by placing concrete grout, cement grout or neat cement from 20 feet below the surface to the surface;

(2) By placing bentonite chips specifically designed to be used to plug boreholes from the bottom of the borehole to within 20 feet of the surface and by placing concrete grout, cement grout or neat cement from 20 feet below the surface to the surface; or

(3) By placing any of the plugging materials described in this subsection from the total depth of the borehole to 50 feet above the uppermost saturated groundwater stratum and by placing concrete grout, cement grout, or neat cement from 20 feet below the surface to the surface.

3. If the concrete grout, cement grout, neat cement, bentonite grout or bentonite chips are not brought to within 20 feet of the surface pursuant to paragraph (b) of subsection 2, the person responsible for plugging the borehole shall:

(a) Measure the depth of the top of the lower plug with the appropriate equipment after he or she has allowed sufficient time for the lower plug to set up;

(b) Continue to install concrete grout, cement grout, neat cement, bentonite grout or bentonite chips until the top of the lower plug remains at least 50 feet above the top of the uppermost saturated groundwater stratum;

(c) Install uncontaminated fill material or one of the plugging materials described in this subsection from the top of the lower plug to within 20 feet of the surface; and

(d) Place concrete grout, cement grout or neat cement from 20 feet below the surface to the surface.

4. If the elevation of the bottom of the borehole is higher than the preexisting natural elevation of the uppermost saturated groundwater stratum, the borehole must be plugged by:

(a) Backfilling the borehole from the bottom of the borehole to within 20 feet of the surface with uncontaminated soil; and

(b) Placing concrete grout, cement grout or neat cement from 20 feet below the surface to the surface.

5. If bentonite chips or uncontaminated soil is placed in the borehole, they must be placed in such a manner that a bridge does not occur. If poured in standing water, bentonite chips must be screened to eliminate the fines. Bentonite chips may be placed by tremie pipe.

6. If casing is set in a borehole, the borehole must be completed as a well pursuant to the provisions of this chapter. The borehole must be plugged pursuant to NAC 534.420 or as

authorized pursuant to NAC 534.422 or the casing must be removed from the borehole when it is plugged. The upper portion of the borehole may be permanently cased if the annular space between the casing and the walls of the borehole is completely sealed from the bottom of the casing to the surface pursuant to NAC 534.380.

7. If there is evidence that water-draining formations (lost circulation), or water-bearing formations of different water quality or hydraulic head were encountered during the original borehole construction and if bentonite chips or bentonite grout is used as the plugging material, the well driller must, in addition to the requirements of this section, place neat cement across the water-confining formations so that the plugging fluid penetrates the geologic formation to prevent the vertical movement of water. Any drilling casing or pipe that does not break free, and occludes the placement of neat cement across a confining formation, must be perforated so that the plugging fluid penetrates the annular space and the geologic formation in that interval.

8. If the water-bearing formations are unknown and any drilling casing or pipe does not break free, the well driller must plug the borehole in accordance with paragraph (b) of subsection 5 of NAC 534.420 so that the plugging fluid penetrates the annular space and the geologic formation in the perforated intervals.

(Added to NAC by St. Engineer, eff. 12-30-97; A by R009-06, 6-1-2006; R039-12, 6-29-2012; R044-14, 10-24-2014)

NAC 534.4373 Boreholes: Responsibility for plugging. (NRS 534.020, 534.110) The owner and lessor of the land on which a borehole is located, the operator of the exploration project and the plugging contractor for the project are jointly and severally responsible for plugging the borehole pursuant to this chapter.

(Added to NAC by St. Engineer, eff. 12-30-97)

NAC 534.4375 Boreholes, blast holes and seismic shot holes: Artesian conditions. (NRS 534.020, 534.060, 534.110) If an artesian condition is encountered in any borehole, blast hole or seismic shot hole, the artesian water strata must be contained pursuant to NRS 534.060 and NAC 534.378, and the borehole, blast hole or seismic shot hole must be sealed by placing concrete grout, cement grout, bentonite chips or neat cement by tremie pipe in an upward direction from the bottom of the borehole to the surface. The owner and lessor of the land on which a borehole is located, the operator of the exploration project and the drilling contractor for the project shall take the necessary steps to prevent the loss of water above or below the surface and to prevent the vertical movement of water in the well bore.

(Added to NAC by St. Engineer, eff. 12-30-97; A by R039-12, 6-29-2012)

NAC 534.4376 Instrumentation boreholes. (NRS 534.020, 534.110)

1. An instrumentation borehole may be drilled by an unlicensed well driller.
2. The installation of monitoring instruments and simultaneous plugging must be:

(a) Completed by a well driller who is licensed in this State; or

(b) Supervised and documented by the responsible project geologist, hydrologist or engineer.

3. An instrumentation borehole must be permanently plugged at the time of completion pursuant to NAC 534.4371.

4. Documentation of each instrumentation borehole must be completed and maintained pursuant to NAC 534.4369.

(Added to NAC by St. Engineer by R039-12, eff. 6-29-2012)

NAC 534.43763 Electrical cathodic protection conductor deemed specific type of instrumentation borehole. (NRS 534.020, 534.110) For the purposes of this chapter, an electrical cathodic protection conductor is a part of a system to prevent corrosion or to provide electrical grounding and is deemed to be a specific type of instrumentation borehole.

(Added to NAC by St. Engineer by R039-12, eff. 6-29-2012)

NAC 534.43767 Core hole deemed specific type of borehole. (NRS 534.020, 534.110) For the purposes of this chapter, a core hole is deemed to be a specific type of borehole.

(Added to NAC by St. Engineer by R039-12, eff. 6-29-2012)

NAC 534.4377 Treatment of certain holes as boreholes. (NRS 534.020, 534.110)

1. If the construction of a seismic shot hole or a hole used for the installation of electrical conductors as part of a system to prevent corrosion or provide electrical grounding may cause waste or contamination of the groundwater, the hole shall be deemed a borehole for the purposes of NAC 534.4369 and 534.4371.

2. Any borehole which is drilled for oil, gas or geothermal resource observation, temperature gradient survey, production or injection purposes shall be deemed a borehole for the purposes of NAC 534.4369 and 534.4371, unless another governmental agency has requirements that are the same as or more strict than the requirements of this chapter.

3. Any borehole which is drilled for oil, gas or geothermal resource observation, temperature gradient survey, production or injection purposes, and which has casing or tubing installed for more than 60 days, shall be deemed a well or a monitoring well for the purposes of NAC 534.4351 to 534.4365, inclusive, and subsection 6 of NAC 534.4371, unless another governmental agency has requirements that are the same as or more strict than the requirements of this chapter.

4. Any borehole drilled for geothermal heat loop installation shall be deemed a borehole for the purposes of NAC 534.4369 and 534.4371, unless another governmental agency has requirements that are the same as or more strict than the requirements of this chapter.

(Added to NAC by St. Engineer, eff. 12-30-97; A by R039-12, 6-29-2012)

NAC 534.438 Prerequisites to using bentonite grout to seal, grout or plug borehole. (NRS 534.020, 534.110) Before using bentonite grout to seal, grout or plug a borehole, the responsible project geologist, hydrologist or engineer using the bentonite grout must:

1. Consider the geology encountered in the borehole and any requirements set forth in this chapter or chapter 534 of NRS in his or her selection of the bentonite grout;

2. Mix the bentonite grout and place the bentonite grout in accordance with specifications recommended by the manufacturer; and

3. Place additional cement plugs as necessary, across low permeability geologic formations encountered in the borehole, to ensure that no water can move vertically in the borehole.

(Added to NAC by St. Engineer by R009-06, eff. 6-1-2006; A by R039-12, 6-29-2012)

WAIVERS

NAC 534.440 Waiver to drill exploratory well to determine quality or quantity of water in designated basin. (NRS 534.020, 534.050, 534.110)

1. A request for a waiver to drill an exploratory well to determine the quality or quantity of water pursuant to NRS 534.050 in a designated basin must be submitted to the State Engineer in writing and contain the following information:

(a) The location by public land survey, county assessor's parcel number, map of the vicinity and plat map of the exploratory well anticipated to be drilled;

(b) The name, address and telephone number of the person who:

(1) Is collecting data from the exploratory well; and

(2) Will be available to answer questions concerning the well;

(c) The reason for requesting a waiver;

(d) The proposed diameter and depth of the exploratory well;

(e) The estimated starting and completion dates of the exploratory well, not to exceed 90 days after authority is given to drill;

(f) The name, address and telephone number of the person who will be responsible for plugging the well, and the name, address and telephone number of the owner of the land where the well will be located if the owner is not the person responsible for plugging the well; and

(g) A notarized affidavit, on a form prescribed by the Division, from the person who will be responsible for plugging the well upon abandonment acknowledging that responsibility.

2. Each waiver for an exploratory well will bear a unique number preceded by the letter "W." The notice of intent to drill submitted to the Division pursuant to NAC 534.320 and the Well Driller's Report submitted to the Division pursuant to NRS 534.170 must bear this number.

3. The duration of the development and testing of the flow of the exploratory well must not exceed 72 hours, unless otherwise approved in the waiver.

4. A copy of the waiver must be in the possession of the well driller at the drill site.

5. The exploratory well must be:

(a) Plugged by the well driller in the manner prescribed in NAC 534.420 or authorized pursuant to NAC 534.422 within 3 days after the completion of the aquifer tests for which the well was drilled; or

(b) Except as otherwise provided in this paragraph, completed as a well pursuant to the provisions of this chapter before the drill rig is removed from the drill site. The wellhead must be secured at the surface and water may not be used from the well until a permit to appropriate underground water is approved. If a permit to appropriate underground water is not approved at the location of the well within 1 year after the date of completion of the well, the well must be plugged in the manner prescribed in NAC 534.420 or authorized pursuant to NAC 534.422.

6. The water from the exploratory well may not be used for any purpose other than the purposes set forth in the waiver without the written approval of the State Engineer.

7. A waiver to drill an exploratory well will not be granted pursuant to this section for a well in an area in which the Division determines there is sufficient information existing concerning the aquifer for the area.

[St. Engineer, Drilling Wells Reg. Part 16, eff. 5-19-81]—(NAC A 1-9-90; 12-30-97; R009-06, 6-1-2006; R039-12, 6-29-2012; R044-14, 10-24-2014)

NAC 534.441 Waiver to drill monitoring well. (NRS 534.020, 534.050, 534.110)

1. A request for a waiver to drill a monitoring well must be submitted to the State Engineer in writing and contain:

(a) The location of the proposed monitoring well by public land survey, county assessor's parcel number, map of the vicinity and plat map;

(b) The name, address and telephone number of the owner of the land on which the monitoring well will be located;

(c) A statement of the reason for requesting the waiver;

(d) A proposed construction sketch of the monitoring well;

(e) The name of the monitoring well or, if a waiver is requested for multiple monitoring wells, a list of all monitoring wells for which a waiver is requested on the "Additional Well Locations" form;

(f) If requested or previously required, a current, updated copy of the list setting forth the numbers of the monitoring wells for which waivers have been issued previously and the disposition of those wells;

(g) The name, address and telephone number of the person who:

(1) Will collect data from the monitoring well; and

(2) Will be available to answer questions concerning the monitoring well; and

(h) A notarized affidavit, on a form prescribed by the Division, from the person who will be responsible for plugging the well upon abandonment acknowledging that responsibility.

2. A waiver to drill a monitoring well will bear a unique number preceded by the letters "MO." The notice of intent to drill submitted to the Division pursuant to NAC 534.320 and the Well Driller's Report submitted to the Division pursuant to NRS 534.170 must bear this number.

3. A copy of the waiver must be in the possession of the well driller at the drill site.

4. The monitoring well must be completed as a well pursuant to the provisions of this chapter or the waiver before the drill rig is removed from the drill site.

5. Water from the monitoring well may not be used for any purpose other than the purpose set forth in the waiver without the written approval of the State Engineer.

(Added to NAC by St. Engineer by R039-12, eff. 6-29-2012; A by R044-14, 10-24-2014)

NAC 534.442 Waiver to use water to explore for minerals. (NRS 534.020, 534.050, 534.110)

1. A request for a waiver to allow a temporary use of water from an existing well to explore for minerals or to drill a well and to use the water from the well to explore for minerals must be submitted to the State Engineer in writing and contain:

(a) The amount of water that will be used from the well each day, which must not exceed 5 acre-feet per project;

(b) A brief description of the manner in which the water will be put to a beneficial use;

(c) The location of the water well by public land survey, county assessor's parcel number, map of the vicinity and plat map;

(d) The name, address and telephone number of the person who will be responsible for plugging the well, and the name, address and telephone number of the owner of the land where the well will be located if the owner is not the person responsible for plugging the well;

(e) A notarized affidavit, on a form prescribed by the Division, from the person who will be responsible for plugging the well upon abandonment acknowledging that responsibility;

(f) The name, address and telephone number of a person who will be available to answer questions concerning the well; and

(g) The date the project is scheduled to be completed.

2. A waiver granted for the temporary use of water from a well for the exploration of minerals will bear a unique number preceded by the letters "MM." The notice of intent to drill submitted to the Division pursuant to NAC 534.320 and the Well Driller's Report submitted to the Division pursuant to NRS 534.170 must bear this number.

3. A copy of the waiver must be in the possession of the well driller at the drill site.

4. The well must be plugged in the manner prescribed in NAC 534.420 or authorized pursuant to NAC 534.422 within 3 days after the completion of the project.

5. The water from the well may not be used for any purpose other than the purpose set forth in the waiver without the written approval of the State Engineer.

(Added to NAC by St. Engineer, eff. 1-9-90; A 12-30-97; R009-06, 6-1-2006; R039-12, 6-29-2012; R044-14, 10-24-2014)

NAC 534.444 Waiver to use water to explore for oil, gas or geothermal resources. (NRS 534.020, 534.050, 534.110)

1. A request for a waiver to allow the temporary use of water from an existing well to explore for oil, gas or geothermal resources, or to drill a well and use the water from the well to explore for oil, gas or geothermal resources, must be submitted to the State Engineer in writing and contain:

(a) The location of the proposed water well and the oil, gas or geothermal well by public land survey, county assessor's parcel number, map of the vicinity and plat map;

(b) The oil, gas or geothermal state or federal permit and lease number, name of the well and American Petroleum Institute number, if assigned;

(c) The amount of water that will be used from the well each day, which must not exceed 5 acre-feet per each well;

(d) The date the project is scheduled to be completed;

(e) The name, address and telephone number of the person responsible for plugging the well, and the name, address and telephone number of the owner of the land if the owner is not the person who is responsible for plugging the well;

(f) A notarized affidavit, on a form prescribed by the Division, from the person who will be responsible for plugging the well upon abandonment acknowledging that responsibility; and

(g) The name, address and telephone number of a person who will be available to answer questions concerning the well.

2. A waiver that allows the temporary use of water from a water well to explore for oil, gas or geothermal resources will bear a unique number preceded by the letters "OG." The notice of intent to drill submitted to the Division pursuant to NAC 534.320 and the Well Driller's Report submitted to the Division pursuant to NRS 534.170 must bear this number.

3. A copy of the waiver must be in the possession of the well driller at the drill site.

4. The well must be plugged in the manner prescribed in NAC 534.420 or authorized pursuant to NAC 534.422 within 3 days after the completion of the project or upon expiration of the waiver, whichever occurs first.

5. The water from the well may not be used for any purpose other than the purpose set forth in the waiver without the written approval of the State Engineer.

6. A waiver will not be granted pursuant to this section if the State Engineer determines that the quantity of water requested will adversely affect or impair existing water rights or domestic wells.

(Added to NAC by St. Engineer, eff. 1-9-90; A 12-30-97; R009-06, 6-1-2006; R039-12, 6-29-2012; R044-14, 10-24-2014)

NAC 534.446 Waiver to use water for construction of highway. (NRS 534.020, 534.050, 534.110)

1. A request for a waiver to allow the temporary use of water from an existing well for the construction of a highway, or to drill a well and use the water from the well for the construction of a highway, must be submitted to the State Engineer in writing and contain:

(a) The location of the proposed water well by public land survey, county assessor's parcel number, map of the vicinity and plat map;

(b) The project and contract number, if applicable;

(c) The total amount of water that will be used from the well each day;

(d) The name, address and telephone number of the contractor responsible for plugging the well, and the name, address and telephone number of the owner of the land where the well will be located if the owner is not the person responsible for plugging the well in accordance with NAC 534.420;

(e) A notarized affidavit, on a form prescribed by the Division, from the person who will be responsible for plugging the well upon abandonment acknowledging that responsibility;

(f) The name, address and telephone number of a person who will be available to answer questions concerning the project; and

(g) The date the project is scheduled to be completed.

2. A waiver that allows the temporary use of water from a well for the construction of a highway will bear a unique number preceded by the letter "C." The notice of intent to drill submitted to the Division pursuant to NAC 534.320 and the Well Driller's Report submitted to the Division pursuant to NRS 534.170 must bear this number.

3. A copy of the waiver must be in the possession of the well driller at the drill site.

4. The well must be plugged in the manner prescribed in NAC 534.420 or authorized pursuant to NAC 534.422 within 3 days after the completion of the project or upon expiration of the waiver, whichever occurs first.

5. The water from the well may not be used for any purpose other than the purpose set forth in the waiver without the written approval of the State Engineer.

(Added to NAC by St. Engineer, eff. 1-9-90; A 12-30-97; R009-06, 6-1-2006; R039-12, 6-29-2012; R044-14, 10-24-2014)

NAC 534.448 Waiver to drill well in shallow groundwater system to alleviate certain potential hazards. (NRS 534.020, 534.050, 534.110)

1. A request for a waiver to drill a well in a shallow groundwater system for removing water for the purpose of alleviating potential hazards to persons and property resulting from the rise of groundwater caused by secondary recharge must be submitted to the State Engineer in writing and contain:

(a) The location of the proposed well by public land survey, county assessor's parcel number, map of the vicinity and plat map;

(b) The project and contract number, if applicable;

(c) The total amount of water that will be used from the well each day;

(d) The name, address and telephone number of the person responsible for plugging the well, and the name, address and telephone number of the owner of the land where the well will be located if the owner is not the person responsible for plugging the well;

(e) A notarized affidavit, on a form prescribed by the Division, from the person who will be responsible for plugging the well upon abandonment acknowledging that responsibility;

(f) The name, address and telephone number of a person who will be available to answer questions concerning the project; and

(g) The date the project is scheduled to be completed.

2. A waiver to drill a well in a shallow groundwater system for removing water for the purpose of alleviating potential hazards to persons and property resulting from the rise of groundwater caused by secondary recharge will bear a unique number preceded by the letters "DW." The notice of intent to drill submitted to the Division pursuant to NAC 534.320 and the Well Driller's Report submitted to the Division pursuant to NRS 534.170 must bear this number.

3. A copy of the waiver must be in the possession of the well driller at the drill site.

4. The well must be plugged in the manner prescribed in NAC 534.420 or authorized pursuant to NAC 534.422 within 3 days after the completion of the project or upon expiration of the waiver, whichever occurs first.

5. The water from the well may not be used for any purpose other than the purpose set forth in the waiver without the written approval of the State Engineer.

6. Written authorization from the appropriate agency for the discharge of dewatering water must be submitted with the waiver request.

7. A waiver will not be granted pursuant to this section if the State Engineer determines that the quantity of water requested will adversely affect or impair existing water rights or domestic wells.

(Added to NAC by St. Engineer, eff. 12-30-97; A by R009-06, 6-1-2006; R039-12, 6-29-2012; R044-14, 10-24-2014)

NAC 534.449 Waiver of requirement to plug well. (NRS 534.020, 534.060, 534.110)

1. The owner of a well, other than a well drilled for domestic use, who wishes to obtain a waiver pursuant to subsection 7 or 8 of NRS 534.060 from the requirement that a well be plugged must submit a written request for the waiver to the State Engineer. The State Engineer may, for good cause shown, grant such a waiver. The State Engineer will not grant such a waiver if the State Engineer determines that the well is dry or abandoned. The waiver is valid for 1 year after the date on which the waiver is approved. On or before the date on which the waiver is no longer valid, the owner of the well may submit a request to extend the waiver or to make the waiver permanent, if appropriate, as determined by the State Engineer.

2. A request for a waiver, the extension of a waiver or to make a waiver permanent made pursuant to subsection 1 must:

(a) Be made on a form provided by the State Engineer;

(b) Include sufficient information and evidence for the State Engineer to determine that the well is not in any manner defective, including, without limitation, that the conditions set forth in subsection 2 of NAC 534.427 do not apply to the well;

(c) Include a notarized affidavit, on a form prescribed by the Division, from the person who will be responsible for plugging the well upon abandonment acknowledging that responsibility; and

(d) Provide evidence that the well would be useful as a site for monitoring groundwater.

(Added to NAC by St. Engineer by R009-06, eff. 6-1-2006; A by R039-12, 6-29-2012; R044-14, 10-24-2014)

NAC 534.450 Waiver of requirement of this chapter. (NRS 534.020, 534.110)

1. Except as otherwise provided in subsection 2, the State Engineer may, for good cause shown, waive a requirement of the provisions of this chapter.

2. The State Engineer will not waive the requirements set forth in subsection 4 of NAC 534.360.

3. A request for a waiver of a requirement of this chapter must be made in writing to the State Engineer and include:

(a) A detailed statement of the reason for requesting the waiver and the section of this chapter to be waived;

(b) The location or proposed location of the well by public land survey;

(c) The name and address of the owner of the well;

(d) The street address of the location of the well or, if there is no street address, a description of the location of the proposed well, including, but not limited to, common landmarks and cross-streets near the location of the well;

(e) The county assessor's parcel number for the location of the proposed well;

(f) A description of the proposed design and a sectional drawing of the proposed well that includes the depths to the aquifers, the locations of the screens and seals and the materials that will be used;

(g) A notarized affidavit, on a form prescribed by the Division, from the person who will be responsible for plugging the well upon abandonment acknowledging that responsibility;

(h) Any available data to categorize the hydraulic heads, water quality and permeability characteristics of the aquifer; and

(i) Any other information required pursuant to the provisions of this chapter.

4. After reviewing the request, the State Engineer will issue a written notice of his or her decision to the responsible party.

5. Each waiver will bear a unique number preceded by the letter "R." The notice of intent to drill submitted to the Division pursuant to NAC 534.320 and the Well Driller's Report submitted to the Division pursuant to NRS 534.170 must bear this number.

6. The well driller shall ensure that the well complies with the provisions of the waiver and have a copy of the waiver in the well driller's possession when he or she drills the well.

7. The water from the well may not be used for any purpose other than the purpose set forth in the waiver without the written approval of the State Engineer.

[St. Engineer, Drilling Wells Reg. Part 15, eff. 5-19-81)—(NAC A 1-9-90; 12-30-97; R009-06, 6-1-2006; R039-12, 6-29-2012; R044-14, 10-24-2014)

ENFORCEMENT

NAC 534.500 Assessment of demerit points against license of well driller; suspension and reinstatement of license; removal of demerit points. (NRS 534.020, 534.110)

1. The Division shall assess demerit points against the license of a licensed well driller who is found by the State Engineer to have violated any provision of this chapter or chapter 534 of NRS pursuant to the following table:

Classification of Violations	Maximum Demerits
Notice of Intent/Approval	
Failing to submit a notice of intent to drill to the Division as required by NAC 534.320	25
Failing to notify the Division or obtain approval from the Division as required by NAC 534.370 if drilling is suspended or drilling equipment is moved from the drilling site before a well is completed or plugged	75
Well Driller's Report	
Failing to furnish a copy of a Well Driller's Report to the State Engineer as required by NRS 534.170, intentionally making a material misstatement of fact in a Well Driller's Report submitted to the State Engineer pursuant to NRS 534.170 or intentionally making a material misstatement of fact in an amendment to a Well Driller's Report submitted to the State Engineer pursuant to NRS 534.170	75
Submitting a Well Driller's Report to the State Engineer pursuant to NRS 534.170 more than 30 days after a well is completed	10
Submitting a Well Driller's Report to the Division pursuant to NAC 534.420 more than 30 days after a water well has been plugged	10
Licenses	
Intentionally making a material misstatement of fact in an application for a well-drilling license	100
A well driller failing to have the well driller's license card in his or her possession at a drilling site or failing to produce the license card when requested to do so by a representative of the Division as required by NAC 534.330	10
Failing to have a licensed well driller at a well-drilling site when a drill rig is in operation or when any activity involving the construction, reconditioning or plugging of the well is conducted as required by NAC 534.330. (Demerit points will be assessed against the license of the principal well driller for the well-drilling company and against the license of the well driller listed on the notice of intent to drill.)	50
Well construction and plugging	
Failing to comply with any provision of this chapter which establishes standards for the construction, reconditioning or plugging of a well, including, without limitation, improperly placing the annular seal, constructing a well with substandard well casing, using improper products or procedures during the construction, reconditioning or plugging of a well and failing to protect against contamination	75
Failing to make a well accessible to measurements of the water level of the well as required by NAC 534.430	30
Failing to prevent, control or stop the flow of water from an artesian well as required by NRS 534.060 and NAC 534.378	30
Approvals	
Drilling a replacement well more than 300 feet from the location of the existing point of diversion described in the permit, waiver or certificate or moving the replacement well outside of the 40-acre subdivision described in the permit, waiver or certificate of water right in violation of NAC 534.300	25

Classification of Violations	Maximum Demerits
Failing to comply with any term or condition of a permit, waiver or order issued by the State Engineer concerning the drilling or plugging of a well as required by NAC 534.330, including, without limitation, the depth of the annular seal, the location of perforations and the minimum or maximum depth of the well	50
Miscellaneous	
Any other violation of any of the provisions of this chapter or chapter 534 of NRS	To be determined by the Division based on the severity of the violation, but not to exceed 100

2. The Division shall assess demerit points against the license of a well driller only:

(a) After the State Engineer makes a finding that the well driller has violated a provision of this chapter or chapter 534 of NRS as provided in subsection 1;

(b) After the Division gives written notice of an alleged violation to the well driller by registered or certified mail to the last known address of the well driller which specifies the provision of this chapter or chapter 534 of NRS that the well driller is alleged to have violated;

(c) If, within 30 days after the date on which the well driller receives a notice of an alleged violation sent pursuant to paragraph (b), the well driller has failed to respond to the notice of an alleged violation or provides a response to the notice of an alleged violation that is unsatisfactory, as determined by the Division; and

(d) After the conditions set forth in paragraphs (a), (b) and (c) are satisfied, regardless of when the violation occurred.

3. If a licensed well driller accumulates 100 or more demerit points, the State Engineer may, after giving notice and holding a hearing pursuant to NRS 534.160 to determine that the violations which resulted in the demerit points occurred, suspend the license of the well driller indefinitely. If the State Engineer suspends the license of a well driller, the Division shall notify the well driller that his or her license is suspended and the well driller is prohibited from engaging in any activity for which a well-drilling license issued pursuant to NRS 534.140 is required until the license of the well driller is reinstated.

4. A well driller whose license has been suspended pursuant to subsection 3 may have the license reinstated if the well driller:

(a) Satisfies the requirements set forth in subsection 2 of NAC 534.293;

(b) Appears before the State Engineer at a hearing and the State Engineer finds that the well driller is competent to engage in the practice of well drilling in the State of Nevada; and

(c) Resolves any outstanding complaints related to his or her license as a well driller to the satisfaction of the Division.

5. The Division shall reduce the number of demerit points accumulated against the license of a well driller whose license has been suspended pursuant to subsection 3 and reinstated pursuant to subsection 4 to zero.

6. Demerit points assessed against the license of a well driller may be removed by the Division as follows:

(a) Five demerit points may be removed for each credit unit of continuing education approved by the Division and successfully completed by the well driller, as determined by the Division up to a maximum of 50 points per year. The credit units of continuing education that must be completed for the purposes of the removal of demerit points pursuant to this paragraph are in addition to those required by NAC 534.2923.

(b) One-half of the demerit points assessed against the license of a well driller may be removed if the well driller is determined by the State Engineer to not have violated a provision of this chapter or chapter 534 of NRS for the entire year before his or her license is required to be renewed pursuant to NRS 534.140.

(c) Twenty demerit points may be removed if the well driller takes and passes the written examination for a license as a well driller. The Division may remove demerit points pursuant to this paragraph once every other year.

(Added to NAC by St. Engineer by R009-06, eff. 6-1-2006; A by R044-14, 10-24-2014)

STATUTES

CHAPTER 534

UNDERGROUND WATER AND WELLS

NRS 534.010	Definitions.
NRS 534.0105	"Aquifer" defined.
NRS 534.011	"Area of active management" defined.
NRS 534.0115	"Area of hydrologic effect" defined.
NRS 534.012	"Artesian well" defined.
NRS 534.0125	"Augmentation" defined.
NRS 534.013	"Domestic use" and "domestic purposes" defined.
NRS 534.0135	"Percolating waters" defined.
NRS 534.014	"Person" defined.
NRS 534.0145	"Project" defined.
NRS 534.015	"Recharged water" defined.
NRS 534.0155	"Storage account" defined.
NRS 534.016	"Stored water" defined.
NRS 534.0165	"Waste" defined.
NRS 534.017	"Well driller" defined.
NRS 534.0175	"Well drilling" and "drilling a well" defined.
NRS 534.020	Underground waters belong to public and are subject to appropriation for beneficial use; declaration of legislative intent.
NRS 534.025	Removal of underground waters to alleviate hazards caused by secondary recharge is beneficial use.
NRS 534.030	Administration by State Engineer: Petition by appropriators in basin; hearing in absence of petition; certain artesian water, underground aquifers and percolating water; advisory services of governing bodies of water districts and water conservation boards.
NRS 534.035	Groundwater boards: Establishment; number, appointment, terms and expenses of members; officers; meetings and quorum; duties; dissolution.
NRS 534.037	Groundwater management plan for basin designated as critical management area: Petition; hearing; approval or disapproval; judicial review; amendment.
NRS 534.040	Employment and compensation of well supervisor and assistants; levy, collection and distribution of special assessment.
NRS 534.050	Permit to appropriate water required before sinking well in designated groundwater basin; requirements in undesignated areas; waivers; penalties.
NRS 534.060	Conditions for sinking wells; casings and appliances; repair of defective wells; liens; sealing of wells; use of abandoned wells to monitor groundwater.
NRS 534.070	Waste of water from artesian well unlawful.
NRS 534.080	Appropriation of underground water for beneficial use from artesian, definable aquifer or percolating water: Acquisition of rights under chapter 533 of NRS; orders to desist; dates of priority.
NRS 534.090	Forfeiture and abandonment of rights.
NRS 534.100	Recognition of existing water rights; classification of water in definable aquifer or percolating water by State Engineer; adjudication of vested underground water rights.

NRS 534.110	Rules and regulations of State Engineer; statements and pumping tests; conditions of appropriation; designation of critical management areas; restrictions.
NRS 534.120	State Engineer authorized to make rules, regulations and orders when groundwater is being depleted in designated area; preferred uses of water; temporary permits to appropriate water; revocation of temporary permits; restrictions placed on certain wells.
NRS 534.125	State Engineer to file notice related to temporary permit.
NRS 534.130	State Engineer, assistants and Artesian Well Supervisor authorized to enter premises to investigate and carry out duties.
NRS 534.140	Well drillers: Annual licenses; fees; continuing education; regulations for well drilling; licensing by State Contractors' Board.
NRS 534.142	Payment of child support: Statement by applicant for license to drill; grounds for denial of license; duty of State Engineer. [Effective until the date of the repeal of 42 U.S.C. § 666, the federal law requiring each state to establish procedures for withholding, suspending and restricting the professional, occupational and recreational licenses for child support arrearages and for noncompliance with certain processes relating to paternity or child support proceedings.]
NRS 534.144	Suspension of license for failure to pay child support or comply with certain subpoenas or warrants; reinstatement of license. [Effective until the date of the repeal of 42 U.S.C. § 666, the federal law requiring each state to establish procedures for withholding, suspending and restricting the professional, occupational and recreational licenses for child support arrearages and for noncompliance with certain processes relating to paternity or child support proceedings.]
NRS 534.146	Application for license to include social security number of applicant. [Effective until the date of the repeal of 42 U.S.C. § 666, the federal law requiring each state to establish procedures for withholding, suspending and restricting the professional, occupational and recreational licenses for child support arrearages and for noncompliance with certain processes relating to paternity or child support proceedings.]
NRS 534.150	Well Drillers' Advisory Board: Appointment; terms of members; vacancies; compensation; duties.
NRS 534.160	License required to drill well; revocation of or refusal to reissue license; order to plug well; penalty for allowing unlicensed person to drill.
NRS 534.170	Well driller to keep log and records; contents; information to be furnished to State Engineer; report of test.
NRS 534.180	Applicability of chapter to wells used for domestic purposes; registration and plugging of wells used for domestic purposes; wells for accessory dwelling unit of single-family dwelling.
NRS 534.185	Waiver of certain requirements for domestic wells by State Engineer; exceptions.
NRS 534.190	Penalties.
NRS 534.193	Additional penalties.
NRS 534.195	Injunctive and other relief.
NRS 534.250	Project for recharge, storage and recovery of water: Permit required; issuance, contents, modification and assignment of permit; monitoring requirements.
NRS 534.260	Project for recharge, storage and recovery of water: Contents of application for permit.
NRS 534.270	Project for recharge, storage and recovery of water: Review of application for permit; notice of application; protests; hearing; determination; judicial review.
NRS 534.280	Project for recharge, storage and recovery of water: Annual report to State Engineer.

NRS 534.290 Project for recharge, storage and recovery of water: Permit for recovery well; recovery limited to designated wells; designation of person entitled to recover water; use or exchange of recovered water.
NRS 534.300 Project for recharge, storage and recovery of water: Storage account to be established; limit on amount of water recovered.
NRS 534.310 Project for recharge, storage and recovery of water: Annual fee for permit; disposition of money received by State Engineer; employment of consultants by State Engineer.
NRS 534.320 Project for recharge, storage and recovery of water: Revocation or suspension of permit; orders to cease and desist; injunction.
NRS 534.330 Project for recharge, storage and recovery of water: Penalties.
NRS 534.340 Project for recharge, storage and recovery of water: Designation of areas of active management.
NRS 534.350 Requirements for certain public water system to receive credits for addition of new customers to system.
NRS 534.360 Water Rights Technical Support Account: Creation; administration; uses.

CHAPTER 534

UNDERGROUND WATER AND WELLS

CROSS REFERENCES

Administrative Procedure Act, NRS ch. 233B
Board of county commissioners includes Board of Supervisors of Carson City, NRS 0.035
Connection to water system provided by public utility or entity, requirements, financial assistance program, NRS 244.3651, 244.3655
Excavations, abatement of dangerous conditions, NRS ch. 455
Financing of water projects, NRS 349.935-349.987
Groundwater boards—
  Meetings, NRS ch. 241
  Residency requirements, NRS 232A.020
  Vacancies, NRS 232A.020
Livestock grazing at springs or wells belonging to another, liability, NRS 568.340
Waste of water, ordinance may prohibit, NRS 244.3665, 268.411
Water Pollution Control Law, NRS 445A.300-445A.730

NEVADA CASES.

Well driller "substantially" licensed under chapter not precluded from recovering on contract; criminal penalty only sanction. Where a well driller sought money judgment on a contract for exploratory drilling for water and where neither experience, financial responsibility nor specific public detriment were at issue, the fact that, while a license from the State Engineer had been issued, no specialty license as a water-well driller from the State Contractors' Board had been issued under NRS 534.140 did not bar suit, pursuant to NRS 624.320, because the driller was licensed under NRS ch. 624 as an oil- and gas-well driller and substantially so under NRS ch. 534, a criminal penalty was the only sanction, NRS 534.190, under latter and nothing in the record suggested water-drilling techniques differed materially from oil- and gas-drilling techniques. Nevada Equities, Inc. v. Willard Pease Drilling Co., 84 Nev. 300, 440 P.2d 122 (1968), cited, Robken v. May, 84 Nev. 433, at 434, 442 P.2d 913 (1968), Martin Bloom Associates, Inc. v. Manzie, 389 F. Supp. 848, at 851 (1975), MGM Grand Hotel, Inc. v. Imperial Glass Co., 533 F.2d 486, at 489, (1976), Day v. West Coast Holdings, Inc., 101 Nev. 260, at 265, 699 P.2d 1067 (1985), Interstate Commercial Bldg. Servs., Inc. v. Bank of Amer., 23 F. Supp. 2d 1166, at 1173 (D. Nev. 1998), see also Kourafas v. Basic Food Flavors, Inc., 120 Nev. 195, at 199, 88 P.3d 822 (2004), distinguished, Loomis v. Lange Fin. Corp., 109 Nev. 1121, at 1129, 865 P.2d 1161 (1993)

FEDERAL AND OTHER CASES.

Water reserved by the United States not subject to appropriation under state law. Where owners of land near a national monument had not acquired water rights by appropriation (see NRS 533.325 and 534.020) and beneficial use (see NRS 533.035 and 534.020) pursuant to NRS chs. 533 and 534 before the time land was withdrawn from the public domain, they had no interest in the water at the time of withdrawal and could acquire none thereafter, because patentees of federal land must acquire water rights pursuant to state law. As the water was reserved by the United States when the monument was created, it was no longer subject to appropriation under state law. Cappaert v. United States, 96 S.Ct. 2062 (1976), cited, Salmon River Canal Co. v. Bell Brand Ranches, Inc., 564 F.2d 1244, at 1247 (1977)

ATTORNEY GENERAL'S OPINIONS.

State Engineer authorized to regulate the actual use of water by the holder of a permit. Under NRS chs. 533 and 534, the State Engineer has authority to regulate the actual use of water diverted under permission conferred by permit and may make such regulations and orders as are deemed essential for the welfare of the area involved. AGO 223 (3-28-1978)

County commissioners not bound by the determination of the State Engineer concerning the availability of water. A board of county commissioners, in adopting a master plan and in approving or disapproving subdivisions pursuant to NRS ch. 278, is not bound by the determinations of the State Engineer as to the availability of water and issuance of water permits under NRS chs. 533 and 534. (N.B., amendment of NRS 534.120 in 2007.) AGO 223 (3-28-1978)

NRS 534.010 Definitions.

1. As used in this chapter, unless the context otherwise requires, the words and terms defined in NRS 534.0105 to 534.0175, inclusive, have the meanings ascribed to them in those sections.

2. As used in this chapter, the terms "underground water" and "groundwater" are synonymous.

[Part 2:178:1939; A 1947, 52; 1949, 128; 1955, 328]—(NRS A 1957, 714; 1971, 867; 1981, 658; 1985, 522, 1302; 1987, 1776)

NRS 534.0105 "Aquifer" defined. "Aquifer" means a geological formation or structure that stores or transmits water, or both.

(Added to NRS by 1987, 1770)

NRS 534.011 "Area of active management" defined. "Area of active management" means an area:

1. In which the State Engineer is conducting particularly close monitoring and regulation of the water supply because of heavy use of that supply; and

2. Which has received that designation by the State Engineer pursuant to NRS 534.030.

(Added to NRS by 1987, 1770; A 1989, 598)

NRS 534.0115 "Area of hydrologic effect" defined. "Area of hydrologic effect" means the surface area of land covering the extent of hydrologic response of water recharged pursuant to a project to recharge.

(Added to NRS by 1987, 1770)

NRS 534.012 "Artesian well" defined. "Artesian well" means a well tapping an aquifer underlying an impervious material in which the static water level in the well stands above where it is first encountered in the aquifer.

(Added to NRS by 1987, 1770)

NRS 534.0125 "Augmentation" defined. "Augmentation" means to increase the volume of stored water in a system of aquifers by artificially introducing water into that system.

(Added to NRS by 1987, 1770)

NRS 534.013 "Domestic use" and "domestic purposes" defined. "Domestic use" or "domestic purposes" extends to culinary and household purposes directly related to:

1. A single-family dwelling; and
2. An accessory dwelling unit for a single-family dwelling if provided for in an applicable local ordinance,

➥ including, without limitation, the watering of a family garden and lawn and the watering of livestock and any other domestic animals or household pets, if the amount of water drawn does not exceed the maximum amount set forth in NRS 534.180 for exemption from the application of this chapter.

(Added to NRS by 1987, 1770; A 1999, 1184; 2007, 842)

NRS 534.0135 "Percolating waters" defined. "Percolating waters" are underground waters, the course and boundaries of which are incapable of determination.

(Added to NRS by 1987, 1770)

NRS 534.014 "Person" defined. "Person" includes any municipal corporation, power district, political subdivision of this or any state, or an agency of the United States Government.

(Added to NRS by 1987, 1770)

NRS 534.0145 "Project" defined. "Project" means a facility designed and constructed to add water to a system of aquifers, store water underground and recover that water pursuant to a permit issued pursuant to NRS 534.250.

(Added to NRS by 1987, 1770)

NRS 534.015 "Recharged water" defined. "Recharged water" means water that reaches or percolates into an aquifer or system of aquifers:

1. Through natural processes;
2. By secondary recharge as a result of beneficial uses; or
3. Artificially through facilities specifically constructed for that purpose.

(Added to NRS by 1987, 1770)

NRS 534.0155 "Storage account" defined. "Storage account" means an account established pursuant to NRS 534.300 for a project for underground storage and recovery.

(Added to NRS by 1987, 1770)

NRS 534.016 "Stored water" defined. "Stored water" means water which has been stored underground for the purpose of recovery pursuant to a permit issued pursuant to NRS 534.250.

(Added to NRS by 1987, 1770)

NRS 534.0165 "Waste" defined. "Waste" means causing, suffering or permitting any artesian well to discharge water unnecessarily above or below the surface of the ground so that the waters thereof are lost for beneficial use or in any canal or ditch conveying water from a well where the loss of water in transit is more than 20 percent of the amount of the water discharged from the well.

(Added to NRS by 1987, 1770)

NRS 534.017 "Well driller" defined. "Well driller" means any person who drills a well or wells, for compensation or otherwise.

(Added to NRS by 1987, 1770)

NRS 534.0175 "Well drilling" and "drilling a well" defined. "Well drilling" or "drilling a well" are synonymous, and mean drilling or boring new wells, placing casing in wells, cleaning and repairing existing wells, cementing wells and doing all other things normally associated with the construction or rehabilitation of wells.

(Added to NRS by 1987, 1770)

NRS 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.

[1:178:1939; 1931 NCL § 7993.10]

ADMINISTRATIVE REGULATIONS.

Underground water and wells, NAC ch. 534

FEDERAL AND OTHER CASES.

Appropriation by Federal Government on federal reservation not subject to state law. Federal reservations are not public lands, and the Federal Government need not comply with state laws governing appropriation of waters when appropriating waters on federal reservations, regardless of what the law may be concerning public lands. State ex rel. Shamberger v. United States, 165 F. Supp. 600 (D. Nev. 1958)

Immunity of Federal Government from compliance is result of supremacy of Federal Government. The supremacy of the Federal Government within the scope of its delegated powers makes it unnecessary for the Federal Government to comply with state laws governing appropriation on waters insofar as appropriation of waters on federal reservations is concerned. State ex rel. Shamberger v. United States, 165 F. Supp. 600 (D. Nev. 1958)

Immunity follows, under circumstances of case, from power of Federal Government relating to national defense. Provisions of the U.S. Constitution relating to national defense prevent the State of Nevada from requiring the Federal Government to comply with the laws of the state concerning appropriation of waters insofar as appropriation of waters on lands of the U.S. Naval Ammunition Depot in Mineral County is concerned. State ex rel. Shamberger v. United States, 165 F. Supp. 600 (D. Nev. 1958)

Absent consent to suit, action against Federal Government to compel compliance with chapter properly dismissed. An action filed by the State of Nevada in an effort to require the United States to comply with NRS 534.020-534.190 when appropriating water on lands over which jurisdiction had been ceded to the U.S. under NRS 328.260 was properly dismissed because the U.S. has not consented to be sued by a state for a declaration as to which sovereign is vested with control of appropriation of water for beneficial use by the U.S. on public lands withdrawn from entry. Nevada ex rel. Shamberger v. United States, 279 F.2d 699 (9th Cir. 1960)

Effect of federal reservation. Where owners of land near a national monument had not acquired water rights by appropriation (see NRS 533.325 and 534.020) and beneficial use (see NRS 533.035 and 534.020) pursuant to NRS chs. 533 and 534 prior to the time land was withdrawn from the public domain, they had no interest in the water at the time of withdrawal and could acquire none thereafter, because patentees of federal land must acquire water rights pursuant to state law. As water was reserved by the United States when the monument was created, it was no longer subject to appropriation under state law. Cappaert v. United States, 96 S.Ct. 2062 (1976), cited, Salmon River Canal Co. v. Bell Brand Ranches, Inc., 564 F.2d 1244, at 1247 (1977)

Beneficial use must be considered when evaluating petition for reclassification of water rights. In an action appealing the reclassification of water rights on farm land in the Newlands Reclamation Project, the federal court of appeals reversed the district court's finding that a reduction in crop yield justified an increase in water usage. In evaluating the petition for reclassification, the district court erred by failing to apply the beneficial use standard (see also NRS 533.035 and 534.020) which allows consideration of reduction in crop yield but which also requires any such reduction to be reasonably significant in light of the prohibitions against waste and unreasonable applications of water in order to justify a reclassification from "bottom land" to "bench land." United States v. Clifford Matley Family Trust, 354 F.3d 1154 (9th Cir. 2004)

ATTORNEY GENERAL'S OPINIONS.

Developed mining water subject to appropriation. Developed mining water is subject to appropriation as provided under NRS 533.030, because NRS 534.020 provides that all underground water belongs to the public and is subject to appropriation under the law of the state. Prior case law is superseded. AGO 331 (4-25-1966)

NRS 534.025 Removal of underground waters to alleviate hazards caused by secondary recharge is beneficial use. The removal of groundwater from any basin in Nevada, to alleviate potential hazards to persons and property resulting from the rise of groundwater caused by secondary recharge, is hereby declared to be a beneficial use if it is accomplished pursuant to the terms and conditions of a waiver issued pursuant to paragraph (c) of subsection 2 of NRS 534.050.

(Added to NRS by 1987, 1776)

NRS 534.030 Administration by State Engineer: Petition by appropriators in basin; hearing in absence of petition; certain artesian water, underground aquifers and percolating water; advisory services of governing bodies of water districts and water conservation boards.

1. Upon receipt by the State Engineer of a petition requesting the State Engineer to administer the provisions of this chapter as relating to designated areas, signed by not less than 40 percent of the appropriators of record in the Office of the State Engineer, in any particular basin or portion therein, the State Engineer shall:

(a) Cause to be made the necessary investigations to determine if such administration would be justified.

(b) If the findings of the State Engineer are affirmative, designate the area by basin, or portion therein, and make an official order describing the boundaries by legal subdivision as nearly as possible.

(c) Proceed with the administration of this chapter.

2. In the absence of such a petition from the owners of wells in a groundwater basin which the State Engineer considers to be in need of administration, the State Engineer shall hold a public hearing:

(a) If adequate facilities to hold a hearing are available within the basin; or

(b) If such facilities are unavailable, hold the hearing within the county where the basin lies or within the county, where the major portion of the basin lies,

➥ to take testimony from those owners to determine whether administration of that basin is justified. If the basin is found, after due investigation, to be in need of administration the State Engineer may enter an order in the same manner as if a petition, as described in subsection 1, had been received.

3. The order of the State Engineer may be reviewed by the district court of the county pursuant to NRS 533.450.

4. The State Engineer shall supervise all wells tapping artesian water or water in definable underground aquifers drilled after March 22, 1913, and all wells tapping percolating water drilled subsequent to March 25, 1939, except those wells for domestic purposes for which a permit is not required.

5. Within any groundwater basin which has been designated or which may hereafter be so designated by the State Engineer, except groundwater basins subject to the provisions of NRS 534.035, and wherein a water conservation board has been created and established or wherein a water district has been created and established by law to furnish water to an area or areas within the basin or for groundwater conservation purposes, the State Engineer, in the administration of the groundwater law, shall avail himself or herself of the services of the governing body of the water district or the water conservation board, or both of them, in an advisory capacity. The governing body or water board shall furnish such advice and assistance to the State Engineer as is necessary for the purpose of the conservation of groundwater within the areas affected. The services of the governing body or water conservation board must be without compensation from the State, and the services so rendered must be upon reasonable agreements effected with and by the State Engineer.

[4:178:1939; A 1947, 52; 1949, 128; 1953, 188]—(NRS A 1957, 715; 1961, 489; 1967, 1052; 1981, 916, 1841; 1983, 534)

REVISER'S NOTE.

Ch. 113, Stats. 2003, contains the following provision not included in NRS:

"The State Engineer shall review whether his administrative powers in basins designated pursuant to NRS 534.030 are sufficient for the essential welfare of those basins and on or before February 1, 2005, shall provide to the Director of the Legislative Counsel Bureau for transmission to the 73rd Session of the Nevada Legislature a report identifying any additional administrative powers, including, without limitation, the ability to assess a monetary penalty, that he believes are necessary to enable him to carry out his duties with respect to those basins."

ADMINISTRATIVE REGULATIONS.

Artesian conditions, NAC 534.378, 534.4363, 534.4375

FEDERAL AND OTHER CASES.

Absent consent to suit, action against Federal Government to compel compliance with chapter properly dismissed. An action filed by the State of Nevada in an effort to require the United States to comply with NRS 534.020-534.190 when appropriating water on lands over which jurisdiction had been ceded to the U.S. under NRS 328.260 was properly dismissed because the U.S. has not consented to be sued by a state for a declaration as to which sovereign is vested with control of appropriation of water for beneficial use by the U.S. on public lands withdrawn from entry. Nevada ex rel. Shamberger v. United States, 279 F.2d 699 (9th Cir. 1960)

ATTORNEY GENERAL'S OPINIONS.

State engineer may designate artesian basins under rulemaking power. Ch. 178, Stats. 1939 (cf. NRS 534.010-534.190) providing for administration of underground waters does not contain the full procedure for designating artesian basins, but the state engineer may adopt a procedure for designating the boundaries of the basins under the rulemaking power conferred by sec. 10, ch. 178, Stats. 1939 (cf. NRS 534.110). AGO B-29 (1-6-1941)

Declaration pursuant to section not stayed on review absent filing of bond. Where the state engineer declares an area an artesian basin under NRS 534.030, relating to supervision of groundwater basins by the state engineer, and a petition is filed for judicial review under NRS 533.450, the declaration of the state engineer is not stayed unless a bond is filed in the manner provided by NRS 533.450. AGO 181 (10-11-1960)

NRS 534.035 Groundwater boards: Establishment; number, appointment, terms and expenses of members; officers; meetings and quorum; duties; dissolution.

1. In each area designated as a groundwater basin by the State Engineer pursuant to the provisions of NRS 534.030, the board of county commissioners may recommend to the State

Engineer that the State Engineer establish a groundwater board. The State Engineer shall determine whether or not a groundwater board is to be established and may direct its establishment by order.

2. If a groundwater board is established, the governing bodies of all the cities and towns within the designated area, the board of county commissioners of each county in which the area is located, and the governing body of any water district in which the area is included, or partly included, shall each submit a list of names of residents of the area to the Governor, who shall appoint seven members of the board. At least one member must be appointed from each list.

3. After the initial terms, the term of office of each member of the board is 4 years. The board shall elect one member as chair and one member as secretary to serve as such at the pleasure of the board.

4. The board shall maintain its headquarters at the county seat of the county in which the designated area is located, or if the area lies in more than one county, in the county seat of one of the counties in which the area is located. The board shall hold meetings at such times and places as it may determine. Special meetings may be called at any time by the secretary at the request of any four members, or by the chair, upon notice specifying the matters to be acted upon at the meeting. No matters other than those specified in the notice may be acted upon at that meeting unless all members are present and consent thereto.

5. A majority of the board constitutes a quorum, and the board shall act only by a majority of those present.

6. For each day's attendance at each meeting of the groundwater board, or for each day when services are actually performed for the groundwater board, the members are entitled to receive per diem and travel allowances provided by law. Claims for those expenses must be paid as provided in subsection 6 of NRS 534.040.

7. The State Engineer shall not approve any application or issue any permit to drill a well, appropriate groundwater, change the place or manner of use or the point of diversion of water within the designated area, adopt any related regulations or enter any related orders until the State Engineer has conferred with the board and obtained its written advice and recommendations.

8. It is the intention of the Legislature that the State Engineer and the board be in agreement whenever possible, but, for the purpose of fixing responsibility to the Governor, if there is any disagreement between the State Engineer and the board, the views of the State Engineer prevail. A written report of any such disagreement must be made immediately to the Governor by the State Engineer and the board.

9. Any groundwater board may request from the State Engineer or any other state, county, city or district agency such technical information, data and advice as it may require to perform its functions, and the State Engineer and such other agencies shall, within the resources available to them, furnish such assistance as may be requested.

10. The Governor may dissolve the groundwater board by order if the Governor determines that the future activities of the board are likely to be insubstantial.

(Added to NRS by 1961, 488; A 1967, 1252; 1973, 182; 1977, 1235; 1981, 67, 917)

NRS CROSS REFERENCES.
Board of county commissioners includes Board of Supervisors of Carson City, NRS 0.035
Meetings of public agencies, NRS ch. 241
Vacancies on boards, NRS 232A.020

NRS 534.037 Groundwater management plan for basin designated as critical management area: Petition; hearing; approval or disapproval; judicial review; amendment.

1. In a basin that has been designated as a critical management area by the State Engineer pursuant to subsection 7 of NRS 534.110, a petition for the approval of a groundwater management plan for the basin may be submitted to the State Engineer. The petition must be signed by a majority of the holders of permits or certificates to appropriate water in the basin that

are on file in the Office of the State Engineer and must be accompanied by a groundwater management plan which must set forth the necessary steps for removal of the basin's designation as a critical management area.

2. In determining whether to approve a groundwater management plan submitted pursuant to subsection 1, the State Engineer shall consider, without limitation:

(a) The hydrology of the basin;

(b) The physical characteristics of the basin;

(c) The geographic spacing and location of the withdrawals of groundwater in the basin;

(d) The quality of the water in the basin;

(e) The wells located in the basin, including, without limitation, domestic wells;

(f) Whether a groundwater management plan already exists for the basin; and

(g) Any other factor deemed relevant by the State Engineer.

3. Before approving or disapproving a groundwater management plan submitted pursuant to subsection 1, the State Engineer shall hold a public hearing to take testimony on the plan in the county where the basin lies or, if the basin lies in more than one county, within the county where the major portion of the basin lies. The State Engineer shall cause notice of the hearing to be:

(a) Given once each week for 2 consecutive weeks before the hearing in a newspaper of general circulation in the county or counties in which the basin lies.

(b) Posted on the Internet website of the State Engineer for at least 2 consecutive weeks immediately preceding the date of the hearing.

4. The decision of the State Engineer on a groundwater management plan may be reviewed by the district court of the county pursuant to NRS 533.450.

5. An amendment to a groundwater management plan must be proposed and approved in the same manner as an original groundwater management plan is proposed and approved pursuant to this section.

(Added to NRS by 2011, 1383)

NRS 534.040 Employment and compensation of well supervisor and assistants; levy, collection and distribution of special assessment.

1. Upon the initiation of the administration of this chapter in any particular basin, and where the investigations of the State Engineer have shown the necessity for the supervision over the waters of that basin, the State Engineer may employ a well supervisor and other necessary assistants, who shall execute the duties as provided in this chapter under the direction of the State Engineer. The salaries of the well supervisor and the assistants of the well supervisor must be fixed by the State Engineer. The well supervisor and assistants are exempt from the provisions of chapter 284 of NRS.

2. The board of county commissioners shall levy a special assessment annually, or at such time as the assessment is needed, upon all taxable property situated within the confines of the area designated by the State Engineer to come under the provisions of this chapter in an amount as is necessary to pay those salaries, together with necessary expenses, including the compensation and other expenses of the Well Drillers' Advisory Board if the money available from the license fees provided for in NRS 534.140 is not sufficient to pay those costs. In designated areas within which the use of groundwater is predominantly for agricultural purposes the levy must be charged against each water user who has a permit to appropriate water or a perfected water right, and the charge against each water user must be based upon the proportion which his or her water right bears to the aggregate water rights in the designated area. The minimum charge is $1.

3. The salaries and expenses may be paid by the State Engineer from the Water Distribution Revolving Account pending the levy and collection of the assessment as provided in this section.

4. The proper officers of the county shall levy and collect the special assessment as other special assessments are levied and collected, and the assessment is a lien upon the property.

5. The assessment provided for, when collected, must be deposited with the State Treasurer for credit to the Water District Account to be accounted for in basin well accounts.

6. Upon determination and certification by the State Engineer of the amount to be budgeted for the current or ensuing fiscal year for the purpose of paying the per diem and travel allowances of the groundwater board and employing consultants or other help needed to fulfill its responsibilities, the State Controller shall transfer that amount to a separate operating account for that fiscal year for the groundwater basin. Claims against the account must be approved by the groundwater board and paid as other claims against the State are paid. The State Engineer may use money in a particular basin well account to support an activity outside the basin in which the money is collected if the activity bears a direct relationship to the responsibilities or activities of the State Engineer regarding the particular groundwater basin.

[5:178:1939; A 1943, 139; 1947, 52; 1953, 188]—(NRS A 1957, 716; 1963, 796; 1967, 1253; 1969, 342; 1979, 668; 1985, 694; 1991, 1784; 1993, 2352; 1995, 222)

NRS CROSS REFERENCES.

Board of county commissioners includes Board of Supervisors of Carson City, NRS 0.035

State Personnel System, NRS ch. 284

ATTORNEY GENERAL'S OPINIONS.

Circumstances under which special tax is subject to constitutional limitation on levy of ad valorem taxes. The special tax imposed pursuant to NRS 534.040 for the expenses of groundwater basin administration is an ad valorem tax for public purposes within the five-cent-per-dollar limitation on total tax levy provided in Nev. Art. 10, § 2, when levied against all taxable property in the basin, but is a special assessment outside such constitutional limitation when levied only against water users in the basin where the predominant use of groundwater is agricultural. AGO 125 (4-20-1973)

NRS 534.050 Permit to appropriate water required before sinking well in designated groundwater basin; requirements in undesignated areas; waivers; penalties.

1. Except as otherwise provided in subsection 2 and NRS 534.180, every person desiring to sink or bore a well in any basin or portion therein in the State designated by the State Engineer, as provided for in this chapter, must first make application to and obtain from the State Engineer a permit to appropriate the water, pursuant to the provisions of chapter 533 of NRS relating to the appropriation of the public waters, before performing any work in connection with the boring or sinking of the well.

2. Upon written application and a showing of good cause, the State Engineer may issue a written waiver of the requirements of subsection 1:

(a) For exploratory wells to be drilled to determine the availability of water or the quality of available water;

(b) To allow temporary use of the water in constructing a highway or exploring for water, oil, gas, minerals or geothermal resources; or

(c) For wells to be drilled in shallow groundwater systems and pumped to alleviate potential hazards to persons and property resulting from the rise of groundwater caused by secondary recharge. If practical, approved by the State Engineer and consistent with this chapter and chapter 533 of NRS, the withdrawn water must be used for some other beneficial use.

3. In other basins or portions of basins which have not been designated by the State Engineer no application or permit to appropriate water is necessary until after the well is sunk or bored and water developed. Before any diversion of water may be made from the well, the appropriator must make application to and obtain from the State Engineer, pursuant to the provisions of chapter 533 of NRS, a permit to appropriate the water.

4. Upon written application and a showing of good cause, the State Engineer may issue a written waiver of the requirements of subsection 3, to allow temporary use of water in constructing a highway or exploring for water, oil, gas, minerals or geothermal resources.

5. Any person using water after a permit has been withdrawn, denied, cancelled, revoked or forfeited is guilty of a misdemeanor. Each day of violation of this subsection constitutes a separate offense and is separately punishable.

[6:178:1939; A 1943, 139; 1947, 52; 1949, 128; 1953, 190]—(NRS A 1957, 716; 1967, 1053; 1979, 183, 242; 1981, 659; 1983, 2090; 1985, 490; 1987, 1776; 1997, 1621; 2007, 842)

ADMINISTRATIVE REGULATIONS.
Drilling in designated areas, NAC 534.300
Drilling in undesignated areas, NAC 534.310
Waivers, NAC 534.440-534.450

FEDERAL AND OTHER CASES.

Appropriation by Federal Government on federal reservation not subject to state law. Federal reservations are not public lands, and the Federal Government need not comply with state laws governing appropriation of waters when appropriating waters on federal reservations, regardless of what the law may be concerning public lands. State ex rel. Shamberger v. United States, 165 F. Supp. 600 (D. Nev. 1958)

Immunity of Federal Government from compliance is result of supremacy of Federal Government. The supremacy of the Federal Government within the scope of its delegated powers makes it unnecessary for the Federal Government to comply with state laws governing appropriation of waters insofar as appropriation of waters on federal reservations is concerned. State ex rel. Shamberger v. United States, 165 F. Supp. 600 (D. Nev. 1958)

Immunity follows, under circumstances of case, from power of Federal Government relating to national defense. Provisions of the U.S. Constitution relating to national defense prevent the State of Nevada from requiring the Federal Government to comply with the laws of the state concerning appropriation of waters insofar as appropriation of waters on lands of the U.S. Naval Ammunition Depot in Mineral County is concerned. State ex rel. Shamberger v. United States, 165 F. Supp. 600 (D. Nev. 1958)

Absent consent to suit, action against Federal Government to compel compliance with chapter properly dismissed. An action filed by the State of Nevada in an effort to require the United States to comply with NRS 534.020-534.190 when appropriating water on lands over which jurisdiction had been ceded to the U.S. under NRS 328.260 was properly dismissed because the U.S. has not consented to be sued by a state for a declaration as to which sovereign is vested with control of appropriation of water for beneficial use by the U.S. on public lands withdrawn from entry. Nevada ex rel. Shamberger v. United States, 279 F.2d 699 (9th Cir. 1960)

NRS 534.060 Conditions for sinking wells; casings and appliances; repair of defective wells; liens; sealing of wells; use of abandoned wells to monitor groundwater.

1. During the sinking or boring of a well the permittee shall cause to be placed in the well a proper and sufficient casing approved by the State Engineer, so arranged as to prevent the caving in of the well and to prevent the escape of water therefrom through any intervening sand or gravel stratum, which casing must be of sufficient length to reach the deepest aquifer encountered during the sinking or boring of the well.

2. The number, size, type and distribution of perforations is optional with the permittee, except that no perforations may be made in a pipe tapping confined (artesian) water above the confining impervious materials.

3. The permittee shall provide the necessary valves, plugs or other appliances to prevent or control the flow of water from the well and prevent the loss of underground water above or below the ground surface.

4. If in the judgment of the State Engineer a well is in any manner defective the State Engineer may order the owner to repair the well or, in the discretion of the State Engineer, may cause the well to be repaired or sealed. If the State Engineer elects to repair or seal the well, the cost of repairing or sealing the well must be paid from the water distribution account and must not be charged to the owner of the well or be a lien on the land upon which the well is located or on other land of the owner to which water from the well is appurtenant.

5. If the State Engineer orders the owner to repair the well and if upon 15 days' written notice by registered or certified mail, return receipt requested, the owner fails to repair the well, the State Engineer or the assistants or authorized agents of the State Engineer may, without further notice, take such steps as may be necessary to effect such repairs. The cost thereof, including the labor and material, may in the first instance be paid by the State Engineer from the Water Distribution Revolving Account, but any such cost in any event is a lien on the land on which the well is located and, also, any other land possessed by the well owner to which the water from the well is appurtenant.

6. The State Engineer, or the assistants or authorized agents of the State Engineer, as the case may be, shall file an itemized and sworn statement, setting forth the date when the work was done and the nature of the labor so performed, with the board of county commissioners of the county wherein the charge and expense were incurred. The board of county commissioners shall thereupon present a bill for the expense to the person liable therefor under this section, and if that person neglects for 30 days thereafter to pay it, the bill and costs become a lien upon the lands and property of the person so liable for the payment of the bill, and must be collected as delinquent taxes against the lands and property are collected.

7. When a well is abandoned or about to be abandoned, the owner, in lieu of plugging the well, may advise the State Engineer and other interested hydrologic entities that the well is available to monitor the groundwater. If, in the opinion of the State Engineer, the well would be useful as a site for monitoring, the State Engineer may grant the owner a waiver of the requirement that the well be plugged.

8. The State Engineer may grant the owner of a well a waiver of the requirement that the well be plugged under circumstances other than those set forth in subsection 7. The State Engineer shall adopt regulations that provide a procedure by which the State Engineer may approve a waiver from the requirement of plugging an abandoned well pursuant to this subsection.

[7:178:1939; A 1947, 52; 1943 NCL § 7993.16]—(NRS A 1957, 717; 1961, 448; 1967, 192; 1979, 669; 1987, 1777; 2005, 455)

NRS CROSS REFERENCES.
Board of county commissioners includes Board of Supervisors of Carson City, NRS 0.035

ADMINISTRATIVE REGULATIONS.
Artesian conditions, NAC 534.378, 534.4363, 534.4375
Drilling, construction and plugging of wells and boreholes, NAC 534.360-534.4377
Waiver of requirement to plug well, NAC 534.449

NRS 534.070 Waste of water from artesian well unlawful.

1. No person controlling an artesian well in any basin in Nevada shall suffer the waters therefrom to flow to waste, unless, and as far as reasonably necessary in the judgment of the State Engineer, to prevent the obstruction thereof, or to flow or be taken therefrom except for beneficial purposes.

2. The owner of any artesian well from which water is being unnecessarily wasted shall be guilty of a misdemeanor.

[8:178:1939; A 1943, 139; 1947, 52; 1955, 328]—(NRS A 1957, 720)

NRS 534.080 Appropriation of underground water for beneficial use from artesian, definable aquifer or percolating water: Acquisition of rights under chapter 533 of NRS; orders to desist; dates of priority.

1. A legal right to appropriate underground water for beneficial use from an artesian or definable aquifer subsequent to March 22, 1913, or from percolating water, the course and boundaries of which are incapable of determination, subsequent to March 25, 1939, can only be acquired by complying with the provisions of chapter 533 of NRS pertaining to the appropriation of water.

2. The State Engineer may, upon written notice sent by registered or certified mail, return receipt requested, advise the owner of a well who is using water therefrom without a permit to appropriate the water to cease using the water until the owner has complied with the laws pertaining to the appropriation of water. If the owner fails to initiate proceedings to secure such a permit within 30 days after the date of the notice, the owner is guilty of a misdemeanor.

3. Except as otherwise provided in subsection 4 and NRS 534.180, the date of priority of all appropriations of water from an underground source mentioned in this section is the date when application is made in proper form and filed in the Office of the State Engineer pursuant to the provisions of chapter 533 of NRS.

4. The date of priority for the use of underground water from a well for domestic purposes where the draught does not exceed 2 acre-feet per year is the date of completion of the well as:

(a) Recorded by the well driller on the log the well driller files with the State Engineer pursuant to NRS 534.170; or

(b) Demonstrated through any other documentation or evidence specified by the State Engineer.

[9:178:1939; A 1947, 52; 1943 NCL § 7993.18]—(NRS A 1957, 718; 1967, 195; 2007, 843)

NEVADA CASES.

Cumulative effect of permits. In a proceeding to challenge the state engineer's denial of permits to divert underground water in a designated basin on the ground that existing rights would be impaired and public interest would suffer detriment, the supreme court affirmed the decision of district court that denial was supported by substantial evidence, rejecting the applicants' contention that a finding of impairment was based on the cumulative effect of granting all of the pending permits rather than on the sole granting of their permits. Under NRS 533.370, the state engineer had a duty to deny any permit which would impair existing rights or prove detrimental to public interest. (See also NRS 534.080 and 534.110.) Griffin v. Westergard, 96 Nev. 627, 615 P.2d 235 (1980)

Circumstances justifying denial. In a proceeding to challenge the state engineer's denial of permits to divert underground water in a designated basin, where: (1) the applicants had started drilling a well under valid permits but drilled only to hard rock at 420 feet and did not complete the drilling to the desired depth within the prescribed time limits despite a 1-year extension; (2) the state engineer cancelled the permits for failure to file timely proof of completion and beneficial use; (3) the applicants deepened the well to 500 feet after the permits had been cancelled; (4) the applicants alleged that the state engineer had indicated their applications for new permits would probably be approved if there were no protests, but the state engineer could not recall making any such statement; (5) the state engineer, after a public hearing on all pending applications in the basin, denied the permits on the ground that existing rights would be impaired and public interest would suffer detriment; and (6) the applicants contended that they had relied to their detriment (having expended a total of $16,000) on the alleged assurances that the permits would be granted, the supreme court affirmed district court's refusal to grant the applicants relief on the basis of equitable estoppel. The state engineer was prohibited by NRS 533.370 from granting any permits which would impair existing rights, and the court would not grant such permits on equitable grounds. (See also NRS 534.080 and 534.110.) Griffin v. Westergard, 96 Nev. 627, 615 P.2d 235 (1980)

FEDERAL AND OTHER CASES.

Absent consent to suit, action against Federal Government to compel compliance with chapter properly dismissed. An action filed by the State of Nevada in an effort to require the United States to comply with NRS 534.020-534.190 when appropriating water on lands over which jurisdiction had been ceded to the U.S. under NRS 328.260 was properly dismissed because the U.S. has not consented to be sued by a state for a declaration as to which sovereign is vested with control of appropriation of water for beneficial use by the U.S. on public lands withdrawn from entry. Nevada ex rel. Shamberger v. United States, 279 F.2d 699 (9th Cir. 1960)

NRS 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 right for which a certificate has been issued pursuant to NRS 533.425, 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. If the records of the State Engineer or any other documents specified by the State Engineer indicate at least 4 consecutive years, but less than 5 consecutive years, of nonuse of all or any part of 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 the owner 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 resumption of beneficial use is not filed in the Office of the State Engineer, the State Engineer shall, unless the State Engineer 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 groundwater, 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 the holder's failure to use all or any part of the water beneficially for the purpose for which the holder's 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;

(d) Any prolonged period in which precipitation in the basin where the water right is located is below the average for that basin or in which indexes that measure soil moisture show that a deficit in soil moisture has occurred in that basin;

(e) Whether a groundwater management plan has been approved for the basin pursuant to NRS 534.037; and

(f) 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 the State Engineer has granted or denied the holder's request for an extension pursuant to this subsection. If the State Engineer grants an extension pursuant to this subsection and, before the expiration of that extension, proof of resumption of beneficial use or another request for an extension is not filed in the Office of the State Engineer, the State Engineer shall declare the water right forfeited within 30 days after the expiration of the extension granted 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 after the date of the notice to use the water beneficially or apply for additional relief pursuant to subsection 2 before forfeiture of the owner's 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 groundwater 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 or her examination that an abandonment has taken place, the State Engineer shall so state in the 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.

[9a:178:1939; added 1947, 52; 1943 NCL § 7993.18a]—(NRS A 1967, 193, 1053; 1981, 1842; 1983, 1650; 1995, 1016; 2003, 651; 2007, 844; 2011, 504, 1384)

REVISER'S NOTE.

Ch. 113, Stats. 2011, which amended this section and clarified in subsection 1 that groundwater rights for which a certificate of beneficial use has been issued, instead of groundwater rights held under a permit, are subject to the forfeiture procedure, contains the following provision not included in NRS:

"The Legislature hereby declares that:

1. It has examined the past and present practice of the State Engineer with respect to the forfeiture of water rights on and after March 15, 1947, and finds that the State Engineer has applied the provisions of Nevada law relating to the forfeiture of water rights in a manner consistent with the provisions of subsection 1 of NRS 534.090, as amended by section 3 of this act.

2. The amendatory provisions of subsection 1 of section 3 of this act are intended to clarify rather than change the existing application of NRS 534.090 relating to the forfeiture of water rights and to promote thereby stability and consistency in the administration of chapters 533 and 534 of NRS."

NEVADA CASES.

Retroactive application of statute is constitutional, but forfeiture may be cured by a substantial use of the water right after the statutory period of nonuse. The amendment of NRS 534.090 in 1981, making the section apply retroactively to water rights present on April 15, 1967, with the effect being that nonuse of the water right for 5 successive years after that date causes forfeiture of that right to the extent of nonuse, was constitutional as a valid exercise of the police power of the State. However, the holder of the water right may cure forfeiture and revitalize the right by substantial use of the right after the statutory period of nonuse, so long as no claim or proceeding of forfeiture has begun. Town of Eureka v. State Engineer, 108 Nev. 163, 826 P.2d 948 (1992), cited, AGO 97-05 (2-11-1997), United States v. Alpine Land & Reservoir Co., 291 F.3d 1062, at 1076 (9th Cir. 2002), distinguished, Preferred Equities Corp. v. State Engineer, 119 Nev. 384, at 389, 75 P.3d 380 (2003)

Forfeiture period was not impliedly tolled. A corporation applied to the State Engineer to change the diversion point and usage of certain water rights. The State Engineer subsequently declared the water rights to be forfeited because the corporation had not used the water rights for a period exceeding 5 years. The corporation did not timely appeal the State Engineer's ruling of forfeiture. The corporation later argued that the provisions of NRS 533.040(2) impliedly tolled the forfeiture period and that it would have been wasteful of the corporation to continue to use the water while waiting for a decision from the State Engineer if the water in question could not be put to beneficial use. On appeal, the Supreme Court rejected the corporation's reading of NRS 533.040(2), holding that if the corporation was unable to make beneficial use of the water, the proper course of action would have been to: (1) request an extension pursuant to NRS 534.090(2); or (2) file a timely appeal after the State Engineer's ruling of forfeiture. Preferred Equities Corp. v. State Engineer, 119 Nev. 384, 75 P.3d 380 (2003)

Beneficial use as prerequisite to equitable relief. In certain instances the Nevada Supreme Court has determined that a holder of water rights is entitled to equitable relief from the termination of those rights, even where the holder has not timely filed an appeal (see NRS 533.450) from the State Engineer's termination decision. However, the preeminent public policy concern in Nevada regarding water rights is beneficial use (see NRS 533.035), and the court has not historically granted equitable relief to a holder of water rights who has not made beneficial use of those rights. (See also NRS ch. 533 and NRS 534.090.) Preferred Equities Corp. v. State Engineer, 119 Nev. 384, 75 P.3d 380 (2003)

Application to change diversion point of water was moot where applicant had already forfeited water rights in question. In a ruling dated December 20, 1996, the State Engineer declared that a corporation had forfeited certain water rights by failing to utilize those rights for a period exceeding 5 years. The forfeiture became final when the corporation failed to appeal the ruling within 30 days. The corporation subsequently sought independent judicial review of its previous application to change the diversion point and usage of the water rights (see NRS 533.345). As determined by the Supreme Court, the district court properly held that the corporation's application was moot because the corporation no longer owned the water rights in question. (See also NRS 534.090.) Preferred Equities Corp. v. State Engineer, 119 Nev. 384, 75 P.3d 380 (2003)

NRS 534.100 Recognition of existing water rights; classification of water in definable aquifer or percolating water by State Engineer; adjudication of vested underground water rights.

1. Existing water rights to the use of underground water are hereby recognized. For the purpose of this chapter a vested right is a water right on underground water acquired from an artesian or definable aquifer prior to March 22, 1913, and an underground water right on percolating water, the course and boundaries of which are incapable of determination, acquired prior to March 25, 1939. The distinction as to whether water is in a definable aquifer or

whether it is percolating water, the course and boundaries of which are incapable of determination, is a matter to be determined by the State Engineer.

2. Any claimant of a vested underground water right may petition the State Engineer to adjudicate such rights. If upon investigation the State Engineer finds the facts and conditions justify it, the State Engineer shall enter an order granting the petition and shall make proper arrangements to proceed with such determination. In the order the State Engineer shall designate the area within which such determination is to be made, but the size of such designated area may include other claimed underground vested water rights. Such designated area shall not extend into other drainage basins. Following the designation of such area the State Engineer shall proceed with adjudicating such rights as provided for in chapter 533 of NRS.

[9a:178:1939; added 1947, 52; 1943 NCL § 7993.18b]—(NRS A 1957, 718)

NRS 534.110 Rules and regulations of State Engineer; statements and pumping tests; conditions of appropriation; designation of critical management areas; restrictions.

1. The State Engineer shall administer this chapter and shall prescribe all necessary regulations within the terms of this chapter for its administration.

2. The State Engineer may:

(a) Require periodical statements of water elevations, water used, and acreage on which water was used from all holders of permits and claimants of vested rights.

(b) Upon his or her own initiation, conduct pumping tests to determine if overpumping is indicated, to determine the specific yield of the aquifers and to determine permeability characteristics.

3. The State Engineer shall determine whether there is unappropriated water in the area affected and may issue permits only if the determination is affirmative. The State Engineer may require each applicant to whom a permit is issued for a well:

(a) For municipal, quasi-municipal or industrial use; and

(b) Whose reasonably expected rate of diversion is one-half cubic foot per second or more,

➥ to report periodically to the State Engineer concerning the effect of that well on other previously existing wells that are located within 2,500 feet of the well.

4. It is a condition of each appropriation of groundwater acquired under this chapter that the right of the appropriator relates to a specific quantity of water and that the right must allow for a reasonable lowering of the static water level at the appropriator's point of diversion. In determining a reasonable lowering of the static water level in a particular area, the State Engineer shall consider the economics of pumping water for the general type of crops growing and may also consider the effect of using water on the economy of the area in general.

5. This section does not prevent the granting of permits to applicants later in time on the ground that the diversions under the proposed later appropriations may cause the water level to be lowered at the point of diversion of a prior appropriator, so long as any protectable interests in existing domestic wells as set forth in NRS 533.024 and the rights of holders of existing appropriations can be satisfied under such express conditions. At the time a permit is granted for a well:

(a) For municipal, quasi-municipal or industrial use; and

(b) Whose reasonably expected rate of diversion is one-half cubic foot per second or more,

➥ the State Engineer shall include as a condition of the permit that pumping water pursuant to the permit 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 effects.

6. Except as otherwise provided in subsection 7, the State Engineer shall conduct investigations in any basin or portion thereof where it appears that the average annual replenishment to the groundwater supply may not be adequate for the needs of all permittees and all vested-right claimants, and if the findings of the State Engineer so indicate, the State Engineer may order that withdrawals, including, without limitation, withdrawals from domestic wells, be restricted to conform to priority rights.

7. The State Engineer:

(a) May designate as a critical management area any basin in which withdrawals of groundwater consistently exceed the perennial yield of the basin.

(b) Shall designate as a critical management area any basin in which withdrawals of groundwater consistently exceed the perennial yield of the basin upon receipt of a petition for such a designation which is signed by a majority of the holders of certificates or permits to appropriate water in the basin that are on file in the Office of the State Engineer.

➥ The designation of a basin as a critical management area pursuant to this subsection may be appealed pursuant to NRS 533.450. If a basin has been designated as a critical management area for at least 10 consecutive years, the State Engineer shall order that withdrawals, including, without limitation, withdrawals from domestic wells, be restricted in that basin to conform to priority rights, unless a groundwater management plan has been approved for the basin pursuant to NRS 534.037.

8. In any basin or portion thereof in the State designated by the State Engineer, the State Engineer may restrict drilling of wells in any portion thereof if the State Engineer determines that additional wells would cause an undue interference with existing wells. Any order or decision of the State Engineer so restricting drilling of such wells may be reviewed by the district court of the county pursuant to NRS 533.450.

[10:178:1939; A 1947, 52; 1949, 128; 1955, 328]—(NRS A 1993, 2641; 2001, 553; 2011, 1385)

NRS CROSS REFERENCES.

Population defined, NRS 0.050

ADMINISTRATIVE REGULATIONS.

Regulations of State Engineer, NAC 534A.090-534A.160

Underground water and wells, NAC ch. 534

NEVADA CASES.

Cumulative effect of permits. In a proceeding to challenge the state engineer's denial of permits to divert underground water in a designated basin on the ground that existing rights would be impaired and public interest would suffer detriment, the supreme court affirmed the decision of district court that denial was supported by substantial evidence, rejecting the applicants' contention that a finding of impairment was based on the cumulative effect of granting all of the pending permits rather than on the sole granting of their permits. Under NRS 533.370, the state engineer had a duty to deny any permit which would impair existing rights or prove detrimental to public interest. (See also NRS 534.080 and 534.110.) Griffin v. Westergard, 96 Nev. 627, 615 P.2d 235 (1980)

Circumstances justifying denial. In a proceeding to challenge the state engineer's denial of permits to divert underground water in a designated basin, where: (1) the applicants had started drilling a well under valid permits but drilled only to hard rock at 420 feet and did not complete the drilling to the desired depth within the prescribed time limits despite a 1-year extension; (2) the state engineer cancelled the permits for failure to file timely proof of completion and beneficial use; (3) the applicants deepened the well to 500 feet after the permits had been cancelled; (4) the applicants alleged that the state engineer had indicated their applications for new permits would probably be approved if there were no protests, but the state engineer could not recall making any such statement; (5) the state engineer, after a public hearing on all pending applications in the basin, denied the permits on the ground that existing rights would be impaired and public interest would suffer detriment; and (6) the applicants contended that they had relied to their detriment (having expended a total of $16,000) on the alleged assurances that the permits would be granted, the supreme court affirmed district court's refusal to grant the applicants relief on the basis of equitable estoppel. The state engineer was prohibited by NRS 533.370 from granting any permits which would impair existing rights, and the court would not grant such permits on equitable grounds. (See also NRS 534.080 and 534.110.) Griffin v. Westergard, 96 Nev. 627, 615 P.2d 235 (1980)

FEDERAL AND OTHER CASES.

Absent consent to suit, action against Federal Government to compel compliance with chapter properly dismissed. An action filed by the State of Nevada in an effort to require the United States to comply with NRS 534.020-534.190 when appropriating water on lands over which jurisdiction had been ceded to the U.S. under NRS 328.260 was properly dismissed because the U.S. has not consented to be sued by a state for a declaration as to which sovereign is vested with control of appropriation of water for beneficial use by the U.S. on public lands withdrawn from entry. Nevada ex rel. Shamberger v. United States, 279 F.2d 699 (9th Cir. 1960)

ATTORNEY GENERAL'S OPINIONS.

State engineer may designate artesian basins under rulemaking power. Ch. 178, Stats. 1939 (cf. NRS 534.010-534.190) providing for administration of underground waters does not contain the full procedure for designating artesian basins, but the state engineer may adopt a procedure for designating the boundaries of the basins under the rulemaking power conferred by sec. 10, ch. 178, Stats. 1939 (cf. NRS 534.110). AGO B-29 (1-6-1941)

NRS 534.120 State Engineer authorized to make rules, regulations and orders when groundwater is being depleted in designated area; preferred uses of water; temporary permits to appropriate water; revocation of temporary permits; restrictions placed on certain wells.

1. Within an area that has been designated by the State Engineer, as provided for in this chapter, where, in the judgment of the State Engineer, the groundwater basin is being depleted, the State Engineer in his or her administrative capacity may 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 the State Engineer and from which the groundwater is being depleted, and in acting on applications to appropriate groundwater, the State Engineer 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 groundwater 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 groundwater for any use in areas served by such an entity.

(c) Limit the depth of domestic wells.

(d) Prohibit the drilling of wells for domestic use, as defined in NRS 534.013, 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.

(e) In connection with the approval of a parcel map in which any parcel is proposed to be served by a domestic well, require the dedication to a city or county or a designee of a city or county, or require a relinquishment to the State Engineer, of any right to appropriate water required by the State Engineer to ensure a sufficient supply of water for each of those parcels, unless the dedication of the right to appropriate water is required by a local ordinance.

4. The State Engineer may revoke a temporary permit issued pursuant to subsection 3 for residential use, and require a person to whom groundwater 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; and

(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.

5. The State Engineer may, in an area in which have been 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; and

(b) The deepening or repair of the well would require the use of a well-drilling rig.

6. For good and sufficient reasons, the State Engineer may exempt the provisions of this section with respect to public housing authorities.

7. The provisions of this section do not prohibit the State Engineer from revoking a temporary permit issued pursuant to this section if any parcel served by a well pursuant to the temporary permit is currently obtaining water from an entity such as a water district or a municipality engaged in furnishing water to the inhabitants of the area.

[10.5:178:1939; added 1955, 328]—(NRS A 1989, 1401; 1999, 3542; 2001, 555; 2003, 622, 624; 2007, 845)

NEVADA CASES.

Revocation of permit reviewable for abuse of discretion; remedy at law precludes equitable relief. Holders of temporary permits to appropriate groundwater were not entitled to equitable relief against an action of the state engineer revoking permits on the ground that completion of a pipeline enabled the water district to serve the affected area. Under the language of NRS 534.120, revocation of the permits was clearly a discretionary act which could be reviewed for abuse of discretion and, there being adequate remedy at law, district court was without authority to grant equitable relief. Las Vegas Valley Water Dist. v. Curtis Park Manor Water Users Ass'n, 98 Nev. 275, 646 P.2d 549 (1982), cited, State Eng'r v. Curtis Park Manor Water Users Ass'n, 101 Nev. 30, at 31, 692 P.2d 495 (1985), United States v. Alpine Land & Reservoir Co., 291 F.3d 1062, at 1077 (9th Cir. 2002), see also United States v. Alpine Land & Reservoir Co., 919 F. Supp. 1470, at 1474 (D. Nev. 1996)

No abuse of discretion in revocation of temporary permit. The state engineer did not abuse his discretion in revoking a temporary permit to appropriate groundwater pursuant to NRS 534.120, which authorizes the state engineer to revoke temporary permits when water can be furnished by an entity such as a water district or municipality, where the record indicated that the decision was based on availability of water from the local water district and its ability to service the affected area, and the permit contained an express provision that it was subject to revocation when water was available from that district. State Eng'r v. Curtis Park Manor Water Users Ass'n, 101 Nev. 30, 692 P.2d 495 (1985)

NRS 534.125 State Engineer to file notice related to temporary permit. If the State Engineer issues a temporary permit pursuant to NRS 534.120 or if a well for domestic use is drilled in an area in which the State Engineer has issued such a temporary permit, the State Engineer shall file a notice with the county recorder of the county in which the permit is issued or the well is drilled. The notice must include a statement indicating that, if and when water can be furnished by an entity such as a water district or a municipality engaged in furnishing water to the inhabitants of the designated area:

1. A temporary permit may be revoked;

2. The owner of a domestic well may be prohibited from deepening or repairing the well; and

3. The owner of the property served by the well may be required to connect to this water source at his or her own expense.

(Added to NRS by 1999, 3541)

NRS 534.130 State Engineer, assistants and Artesian Well Supervisor authorized to enter premises to investigate and carry out duties. The State Engineer, or the assistants or authorized agents of the State Engineer, and the Artesian Well Supervisor, or the assistants of the Artesian Well Supervisor, shall have the right to enter the premises of any owner or proprietor where any well mentioned in this chapter is situated at any reasonable hour of the day for the purpose of investigating and carrying out their duties in the administration of this chapter.

[11:178:1939; 1931 NCL § 7993.20]

NRS 534.140 Well drillers: Annual licenses; fees; continuing education; regulations for well drilling; licensing by State Contractors' Board.

1. Every well driller, before engaging in the physical drilling of a well in this State for development of water, must annually apply to the State Engineer for a license to drill.

2. The applications for those licenses and all licenses issued for the drilling of wells must be in the form prescribed by the State Engineer.

3. All well-drilling licenses expire on June 30 following their issuance and are not transferable.

4. A fee of $100 must accompany each application for a license and a fee of $50 must be paid each year for renewal of the license.

5. Those license fees must be accounted for in the State Engineer's Water License Account and used to pay costs pertaining to licensing, the adoption and enforcement of regulations for well drilling and the compensation of the members of the Well Drillers' Advisory Board and their expenses.

6. The State Engineer, after consulting with the Well Drillers' Advisory Board, shall adopt regulations relating to continuing education for well drillers.

7. The State Engineer shall prepare and keep on file in the Office of the State Engineer regulations for well drilling.

8. Before engaging in the physical drilling of a well in this State for the development of water, every well driller who is the owner of a well-drilling rig, or who has a well-drilling rig under lease or rental, or who has a contract to purchase a well-drilling rig, must obtain a license as a well driller from the State Contractors' Board.

[Part 7a:178:1939; added 1947, 52; A 1955, 328]—(NRS A 1957, 719; 1963, 797; 1979, 115 1983, 407; 1991, 63, 1785; 2005, 456)

ADMINISTRATIVE REGULATIONS.

Licenses, NAC 534.280-534.298
Regulations of State Engineer, NAC 534A.090-534A.160

NEVADA CASES.

Recovery on a contract not precluded by lack of license from the State Contractors' Board. Where a well driller sought money judgment on a contract for exploratory drilling for water and where neither experience, financial responsibility nor specific public detriment were at issue, the fact that, while a license from the State Engineer had been issued, no specialty license as a water-well driller from the State Contractors' Board had been issued under NRS 534.140 did not bar suit, pursuant to NRS 624.320, because the driller was licensed under NRS ch. 624 as an oil- and gas-well driller and substantially so under NRS ch. 534, a criminal penalty was the only sanction, NRS 534.190, under latter and nothing in the record suggested water-drilling techniques differed materially from oil- and gas-drilling techniques. Nevada Equities, Inc. v. Willard Pease Drilling Co., 84 Nev. 300, 440 P.2d 122 (1968), cited, Robken v. May, 84 Nev. 433, at 434, 442 P.2d 913 (1968), Martin Bloom Associates, Inc. v. Manzie, 389 F. Supp. 848, at 851 (1975), MGM Grand Hotel, Inc. v. Imperial Glass Co., 533 F.2d 486, at 489 (1976), Day v. West Coast Holdings, Inc., 101 Nev. 260, at 265, 699 P.2d 1067 (1985), Interstate Commercial Bldg. Servs., Inc. v. Bank of Amer., 23 F. Supp. 2d 1166 (D. Nev. 1998), see also Kourafas v. Basic Food Flavors, Inc., 120 Nev. 195, at 199, 88 P.3d 822 (2004), distinguished, Loomis v. Lange Fin. Corp., 109 Nev. 1121, at 1129, 865 P.2d 1161 (1993)

ATTORNEY GENERAL'S OPINIONS.

Board of county commissioners has authority to enact ordinances regulating the placement and testing of domestic wells, but only the state engineer may regulate the construction of such wells. A board of county commissioners, under its general police power (see NRS 244.357), power to regulate building and safety (see NRS 244.3675) and power to regulate planning and zoning (see NRS 278.020), has the power to enact ordinances regulating the placement and testing of domestic wells to promote health and safety. However, a board of county commissioners lacks authority to regulate the construction of domestic wells, as that power has been given to the state engineer through his authority to license and regulate well drillers (see NRS 534.140 and 534.160). AGO 97-19 (6-2-1997), cited, AGO 98-22 (8-7-1998)

NRS 534.142 Payment of child support: Statement by applicant for license to drill; grounds for denial of license; duty of State Engineer. [Effective until the date of the repeal of 42 U.S.C. § 666, the federal law requiring each state to establish procedures for withholding, suspending and restricting the professional, occupational and recreational licenses for child support arrearages and for noncompliance with certain processes relating to paternity or child support proceedings.]

1. An applicant for the issuance or renewal of a license to drill pursuant to NRS 534.140 shall submit to the State Engineer the statement prescribed by the Division of Welfare and Supportive Services of the Department of Health and Human Services pursuant to NRS 425.520. The statement must be completed and signed by the applicant.

2. The State Engineer shall include the statement required pursuant to subsection 1 in:

(a) The application or any other forms that must be submitted for the issuance or renewal of the license; or

(b) A separate form prescribed by the State Engineer.

3. A license to drill may not be issued or renewed by the State Engineer if the applicant:

(a) Fails to submit the statement required pursuant to subsection 1; or

(b) Indicates on the statement submitted pursuant to subsection 1 that the applicant is subject to a court order for the support of a child and is not in compliance with the order or a plan approved by the district attorney or other public agency enforcing the order for the repayment of the amount owed pursuant to the order.

4. If an applicant indicates on the statement submitted pursuant to subsection 1 that the applicant is subject to a court order for the support of a child and is not in compliance with the order or a plan approved by the district attorney or other public agency enforcing the order for the repayment of the amount owed pursuant to the order, the State Engineer shall advise the applicant to contact the district attorney or other public agency enforcing the order to determine the actions that the applicant may take to satisfy the arrearage.

(Added to NRS by 1997, 2088)

NRS 534.144 Suspension of license for failure to pay child support or comply with certain subpoenas or warrants; reinstatement of license. [Effective until the date of the repeal of 42 U.S.C. § 666, the federal law requiring each state to establish procedures for withholding, suspending and restricting the professional, occupational and recreational licenses for child support arrearages and for noncompliance with certain processes relating to paternity or child support proceedings.]

1. If the State Engineer receives a copy of a court order issued pursuant to NRS 425.540 that provides for the suspension of all professional, occupational and recreational licenses, certificates and permits issued to a person who is the holder of a license to drill issued pursuant to NRS 534.140, the State Engineer shall deem the license issued to that person to be suspended at the end of the 30th day after the date on which the court order was issued unless the State Engineer receives a letter issued to the holder of the license by the district attorney or other public agency pursuant to NRS 425.550 stating that the holder of the license has complied with the subpoena or warrant or has satisfied the arrearage pursuant to NRS 425.560.

2. The State Engineer shall reinstate a license to drill issued pursuant to NRS 534.140 that has been suspended by a district court pursuant to NRS 425.540 if the State Engineer receives a letter issued by the district attorney or other public agency pursuant to NRS 425.550 to the person whose license was suspended stating that the person whose license was suspended has complied with the subpoena or warrant or has satisfied the arrearage pursuant to NRS 425.560.

(Added to NRS by 1997, 2089)

NRS 534.146 Application for license to include social security number of applicant. [Effective until the date of the repeal of 42 U.S.C. § 666, the federal law requiring each state to establish procedures for withholding, suspending and restricting the professional, occupational and recreational licenses for child support arrearages and for noncompliance with certain processes relating to paternity or child support proceedings.] An application for the issuance of a license to drill pursuant to NRS 534.140 must include the social security number of the applicant.

(Added to NRS by 1997, 2089)

NRS 534.150 Well Drillers' Advisory Board: Appointment; terms of members; vacancies; compensation; duties.

1. For the purpose of examining applicants for well drillers' licenses, the State Engineer may appoint a Well Drillers' Advisory Board referred to in this section as the "Board." The Board may be on a regional or statewide basis.
2. In making the initial appointments, the State Engineer shall appoint members to staggered terms of 1, 2 and 3 years. After the initial terms, members shall serve for 3-year terms.
3. The State Engineer may fill vacancies on the Board.
4. Each member of the Board is entitled to receive $60 for each day and $30 for each half day spent doing the work of the Board. Any time spent by members of the Board in work or travel necessary to the discharge of their duties which is less than a full day but more than a half day must be treated for compensation as a full day. Any time less than a half day must be treated as a half day.
5. The purpose of the Board is to determine the qualifications of an applicant as a well driller and to submit its findings to the State Engineer.
6. Regulations of the Board on examining applicants for well drillers' licenses must be developed by the State Engineer in cooperation with the Board upon its creation.
7. If a hearing is held by the State Engineer to determine whether a licensed well driller is complying with the law or the regulations pertaining to well drilling, the State Engineer may avail himself or herself of the services of the Board in an advisory capacity.

[Part 7a:178:1939; added 1947, 52; A 1955, 328]—(NRS A 1963, 798; 1977, 1236; 1979, 793; 1981, 1986; 1985, 434)

NRS 534.160 License required to drill well; revocation of or refusal to reissue license; order to plug well; penalty for allowing unlicensed person to drill.

1. A person shall not drill a well for water in this State without having first obtained a well-drilling license.
2. Well drillers must comply with the regulations adopted by the State Engineer governing the drilling of water wells.
3. If the State Engineer determines, upon investigation and after hearing held upon at least 15 days' notice sent by registered or certified mail to the licensed well driller, that the well driller has failed to comply with the law or the required regulations, the State Engineer may revoke the license. The State Engineer may refuse to reissue a license to a well driller if the well driller has violated the law or the regulations.
4. The order revoking or refusing to reissue a license is final unless an action for review by the district court is filed pursuant to NRS 533.450.
5. The State Engineer shall order any person who drills a well without a license to plug that well. If the well is not plugged within 30 days after the order, the State Engineer shall plug the well at the expense of the person who owned or drilled the well.
6. If any licensed driller who owns, rents, leases or has a contract to purchase a well-drilling rig allows an unlicensed person to drill or perform any work in connection with well drilling, except under the supervision of the licensed driller, the license must be revoked or not reissued.

[Part 7a:178:1939; added 1947, 52; A 1955, 328]—(NRS A 1957, 719; 1969, 95; 1981, 360)

ADMINISTRATIVE REGULATIONS.
Drilling by nonlicensed person, NAC 534.432
Licenses, NAC 534.280-534.298

FEDERAL AND OTHER CASES.
Appropriation by the Federal Government on a federal reservation not subject to state law. Federal reservations are not public lands, and the Federal Government need not comply with state laws governing the appropriation of waters when appropriating waters on federal reservations, regardless of what the law may be concerning public lands. State ex rel. Shamberger v. United States, 165 F. Supp. 600 (D. Nev. 1958)

Immunity of the Federal Government from compliance is the result of the supremacy of the Federal Government. The supremacy of the Federal Government within the scope of its delegated powers makes it unnecessary for the Federal Government to comply with state laws governing the appropriation of waters insofar as the appropriation of waters on federal reservations is concerned. State ex rel. Shamberger v. United States, 165 F. Supp. 600 (D. Nev. 1958)

Immunity follows, under circumstances of case, from the power of the Federal Government relating to national defense. Provisions of the U.S. Constitution relating to national defense prevent the State of Nevada from requiring the Federal Government to comply with laws of the state concerning the appropriation of waters insofar as the appropriation of waters on lands of the U.S. Naval Ammunition Depot in Mineral County is concerned. State ex rel. Shamberger v. United States, 165 F. Supp. 600 (D. Nev. 1958)

ATTORNEY GENERAL'S OPINIONS.
Board of county commissioners has authority to enact ordinances regulating the placement and testing of domestic wells, but only the state engineer may regulate the construction of such wells. A board of county commissioners, under its general police power (see NRS 244.357), power to regulate building and safety (see NRS 244.3675) and power to regulate planning and zoning (see NRS 278.020), has the power to enact ordinances regulating the placement and testing of domestic wells to promote health and safety. However, a board of county commissioners lacks authority to regulate the construction of domestic wells, as that power has been given to the state engineer through his authority to license and regulate well drillers (see NRS 534.140 and 534.160). AGO 97-19 (6-2-1997), cited, AGO 98-22 (8-7-1998)

NRS 534.170 Well driller to keep log and records; contents; information to be furnished to State Engineer; report of test.

1. The well driller shall keep:

(a) A log of the depth, thickness and character of the different strata penetrated and the location of water-bearing strata; and

(b) An accurate record of the work, including:

(1) A statement of the date of beginning work;

(2) The date of completion;

(3) The length, size and weight of the casing and how it is placed;

(4) The size of the drilled hole;

(5) Where sealed off and the type of seal;

(6) The name of the well driller and the type of drilling machine used;

(7) The number of cubic feet per second or gallons per minute of flow from such well when completed; and

(8) The pressure in pounds per square inch if it is a flowing well, and, if nonflowing, the static water level, and the water temperature.

2. The well driller shall furnish a copy of the log and the record of work for every well drilled to the State Engineer within 30 days after the well is completed.

3. If the well is to be tested by pumping by the holder of the permit, the report of the test must include the drawdown with respect to the amount of water pumped and any additional information requested by the State Engineer. This information must be reported and verified on forms prescribed by the State Engineer. The report must be returned:

(a) Immediately following the completion of the test; or

(b) Within 30 days following the completion of the well,

➥ whichever occurs later.

4. The log, record of the work and report of the test are a permanent record in the Office of the State Engineer.

[Part 7a:178:1939; added 1947, 52; A 1955, 328]—(NRS A 1981, 1842)

ADMINISTRATIVE REGULATIONS.
Log and record of work, NAC 534.340, 534.345, 534.4351
Regulations of State Engineer, NAC 534A.090-534A.160

NRS 534.180 Applicability of chapter to wells used for domestic purposes; registration and plugging of wells used for domestic purposes; wells for accessory dwelling unit of single-family dwelling.

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 2 acre-feet per year.

2. The State Engineer may designate any groundwater 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.

4. If the development and use of underground water from a well for an accessory dwelling unit of a single-family dwelling, as defined in an applicable local ordinance, qualifies as a domestic use or domestic purpose:

(a) The owner of the well shall:

(1) Obtain approval for that use or purpose from the local governing body or planning commission in whose jurisdiction the well is located;

(2) Install a water meter capable of measuring the total withdrawal of water from the well; and

(3) Ensure the total withdrawal of water from the well does not exceed 2 acre-feet per year;

(b) The local governing body or planning commission shall report the approval of the accessory dwelling unit on a form provided by the State Engineer;

(c) The State Engineer shall monitor the annual withdrawal of water from the well; and

(d) The date of priority for the use of the domestic well to supply water to the accessory dwelling unit is the date of approval of the accessory dwelling unit by the local governing body or planning commission.

[3:178:1939; A 1947, 52; 1949, 128; 1955, 328]—(NRS A 1971, 868; 1977, 383; 1981, 1843; 1983, 2090; 1985, 1302; 1997, 2010; 2007, 846)

ADMINISTRATIVE REGULATIONS.
Wells for domestic use, NAC 534.315

NRS 534.185 Waiver of certain requirements for domestic wells by State Engineer; exceptions.

1. The State Engineer shall, upon written request and receipt of a written agreement between the affected property owners, waive the requirements of this chapter regarding permits for the use and development of underground water from a well if:

(a) The well existed on July 1, 1983;

(b) It is used solely for domestic purposes by not more than three single-family dwellings; and

(c) Each of those dwellings does not draw more than 2 acre-feet of water per year.

2. The State Engineer may require an owner who has been granted such a waiver to apply for a permit if one or more of the dwellings is drawing more than 2 acre-feet of water per year.

3. This section does not apply to any groundwater basin for which the State Engineer has in effect on July 1, 1983, a procedure of issuing revocable permits.

(Added to NRS by 1983, 1674; A 2007, 847)

NRS 534.190 Penalties. Any person violating any of the provisions of NRS 534.010 to 534.180, inclusive, shall be guilty of a misdemeanor.

[12:178:1939; A 1947, 52; 1943 NCL § 7993.21]—(NRS A 1967, 610)

NEVADA CASES.

Well driller "substantially" licensed under chapter not precluded from recovering on contract; criminal penalty only sanction. Where a well driller sought money judgment on a contract for exploratory drilling for water and where neither experience, financial responsibility nor specific public detriment were at issue, the fact that, while a license from the State Engineer had been issued, no specialty license as a water-well driller from the State Contractors' Board had been issued under NRS 534.140 did not bar suit, pursuant to NRS 624.320, because the driller was licensed under NRS ch. 624 as an oil- and gas-well driller and substantially so under NRS ch. 534, a criminal penalty was the only sanction, NRS 534.190, under latter and nothing in the record suggested water-drilling techniques differed materially from oil- and gas-drilling techniques. Nevada Equities, Inc. v. Willard Pease Drilling Co., 84 Nev. 300, 440 P.2d 122 (1968), cited, Robken v. May, 84 Nev. 433, at 434, 442 P.2d 913 (1968), Martin Bloom Associates, Inc. v. Manzie, 389 F. Supp. 848, at 851 (1975), MGM Grand Hotel, Inc. v. Imperial Glass Co., 533 F.2d 486, at 489 (1976), Day v. West Coast Holdings, Inc., 101 Nev. 260, at 265, 699 P.2d 1067 (1985), Interstate Commercial Bldg. Servs., Inc. v. Bank of Amer., 23 F. Supp. 2d 1166, at 1173 (D. Nev. 1998), see also Kourafas v. Basic Food Flavors, Inc., 120 Nev. 195, at 199, 88 P.3d 822 (2004), distinguished, Loomis v. Lange Fin. Corp., 109 Nev. 1121, at 1129, 865 P.2d 1161 (1993)

NRS 534.193 Additional penalties.

1. Except as otherwise provided in NRS 534.280, 534.310 and 534.330 and in addition to any other penalty provided by law, the State Engineer may, after notice and opportunity for a hearing, require a person who violates any provision of this chapter or any permit, order or decision issued or regulation adopted by the State Engineer pursuant to this chapter or NRS 532.120 to:

(a) Pay an administrative fine not to exceed $10,000 per day for each violation as determined by the State Engineer.

(b) In the case of an unlawful waste of water in violation of NRS 534.070 or any other violation of this chapter that, as determined by the State Engineer, results in an unlawful use, waste or diversion of water, replace not more than 200 percent of the water used, wasted or diverted.

2. In determining violations of this chapter relating to the unauthorized use of water yielded from a well that is used pursuant to a permit issued by the State Engineer and that has 16 or fewer connections, the State Engineer has the burden of proving which user is withdrawing water in excess of the portion of water allotted to the connection of that user. The State Engineer may require any or all users of the well to install and maintain, at their own expense, a meter that measures the amount of water withdrawn from the well by each connection.

3. If an administrative fine is imposed against a person pursuant to subsection 1 or the person is ordered to replace any water pursuant to that subsection, the State Engineer may require the person to pay the costs of the proceeding, including investigative costs and attorney's fees.

4. An order imposing an administrative fine or requiring the replacement of water or payment of costs or fees pursuant to this section may be reviewed by a district court pursuant to NRS 533.450.

(Added to NRS by 2007, 2020)

REVISER'S NOTE.

Ch. 429, Stats. 2007, the source of this section, contains the following provisions not included in NRS:

"Sec. 16. The State Engineer shall, in adopting regulations to carry out the amendatory provisions of sections 1, 3, 4, 4.5, 7, 8, 10, 11, 12, 14 and 15 of this act [NRS 532.120, 533.481, 533.482, 533.0245, 534.193, 534.195, 535.200, 535.210, 535.100, 536.200 and 536.210, respectively]:

1. Consider establishing a minimum threshold amount of water that a user of water would be required to exceed in using, wasting or diverting water in an unlawful manner before an administrative penalty would be imposed;

2. Comply with the provisions of chapter 233B of NRS;

3. Consider waiving an administrative penalty for a violation if the violator has, in the determination of the State Engineer, made significant progress toward correcting the violation; and

4. In addition to the requirements of subsection 1, consider waiving an administrative penalty in the case of an unauthorized use or willful waste of water in violation of NRS 533.460 or an unlawful diversion of water in violation of [former] NRS 533.530 [cf. NRS 533.463], if the amount of water so used or wasted does not exceed 2 acre-feet per annum.

Sec. 17. The State Engineer shall, on or before January 1, 2009, submit to the Director of the Legislative Counsel Bureau a written report detailing the efforts and progress of the State Engineer in developing and adopting regulations to carry out the amendatory provisions of this act.

Sec. 18. The State Engineer shall not, before July 1, 2009, impose an administrative penalty pursuant to the amendatory provisions of this act or any regulations adopted to carry out the amendatory provisions of this act."

ADMINISTRATIVE REGULATIONS.

Additional penalties—
Administrative fines, enforcement costs and cost of compliance, NAC 532.210
Order to replace water, NAC 532.220

NRS 534.195 Injunctive and other relief.

1. The State Engineer may seek injunctive relief in the appropriate court to prevent the continuance or occurrence of any act or practice which violates any provision of this chapter, or any permit, order or decision issued or regulation adopted by the State Engineer pursuant to this chapter or NRS 532.120.

2. On a showing by the State Engineer that a person is engaged, or is about to engage, in any act or practice which violates or will violate any provision of this chapter, or any permit, order or decision issued or regulation adopted by the State Engineer pursuant to this chapter or NRS 532.120, the court may issue, without a bond, any prohibitory or mandatory injunction that the facts may warrant, including a temporary restraining order issued ex parte or, after notice and hearing, a preliminary or permanent injunction.

3. Failure to establish lack of an adequate remedy at law or irreparable harm is not a ground for denying a request for a temporary restraining order or injunction.

4. The court may require the posting of a sufficient performance bond or other security to ensure compliance with the court order within the period prescribed.

5. Any proceeding conducted or injunction or order issued pursuant to this section is in addition to, and not in lieu of, any other penalty or remedy available for a violation of this chapter.

(Added to NRS by 2007, 2021)

REVISER'S NOTE.

Ch. 429, Stats. 2007, the source of this section, contains the following provisions not included in NRS:

"Sec. 16. The State Engineer shall, in adopting regulations to carry out the amendatory provisions of sections 1, 3, 4, 4.5, 7, 8, 10, 11, 12, 14 and 15 of this act [NRS 532.120, 533.481, 533.482, 533.0245, 534.193, 534.195, 535.200, 535.210, 535.100, 536.200 and 536.210, respectively]:

1. Consider establishing a minimum threshold amount of water that a user of water would be required to exceed in using, wasting or diverting water in an unlawful manner before an administrative penalty would be imposed;

2. Comply with the provisions of chapter 233B of NRS;

3. Consider waiving an administrative penalty for a violation if the violator has, in the determination of the State Engineer, made significant progress toward correcting the violation; and

4. In addition to the requirements of subsection 1, consider waiving an administrative penalty in the case of an unauthorized use or willful waste of water in violation of NRS 533.460 or an unlawful diversion of water in violation of [former] NRS 533.530 [cf. NRS 533.463], if the amount of water so used or wasted does not exceed 2 acre-feet per annum.

Sec. 17. The State Engineer shall, on or before January 1, 2009, submit to the Director of the Legislative Counsel Bureau a written report detailing the efforts and progress of the State Engineer in developing and adopting regulations to carry out the amendatory provisions of this act.

Sec. 18. The State Engineer shall not, before July 1, 2009, impose an administrative penalty pursuant to the amendatory provisions of this act or any regulations adopted to carry out the amendatory provisions of this act."

NRS 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 the State Engineer 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, groundwater basin or groundwater 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 or her 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.

(Added to NRS by 1987, 1771)

NRS 534.260 Project for recharge, storage and recovery of water: Contents of application for permit. The State Engineer shall prescribe and furnish guidelines for an application for a permit for a project. The application must include:

1. A fee for application of $2,500;
2. The name and mailing address of the applicant;
3. The name of the area of active management, groundwater basin or groundwater sub-basin, as applicable, in which the applicant proposes to operate the project;
4. The name and mailing address of the owner of the land on which the applicant proposes to operate the project;
5. The legal description of the location of the proposed project;
6. Such evidence of financial and technical capability as the State Engineer requires;
7. The source, quality and annual quantity of water proposed to be recharged, and the quality of the receiving water;
8. The legal basis for acquiring and using the water proposed to be recharged;
9. A description of the proposed project including its capacity and plan of operation;
10. A copy of a study that demonstrates:

(a) The area of hydrologic effect of the project;
(b) That the project is hydrologically feasible;
(c) That the project will not cause harm to users of land and water within the area of hydrologic effect; and
(d) The percentage of recoverable water;

11. The proposed duration of the permit; and
12. Any other information which the State Engineer requires.

(Added to NRS by 1987, 1771)

NRS 534.270 Project for recharge, storage and recovery of water: Review of application for permit; notice of application; protests; hearing; determination; judicial review.

1. Upon receipt of an application for a permit to operate a project, the State Engineer shall endorse on the application the date it was received and keep a record of the application. The State Engineer shall conduct an initial review of the application within 45 days after receipt of the application. If the State Engineer determines in the initial review that the application is incomplete, the State Engineer shall notify the applicant. The application is incomplete until the applicant files all the information requested in the application. The State Engineer shall determine whether the application is correct within 180 days after receipt of a complete application. The State Engineer may request additional information from the applicant. The State Engineer may conduct such independent investigations as are necessary to determine whether the application should be approved or rejected.

2. If the application is determined to be complete and correct, the State Engineer, within 30 days after such a determination or a longer period if requested by the applicant, shall cause notice of the application to be given once each week for 2 consecutive weeks in a newspaper of general circulation in the county or counties in which persons reside who could reasonably be expected to be affected by the project. The notice must state:

(a) The legal description of the location of the proposed project;
(b) A brief description of the proposed project including its capacity;
(c) That any person who may be adversely affected by the project may file a written protest with the State Engineer within 30 days after the last publication of the notice;
(d) The date of the last publication;
(e) That the grounds for protesting the project are limited to whether the project would be in compliance with subsection 2 of NRS 534.250;
(f) The name of the applicant; and
(g) That a protest must:
  (1) State the name and mailing address of the protester;
  (2) Clearly set forth the reason why the permit should not be issued; and

(3) Be signed by the protester or the protester's agent or attorney or, if the protester is a government, governmental agency or political subdivision of a government, be approved and signed in the manner specified in paragraph (g) of subsection 3.

3. A protest to a proposed project:

(a) May be made by any person who may be adversely affected by the project;

(b) Must be in writing;

(c) Must be filed with the State Engineer within 30 days after the last publication of the notice;

(d) Must be upon a ground listed in subsection 2 of NRS 534.250;

(e) Must state the name and mailing address of the protester;

(f) Must clearly set forth the reason why the permit should not be issued; and

(g) Except as otherwise provided in this paragraph, must be signed by the protester or the protester's agent or attorney. If the protester is a government, governmental agency or political subdivision of a government, the protest must be:

(1) Except as otherwise provided in subparagraph (2), approved and signed by the director, administrator, chief, head or other person in charge of the government, governmental agency or political subdivision; or

(2) If the governmental agency or political subdivision is a division or other part of a department, approved and signed by the director or other person in charge of that department in this State, including, without limitation:

(I) The Regional Forester for the Intermountain Region, if the protest is filed by the United States Forest Service;

(II) The State Director of the Nevada State Office of the Bureau of Land Management, if the protest is filed by the Bureau of Land Management;

(III) The Regional Director of the Pacific Southwest Region, if the protest is filed by the United States Fish and Wildlife Service;

(IV) The Regional Director of the Pacific West Region, if the protest is filed by the National Park Service;

(V) The Director of the State Department of Conservation and Natural Resources, if the protest is filed by any division of that Department; or

(VI) The chair of the board of county commissioners, if the protest is filed by a county.

4. Upon receipt of a protest, the State Engineer shall advise the applicant by certified mail that a protest has been filed.

5. Upon receipt of a protest, or upon the motion of the State Engineer, the State Engineer may hold a hearing. Not less than 30 days before the hearing, the State Engineer shall send by certified mail notice of the hearing to the applicant and any person who filed a protest.

6. The State Engineer shall either approve or deny each application within 1 year after the final date for filing a protest, unless the State Engineer has received a written request from the applicant to postpone making a decision or, in the case of a protested application, from both the protester and the applicant. The State Engineer may delay action on the application pursuant to paragraph (d) of subsection 4 of NRS 533.370.

7. Any person aggrieved by any decision of the State Engineer made pursuant to subsection 6 may appeal that decision to the district court pursuant to NRS 533.450.

(Added to NRS by 1987, 1772; A 2003, 2983; 2011, 761, 3507)

NRS 534.280 Project for recharge, storage and recovery of water: Annual report to State Engineer.

1. Any person who holds a permit for a project must compile and file with the State Engineer annual reports which define the operation of the project and provide such information as the State Engineer requires.

2. Each report must contain either a sworn statement or a certification, under penalty of perjury, that the information contained in the report is true and correct according to the best belief and knowledge of the person filing the report.

3. The annual report must be maintained on a calendar-year basis for the preceding calendar year. If a person who is required to file an annual report under this section fails to file a report when due, the State Engineer may assess and collect a penalty of $500 for each month or portion of a month that the annual report is delinquent. The total penalty assessed under this subsection must not exceed $5,000.

4. The records and reports required to be kept and filed pursuant to this section must be in such form as the State Engineer prescribes.

(Added to NRS by 1987, 1773)

NRS 534.290 Project for recharge, storage and recovery of water: Permit for recovery well; recovery limited to designated wells; designation of person entitled to recover water; use or exchange of recovered water.

1. A permit for a recovery well must comply with the requirements of this chapter and chapter 533 of NRS.

2. The holder of a permit for a project may recover water stored pursuant to the permit only from wells designated by the holder and approved by the State Engineer, located within the area of hydrologic effect of the project as determined by the State Engineer.

3. The person entitled to recover the water must be designated by the holder of the permit and approved by the State Engineer.

4. The holder of a permit for a project and a permit for a recovery well may use or exchange water recovered pursuant to those permits only in the manner in which it was permissible for him or her to use that water before it was stored.

(Added to NRS by 1987, 1774)

NRS 534.300 Project for recharge, storage and recovery of water: Storage account to be established; limit on amount of water recovered.

1. The State Engineer shall establish a storage account for each project for which the State Engineer has issued a permit. If the project stores water from more than one source, the State Engineer shall establish subaccounts for each source of water.

2. The holder of a permit for a project may recover only the recoverable amount of water that is stored by the project.

3. For the purposes of this section, "recoverable amount" means the amount of water, as determined by the State Engineer, that has reached the aquifer and remains within the area of active management.

(Added to NRS by 1987, 1774)

NRS 534.310 Project for recharge, storage and recovery of water: Annual fee for permit; disposition of money received by State Engineer; employment of consultants by State Engineer.

1. The State Engineer shall levy and collect an annual fee from each person who holds a permit for a project. The State Engineer shall establish the amount of the fee for the following year not later than October 1 of each year.

2. Within 30 days after the State Engineer sets the fee, the State Engineer shall mail written notice of the fee to all holders of permits.

3. The fee must be paid to the State Engineer at the time the person holding a permit files an annual report. If a person who is required to pay a fee fails to pay the fee when due, the State Engineer may assess and collect a penalty of 10 percent of the unpaid fee, without compounding, for each month or portion of a month that the fee is delinquent. The total penalty assessed must not exceed 60 percent of the unpaid fee.

4. Money received by the State Engineer pursuant to this section, subsection 1 of NRS 534.260 and subsection 3 of NRS 534.280 must be deposited with the State Treasurer for credit to the Account for Projects for Recharge, Underground Storage and Recovery of Water in the State General Fund. The interest and income earned on the money in the Account, after

deducting any applicable charges, must be credited to the Account. Money in the Account must only be used for the administration of this chapter.

5. The State Engineer may employ special consultants to assist the State Engineer in fulfilling his or her responsibilities pursuant to this chapter.

(Added to NRS by 1987, 1774; A 1989, 288)

NRS 534.320 Project for recharge, storage and recovery of water: Revocation or suspension of permit; orders to cease and desist; injunction.

1. The State Engineer may periodically review a project to determine if the holder of the permit is complying with the terms and conditions of the permit and the public interest is properly guarded. The State Engineer may permanently revoke or temporarily suspend the permit for good cause after an investigation and a hearing. Notice must be sent to the holder of the permit at least 15 days before the hearing, by registered or certified mail, that the holder has failed to comply with this chapter. In determining whether to revoke or suspend a permit, the State Engineer shall consider uses of land and water which were not in existence when the permit was issued.

2. Except as otherwise provided in subsection 3, if the State Engineer has reason to believe that a person is violating or has violated a provision of this chapter or a permit issued or regulation adopted pursuant to this chapter, the State Engineer may issue a written notice that the person must appear and show cause, at a hearing before the State Engineer not less than 15 days after the receipt of the notice, why the person should not be ordered to cease and desist from the violation. The notice must inform the person of the date, time and place of the hearing and the consequences of failure to appear.

3. If the State Engineer finds that a person is constructing or operating a project in violation of this chapter, the State Engineer may issue a temporary order for the person to cease and desist the construction pending final action by the State Engineer pursuant to subsection 4. The order must include written notice to the person of the date, time and place where the person must appear at a hearing before the State Engineer to show cause why the temporary order should be vacated. The hearing must be held not less than 15 days after the date of the order.

4. After a hearing pursuant to subsection 2 or 3, or after the expiration of the time to appear, the State Engineer shall issue a decision and order. The decision and order may take such 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. The person affected may appeal the decision to the district court pursuant to NRS 533.450.

5. If the person continues the violation after the State Engineer has issued a final decision and order pursuant to subsection 4 or a temporary order pursuant to subsection 3, 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 the violator.

(Added to NRS by 1987, 1774)

NRS 534.330 Project for recharge, storage and recovery of water: Penalties.

1. A person who is determined pursuant to NRS 534.320 to be in violation of this chapter or a permit issued or regulation adopted pursuant to this chapter may be assessed a civil penalty in an amount not exceeding:

(a) One hundred dollars per day of violation not directly related to illegal recovery or use of stored water; or

(b) Ten thousand dollars per day of violation directly related to illegal recovery or use of stored water.

2. An action to recover penalties pursuant to this section must be brought by the State Engineer in the district court in the county in which the violation occurred.

(Added to NRS by 1987, 1775)

NRS 534.340 Project for recharge, storage and recovery of water: Designation of areas of active management. The State Engineer shall designate areas of active management pursuant to NRS 534.030.

(Added to NRS by 1987, 1776)

NRS 534.350 Requirements for certain public water system to receive credits for addition of new customers to system.

1. A public water system may receive credits, as provided in this section, for the addition of new customers to the system. The granting of a credit pursuant to this section must be limited to public water systems in areas:

(a) Designated as groundwater basins by the State Engineer pursuant to the provisions of NRS 534.030; and

(b) For which the State Engineer has issued an order for granting a credit pursuant to this section.

2. A public water system which provides service in a groundwater basin is entitled to receive a credit for each customer who is added to the system and:

(a) Voluntarily ceases to draw water from a domestic well located within that basin; or

(b) Is the owner of a lot or other parcel of land, other than land used or intended solely for use as a location for a domestic well, which:

(1) Is located within that basin;

(2) Was established as a separate lot or parcel before July 1, 1993;

(3) Was approved by a local governing body or planning commission for service by an individual domestic well before July 1, 1993; and

(4) Is subject to a written agreement which was voluntarily entered into by the owner with the public water system pursuant to which the owner agrees not to drill a domestic well on the land and the public water system agrees that it will provide water service to the land. Any such agreement must be acknowledged and recorded in the same manner as conveyances affecting real property are required to be acknowledged and recorded pursuant to chapter 111 of NRS.

3. If a county requires, by ordinance, the dedication to the county of a right to appropriate water from a domestic well which is located on a lot or other parcel of land that was established as a separate lot or parcel on or after July 1, 1993, the county may, by relinquishment to the State Engineer, allow the right to appropriate water to revert to the source of the water. The State Engineer shall not accept a relinquishment of a right to appropriate water pursuant to this subsection unless the right is in good standing as determined by the State Engineer. A right to appropriate water that is dedicated and relinquished pursuant to this subsection:

(a) Remains appurtenant only to the parcel of land in which it is located as specified on the parcel map; and

(b) Maintains its date of priority established pursuant to NRS 534.080.

4. If an owner of a parcel of land specified in subsection 3 becomes a new customer of a public water system for that parcel of land, the public water system is entitled to receive a credit in the same manner as the addition of any other customer to the public water system pursuant to this section.

5. The State Engineer may require a new customer, who voluntarily ceases to draw water from a domestic well as provided in paragraph (a) of subsection 2 or whose right to appropriate water is dedicated pursuant to subsection 3, to plug that well.

6. A credit granted pursuant to this section:

(a) Must be sufficient to enable the public water system to add one service connection for a single-family dwelling to the system, except that the credit may not exceed the increase in water consumption attributable to the additional service connection or 2 acre-feet per year, whichever is less.

(b) May not be converted to an appropriative water right.

7. This section does not:

(a) Require a public water system to extend its service area.

(b) Authorize any increase in the total amount of groundwater pumped in a groundwater basin.

(c) Affect any rights of an owner of a domestic well who does not voluntarily comply with the provisions of this section.

8. As used in this section:

(a) "Domestic well" means a well used for culinary and household purposes in:

(1) A single-family dwelling; and

(2) An accessory dwelling unit for a single-family dwelling if provided for in an applicable local ordinance,

➥ including the watering of a garden, lawn and domestic animals and where the draught does not exceed 2 acre-feet per year.

(b) "Public water system" has the meaning ascribed to it in NRS 445A.840.

(Added to NRS by 1993, 1154; A 2007, 847; 2011, 505)

NRS 534.360 Water Rights Technical Support Account: Creation; administration; uses.

1. There is hereby created in the State General Fund an account designated as the Water Rights Technical Support Account. The Account must be administered by the Board for Financing Water Projects.

2. The Water Rights Technical Support Account is a continuing account without reversion. Money in the Account must be invested as the money in other state accounts is invested. The interest and income earned on the money in the Account, after deducting any applicable charges, must be credited to the Account. Claims against the Account must be paid as other claims against the State are paid.

3. The Board for Financing Water Projects may accept gifts, grants and donations from any source for deposit in the Water Rights Technical Support Account.

4. Except as otherwise provided in subsection 5, money in the Water Rights Technical Support Account must be used by the Board for Financing Water Projects only to make grants to a local government to:

(a) Obtain and provide expert and technical assistance to gather data to protect its existing water rights; or

(b) Fund projects to enhance or protect its existing water rights.

5. Any grant of money from the Water Rights Technical Support Account must not be used by a local government to pay for any assistance or projects as set forth in subsection 4 if the only purpose of the assistance or project is to obtain evidence, including, without limitation, technical evidence and oral testimony or to pay for expert witnesses or attorney's fees for or in anticipation of any administrative or judicial proceeding, including, without limitation, hearings before the State Engineer or in any state or federal court.

(Added to NRS by 2005, 2565; A 2011, 450)

CHAPTER 534A

GEOTHERMAL RESOURCES

NRS 534A.010	"Geothermal resource" defined.
NRS 534A.031	Exploration and subsurface information: Filing with Division of Minerals of Commission on Mineral Resources; confidentiality; release to State Engineer or other agency.
NRS 534A.040	Applicability of procedures for appropriation.
NRS 534A.050	Ownership of geothermal resources.
NRS 534A.060	Permit required to drill or operate geothermal well or drill exploratory well; application.
NRS 534A.070	Approval or rejection of application for permit to drill exploratory well; review of application for permit to drill or operate geothermal well; hearing; conditions.
NRS 534A.080	Fees; use of money.
NRS 534A.090	Regulations of Commission on Mineral Resources.

CHAPTER 534A

GEOTHERMAL RESOURCES

CROSS REFERENCES

Administrative Procedure Act, NRS ch. 233B
Energy policy, NRS ch. 701
Lease of state lands, NRS 322.005-322.040
Qualified energy systems, property tax exemption, NRS 701A.200
Renewable energy facilities, tax incentives, NRS 701A.300-701A.390
Sale of geothermal energy, regulation, NRS 704.669
Tax on net proceeds of minerals, NRS 362.100-362.240

NRS 534A.010 "Geothermal resource" defined. As used in this chapter, unless the context otherwise requires, "geothermal resource" means the natural heat of the earth and the energy associated with that natural heat, pressure and all dissolved or entrained minerals that may be obtained from the medium used to transfer that heat, but excluding hydrocarbons and helium.

(Added to NRS by 1975, 611; A 1977, 1172; 1981, 659)

NRS 534A.031 Exploration and subsurface information: Filing with Division of Minerals of Commission on Mineral Resources; confidentiality; release to State Engineer or other agency. Any exploration and subsurface information obtained as a result of a geothermal project must be filed with the Division of Minerals of the Commission on Mineral Resources within 30 days after it is accumulated. The information is confidential for 5 years after the date of filing and may not be disclosed during that time without the express written consent of the operator of the project, except that it must be made available by the Division to the State Engineer or any other agency of the State upon request. The State Engineer or other agency shall keep the information confidential.

(Added to NRS by 1977, 383; A 1985, 1303; 1993, 1701; 1999, 3633)

NRS 534A.040 Applicability of procedures for appropriation. A consumptive use of water brought to the surface outside of a geothermal well is subject to the appropriation procedures of chapters 533 and 534 of NRS, except for:

1. Water that is removed from an aquifer or geothermal reservoir to develop and obtain geothermal resources if the water is returned to or reinjected into the same aquifer or reservoir; or
2. The reasonable loss of water:

(a) During a test of a geothermal well; or

(b) From the temporary failure of all or part of a system that removes water from an aquifer or geothermal reservoir, transfers the heat from that water and reinjects that water into the same aquifer or reservoir.

(Added to NRS by 1975, 611; A 1983, 2091; 1985, 1303; 1997, 284)

NRS 534A.050 Ownership of geothermal resources. The owner of real property owns the rights to the underlying geothermal resources unless they have been reserved by or conveyed to another person.

(Added to NRS by 1983, 2091)

NRS 534A.060 Permit required to drill or operate geothermal well or drill exploratory well; application.

1. A person may not drill or operate a geothermal well or drill an exploratory well without obtaining a permit from the Administrator of the Division of Minerals of the Commission on Mineral Resources and complying with the conditions of the permit.
2. An application must set forth such information as the Administrator requires by regulation.

(Added to NRS by 1983, 2091; A 1985, 1303; 1993, 1701; 1999, 3633)

ADMINISTRATIVE REGULATIONS.

Permits, fees and other requirements for drilling, NAC 534A.190-534A.360

NRS 534A.070 Approval or rejection of application for permit to drill exploratory well; review of application for permit to drill or operate geothermal well; hearing; conditions.

1. The Administrator of the Division of Minerals of the Commission on Mineral Resources shall approve or reject an application for a permit to drill an exploratory well within 10 days after the Administrator receives the application in proper form. The permit must not be effective for more than 2 years, but may be extended by the Administrator.

2. Upon receipt of an application for a permit to drill or operate a geothermal well, the Administrator of the Division of Minerals shall transmit copies of the application to the State Engineer, the Administrator of the Division of Environmental Protection of the State Department of Conservation and Natural Resources, and the Director of the Department of Wildlife. After consultation with the State Engineer, the Administrator of the Division of Environmental Protection, and the Director of the Department of Wildlife, the Administrator of the Division of Minerals may issue a permit to drill or operate a geothermal well if it is determined that issuance of a permit is consistent with:

(a) The policies specified in NRS 445A.305 and 445B.100;

(b) The purposes of chapters 533 and 534 of NRS; and

(c) The purposes specified in chapter 501 of NRS.

3. The Administrator of the Division of Minerals shall approve or reject the application to drill or operate a geothermal well within 90 days after the Administrator receives it in proper form, unless it is determined that a conflict exists pursuant to subsection 2 or a public hearing is necessary pursuant to subsection 4. Notice of the conflict or need for a public hearing must be provided to the applicant within the 90-day period.

4. The State Engineer and the Administrator of the Division of Minerals may hold public hearings jointly or separately to gather such evidence or information as they deem necessary for a full understanding of all the rights involved and to guard properly the public interest.

5. A permit issued pursuant to this section must include any conditions:

(a) Deemed necessary by the Administrator of the Division of Minerals to carry out the purposes of this section; and

(b) Imposed by the State Engineer consistent with the provisions of chapters 533 and 534 of NRS.

(Added to NRS by 1983, 2091; A 1985, 1304; 1987, 778; 1993, 1701; 1997, 509; 1999, 3633; 2003, 1581)

NRS CROSS REFERENCES.
Water and air pollution control, NRS 445A.305, 445B.100
Wildlife, NRS ch. 501

NRS 534A.080 Fees; use of money.

1. The Commission on Mineral Resources shall impose and collect a fee for examining and filing an application for a permit to drill or operate a geothermal well or to drill an exploratory well. The fee must be deposited with the State Treasurer, for credit to the Account for the Division of Minerals created in the State General Fund pursuant to NRS 513.103.

2. The fee may be based in part on the number of acres of land being used by the person who holds the permit.

3. The Commission and the Division of Minerals may use the money deposited in the Account for the Division of Minerals pursuant to this section to administer the provisions of this chapter.

(Added to NRS by 1983, 2091; A 1985, 1304; 1993, 111, 1702; 1995, 579)

ADMINISTRATIVE REGULATIONS.
Fees, NAC 534A.210-534A.216

NRS 534A.090 Regulations of Commission on Mineral Resources. The Commission on Mineral Resources may adopt regulations necessary for carrying out the provisions of this chapter.

(Added to NRS by 1983, 2091)

ADMINISTRATIVE REGULATIONS.
General provisions, NAC 534A.010-534A.085
Regulations of Commission on Mineral Resources, NAC 534A.170-534A.690

ANSWERS TO COMMONLY ASKED QUESTIONS

ANSWERS TO COMMONLY ASKED QUESTIONS

- Do I have to have a well driller's license to drill my own well?

  Yes. Every water well drilled in Nevada must be drilled by a licensed well driller pursuant to NRS 534.160.

- Is a water right permit required to drill a domestic well within Nevada?

  No. Domestic water wells are the only type of water well exempt from the State Engineer's permitting process (Nevada Revised Statutes 534.080 and 534.180).

- What is the format for the well driller's licensing exam?

  The well driller's examination consists of three parts:

  Part 1: Is a written examination to determine the applicant's knowledge of the rules and regulations for drilling wells in Nevada.

  Part 2: Requires the applicant to identify a well location on a topographic map by full legal description.

  Part 3: Is an oral interview by the statewide Well Driller's Board regarding the applicant's experience and knowledge of general drilling practices.

- Can I access and download the regulations over the internet?

  Yes. The regulations can be seen at: www.leg.state.nv.us/NAC/NAC-534.html

- What if I can't comply with the Regulation and/or I need a waiver of the Regulation?

- **Waivers can be obtained with the approval of the Division of Water Resources. The process for obtaining various waivers is explained in greater detail below:**

NAC 534 WAIVER EXPLANATION & PROCESS

NAC 534.440 Waiver to drill exploratory well to determine quality or quantity of water in designated basin: (W-waiver)
Summary: The W-waiver applies to designated basins only and must be accompanied by the filing of a Change Application [or a new appropriation, only if there is appropriable water in the hydrographic basin] for an existing water right that will attach to the final well location. The W-waiver allows multiple boring to be drilled within the same quarter–quarter section to find adequate water. Applicants that wish to drill only a single well boring should file a Temporary Change Application. The submitted Change Application, filed simultaneously with the W-waiver, will be missing a map and the tie-bearing information because the final well

location is unknown, and will generate a Return for Correction Letter that requires a map and the tie-bearing information within 60 days. The W-wavier is issued simultaneously with the Return for Correction letter that starts the clock on drilling the exploration wells. A 60 day extension of time may be requested for the Return for Correction letter that would ultimately allow a statutory maximum of 120 days to determine the well location and correct the Change Application. If the Change Application is cancelled, withdrawn, or denied, the authorization granted under this waiver will automatically be rescinded, and all well must be plugged and abandoned per NAC 534.

NAC 534.441 Waiver to drill monitoring well: (MO-waiver)
Summary: The MO-waiver allows the installation of a well not required for the purpose of complying with federal, state or local environmental requirements or any other federal, state or local requirements monitor, pursuant to NAC 534.450. In other words, an MO-waiver is required when the monitor well installation is for the applicant's need and is not required by a government entity. An Affidavit of Abandonment must be sign by the owner of record of the land in which the well is to be installed.

NAC 534.442 Waiver to use water to explore for minerals: (MM-waiver)
Summary: The MM-waiver is issued for one (1) year increments for projects where none or minimal previous exploration drilling has been conducted. Typically, MM-waivers for these exploration drilling projects are limited to two (2) years usage. Drilling projects that continue at the same location beyond the two year limit may not be eligible for this waiver, as they may be considered to have progressed beyond exploration drilling and need to acquire permitted water rights through the appropriation process or by the purchase of existing water rights. Any temporary water well drilled under the MM-waiver must be decommissioned and plugged at the expiration of the MM-waiver unless a water right permit is placed in the well.

NAC 534.444 Waiver to use water to explore for oil, gas or geothermal resources: (OG-waiver)
Summary: The OG-waiver is issued for one (1) year to allow water use, either from an existing well or by drilling a new water well, to support oil, gas and geothermal drilling operations including dust control and temperature gradient wells. Any temporary water well drilled under the OG-waiver must be decommissioned and plugged at the expiration of the OG-waiver unless a water right permit is placed in the well.

NAC 534.446 Waiver to use water for construction of highway: (C-waiver)
Summary: The C-waiver is issued only to the Nevada Department of Transportation (NDOT). The C-waiver request must be submitted through and by NDOT. Road construction projects by cities, counties or federal entities are ineligible for this waiver.

NAC 534.4465 Waiver to use water to drill for water well: (WE-waiver)

Summary: The WE-waiver applies to both designated and non-designated basins, and allows for the temporary use of water to drill exploratory water wells, either from an existing well or by drilling a new water well. Any temporary water well drilled under the W-Waiver must be decommissioned and plugged at the expiration of the WE-waiver unless a water right permit is placed in the well.

NAC 534.448 Waiver to drill well in shallow groundwater system to alleviate certain potential hazards: (DW-waiver)
Summary: The DW-waiver is issued for the short term dewatering of groundwater hazards to structures or construction projects. Applicants anticipating long term or permanent dewatering projects may apply, but will be required to begin the appropriation process for a water rights permit. Plans for the dewatering well construction/decommissioning and plugging must be included with the waiver application. In addition, the disposal of dewater discharge must be explained and copies of the appropriate permits or approvals from other regulatory agencies must be supplied with the waiver request.

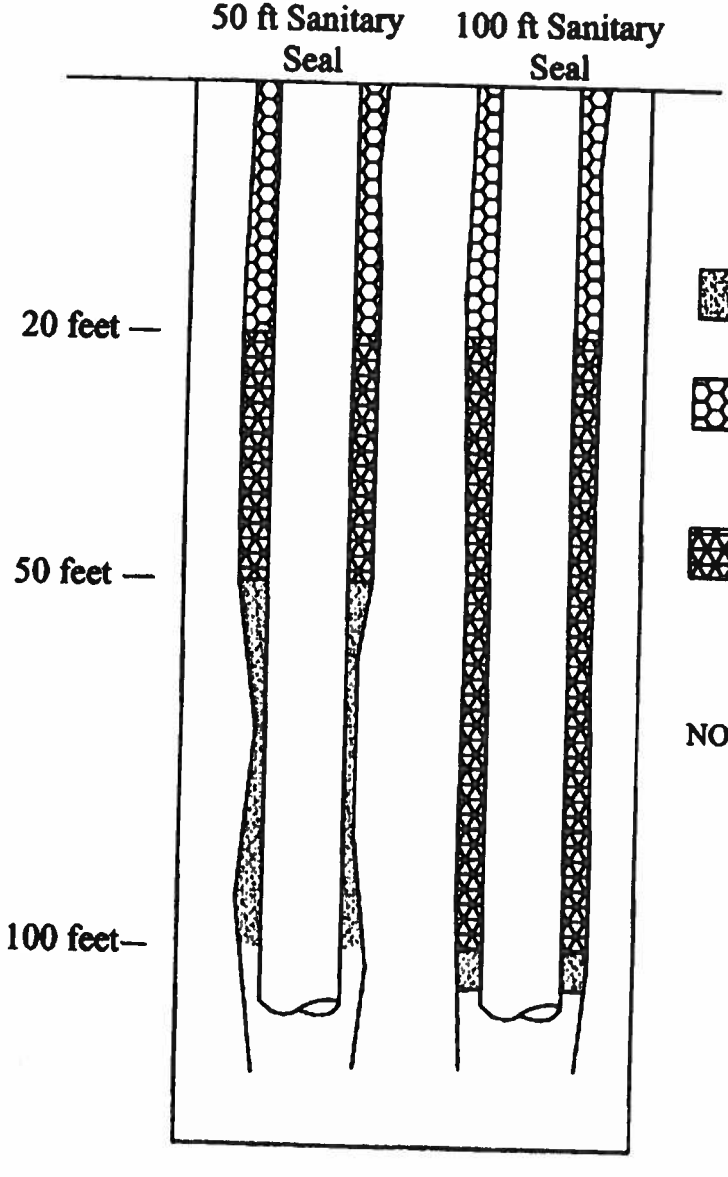
NAC 534.449 Waiver of requirement to plug well.: (P-waiver)
Summary: The P-waiver is issued for one (1) year to temporarily waive a required plugging of a well, except a domestic well, to allow time to evaluate the well's potential usefulness for additional water supply purposes and to acquire the appropriate permits. The subject well must comply with current well construction standards. Division staff may field inspect the well to verify its condition. (See NAC 534.427 for more on required well condition)

NAC 534.450 Waiver of requirement of this chapter: (R-waiver)
Summary: The R-Waiver may be issued for a unique circumstance to waive any requirement, with good cause shown, of NAC Chapter 534 except well casing thickness.

ILLUSTRATIONS

Sanitary Seal* Construction

w/o conductor casing



gravel pack

Neat Cement
Cement Grout
Concrete Grout

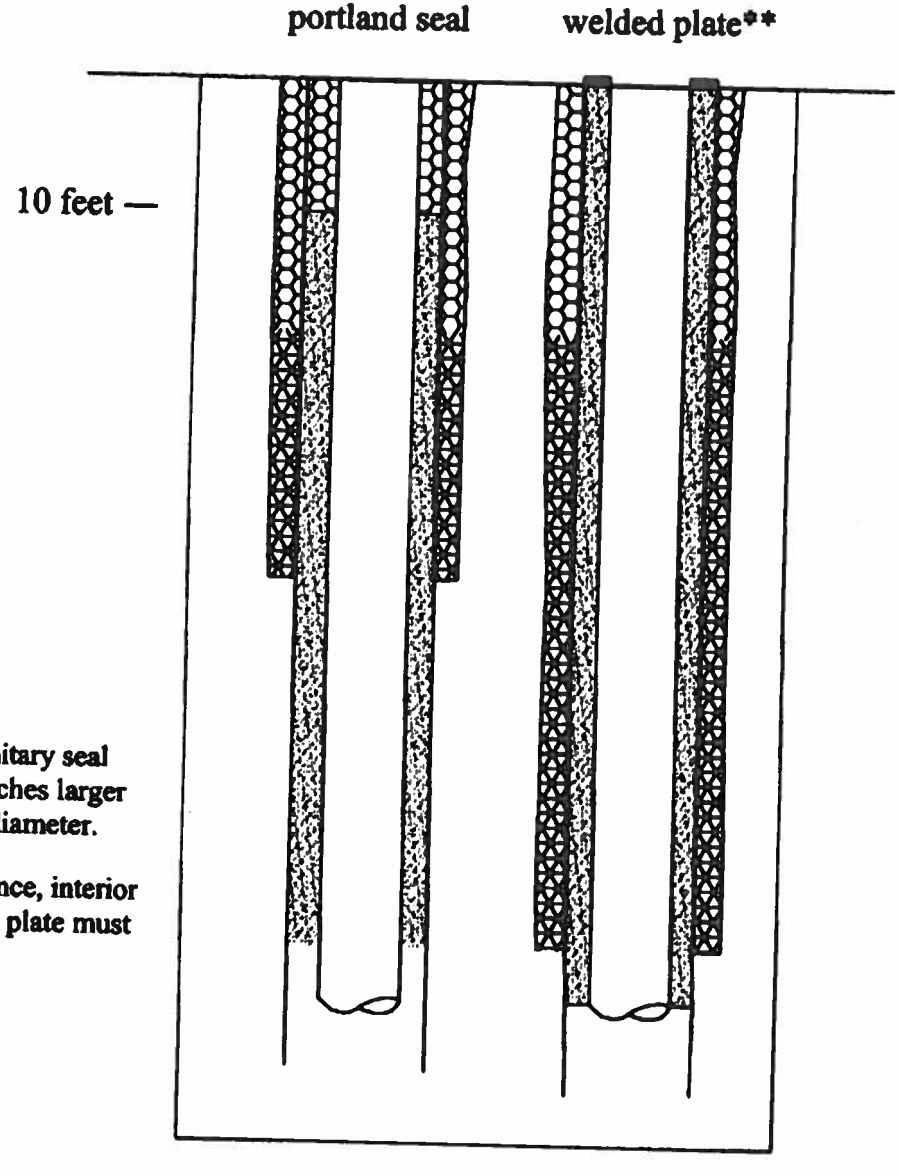
Neat Cement
Cement Grout
Concrete Grout
Bentonite Chips

NOTES:

*Well bore for a sanitary seal must be at least 4 inches larger than largest casing diameter.

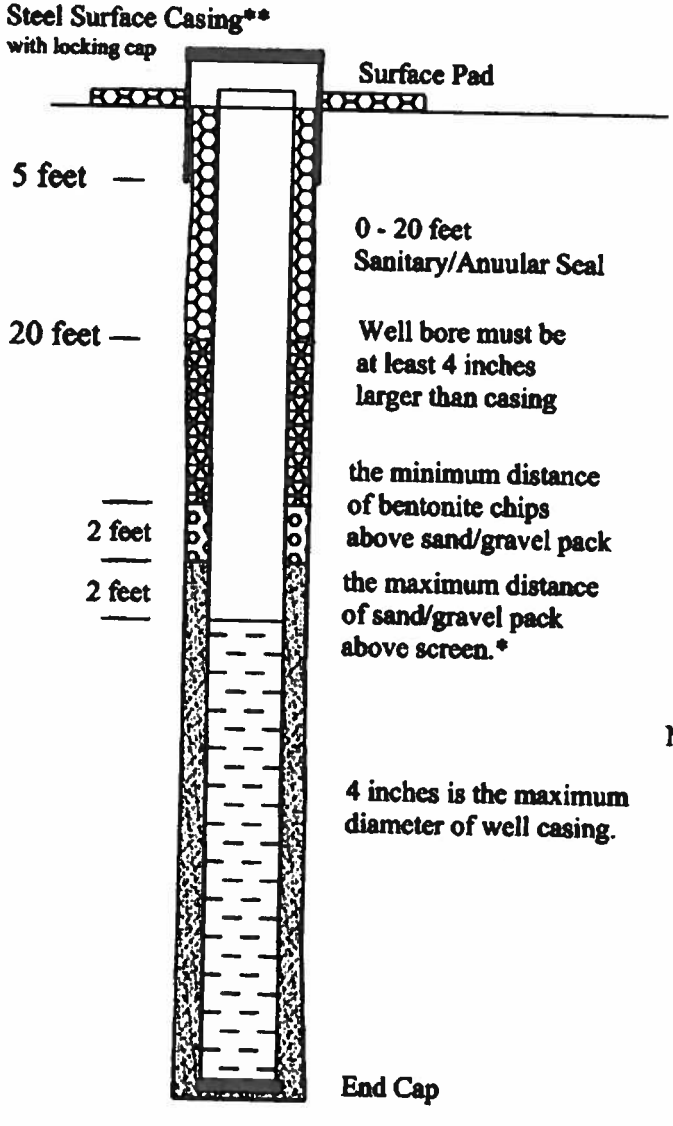
**Entire circumference, interior and exterior, of steel plate must be welded.

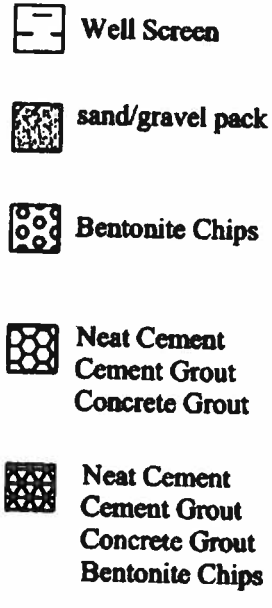
w/ conductor casing



Minimum Well Construction

Monitor





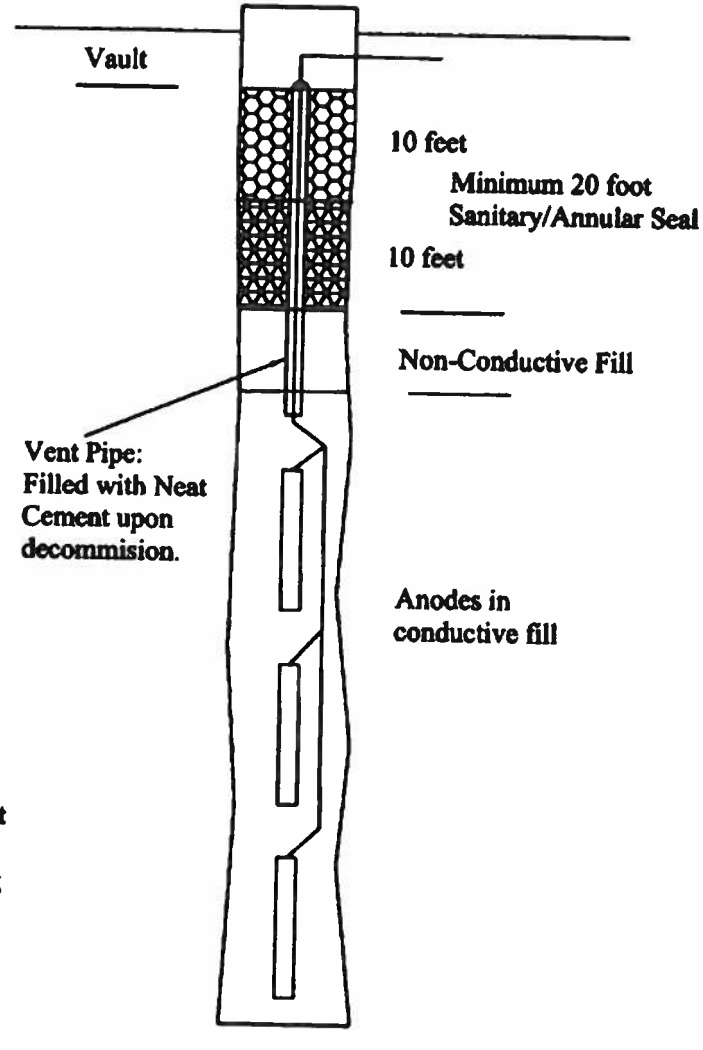
NOTES:

A waiver may be requested for alternative constructions.

*Sand/gravel packs exceeding 2 feet above screen will required that the casing be removed, perforated or drilled out for decommissioning plugging.

**May alternatively use vehicle rated vaults in traffic areas.

Cathodic

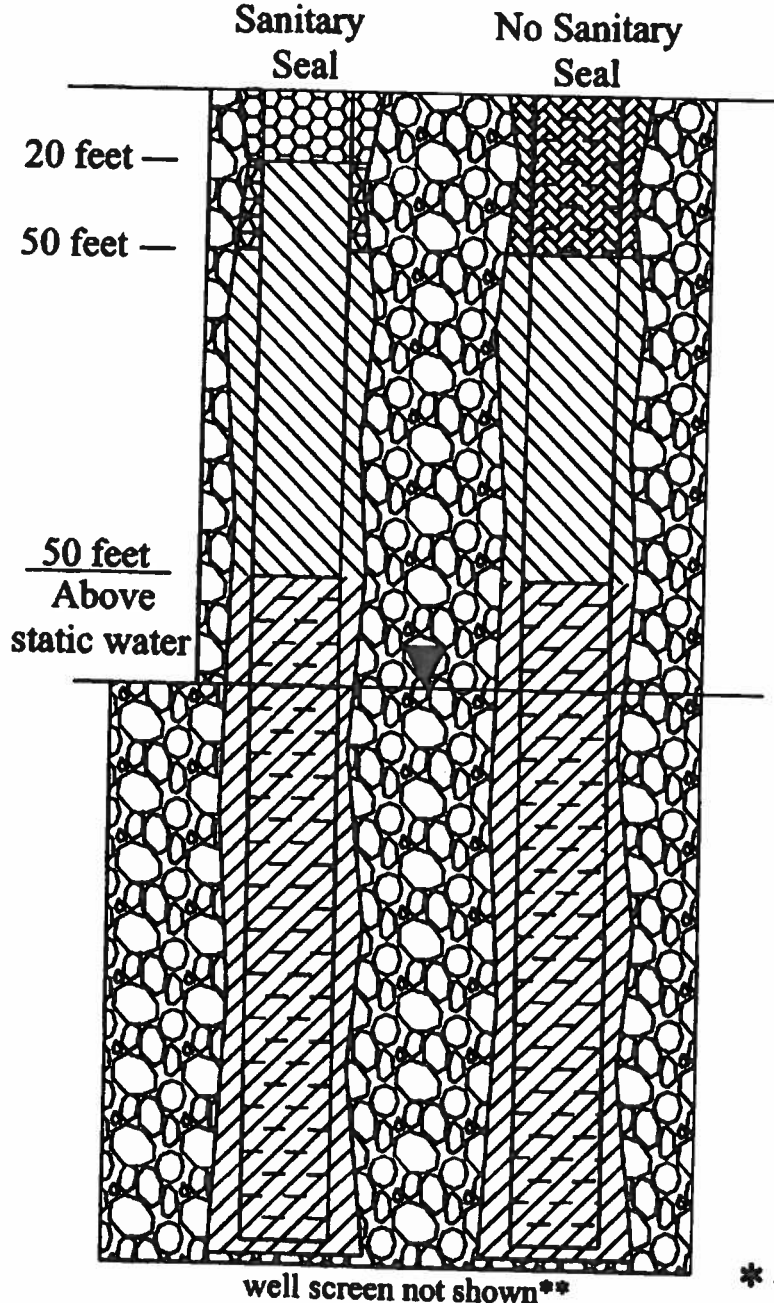


Water Well Plugging

casing does not break free

Single Aquifer

per well log*



Perforated
4 perfs per 2 feet vert

Bentonite Chips

Neat Cement

Neat Cement
Cement Grout
Concrete Grout

Neat Cement
Cement Grout
20% Bentonite Grout

Neat Cement
Cement Grout
Concrete Grout
Bentonite Chips

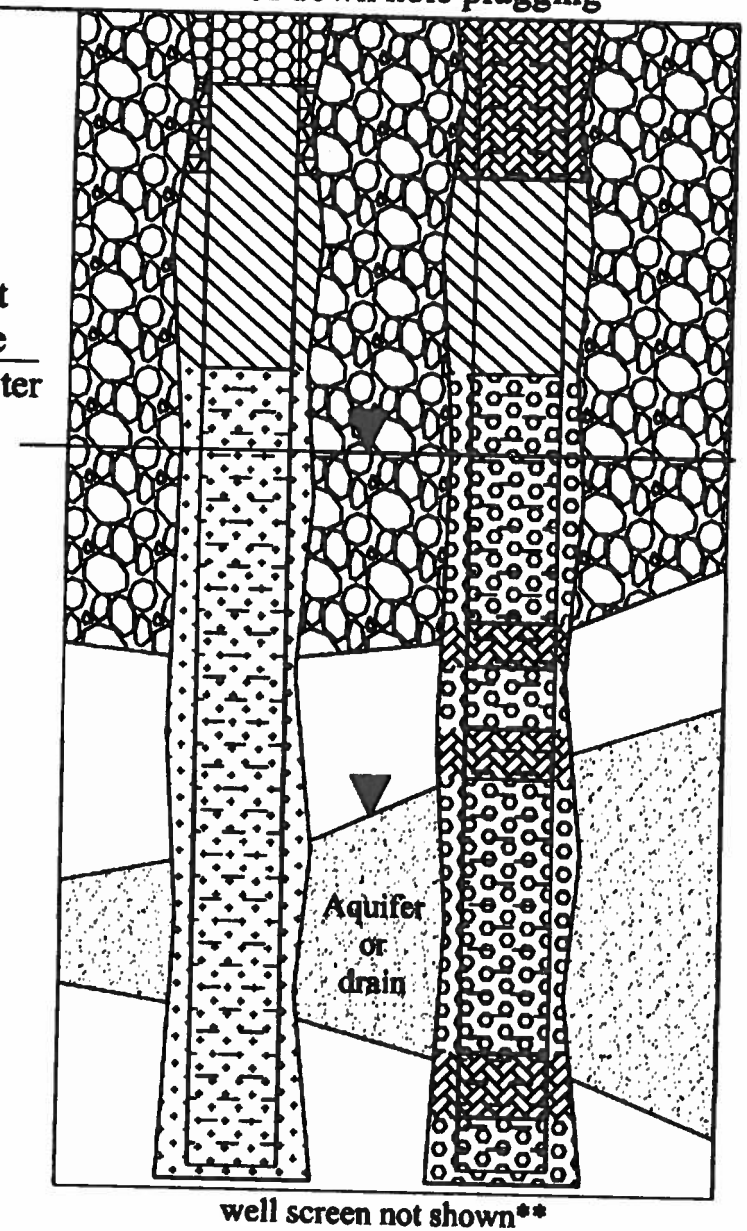
Neat Cement
Cement Grout
Concrete Grout
Bentonite Chips
20% Bentonite Grout
Clean fill

Neat Cement
Cement Grout
Bentonite Chips
20% Bentonite Grout

Multiple Aquifers

per well log *

Surface plug shown is independent of down hole plugging



* No well log - No Bentonite Chips

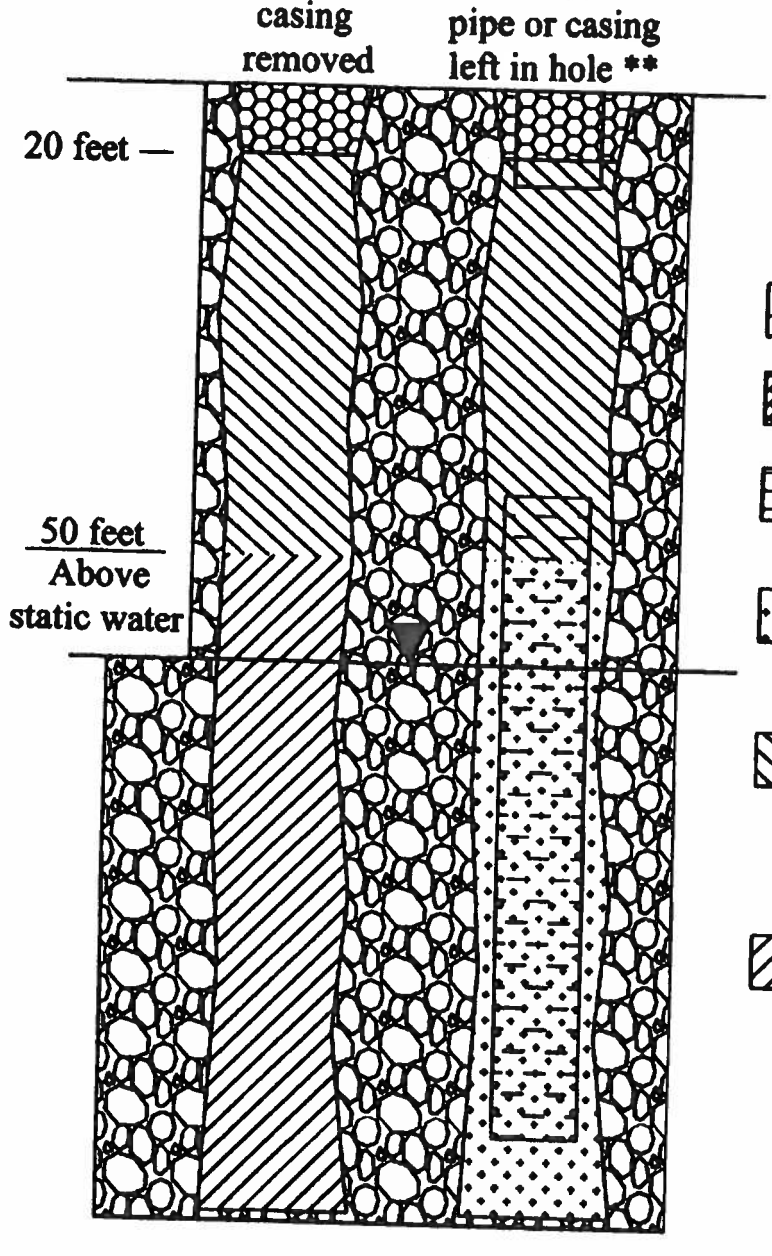
** It is not necessary to perf screened intervals.

Borehole Plugging

with & without casing or drill pipe

Single Aquifer

per responsible company agent *



Perforated
4 perfs per 2 feet vert

Neat Cement

Neat Cement
Cement Grout
Concrete Grout

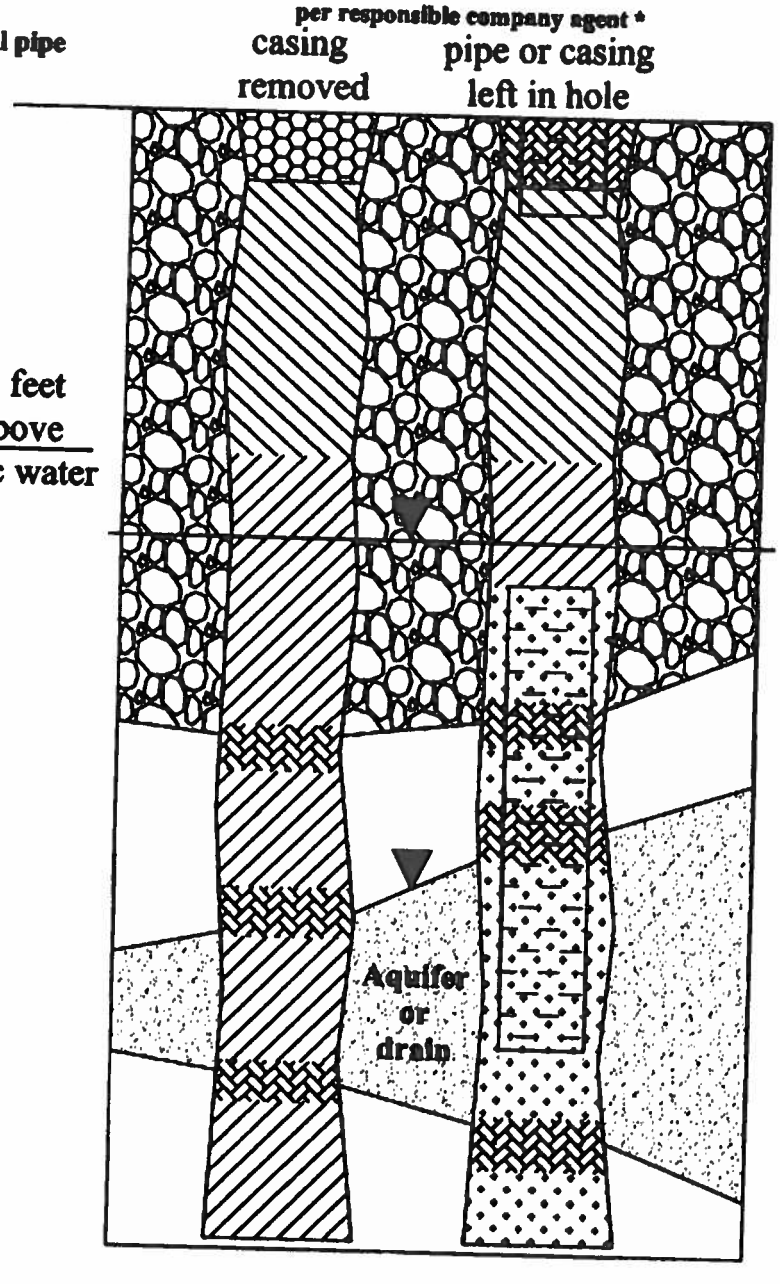
Neat Cement
Cement Grout
20% Bentonite Grout

Neat Cement
Cement Grout
Concrete Grout
Bentonite Chips
Clean fill

Neat Cement
Cement Grout
Concrete Grout
Bentonite Chips
15% Bentonite Grout

Multiple Aquifers

per responsible company agent *



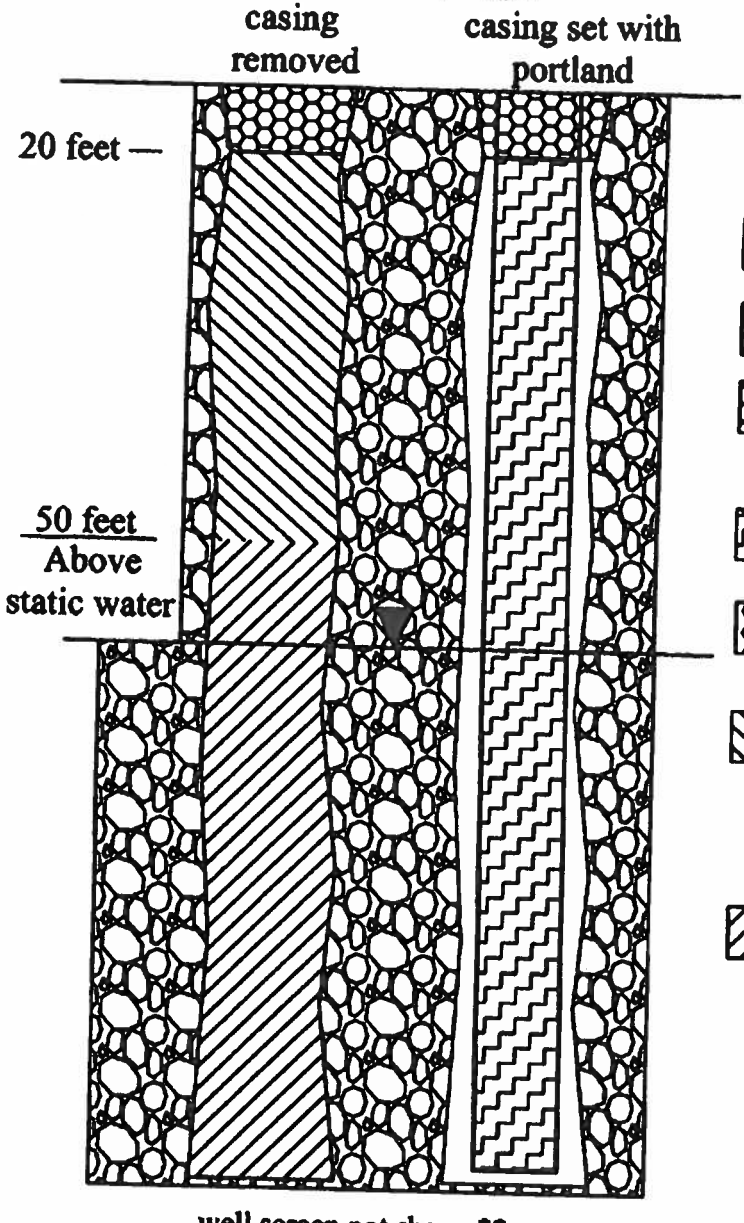
* No borehole information - No Bentonite Chips

Monitor Well Plugging

for gravel pack equal or less than 2 feet above screen

Single Aquifer

per owner/agent agent *



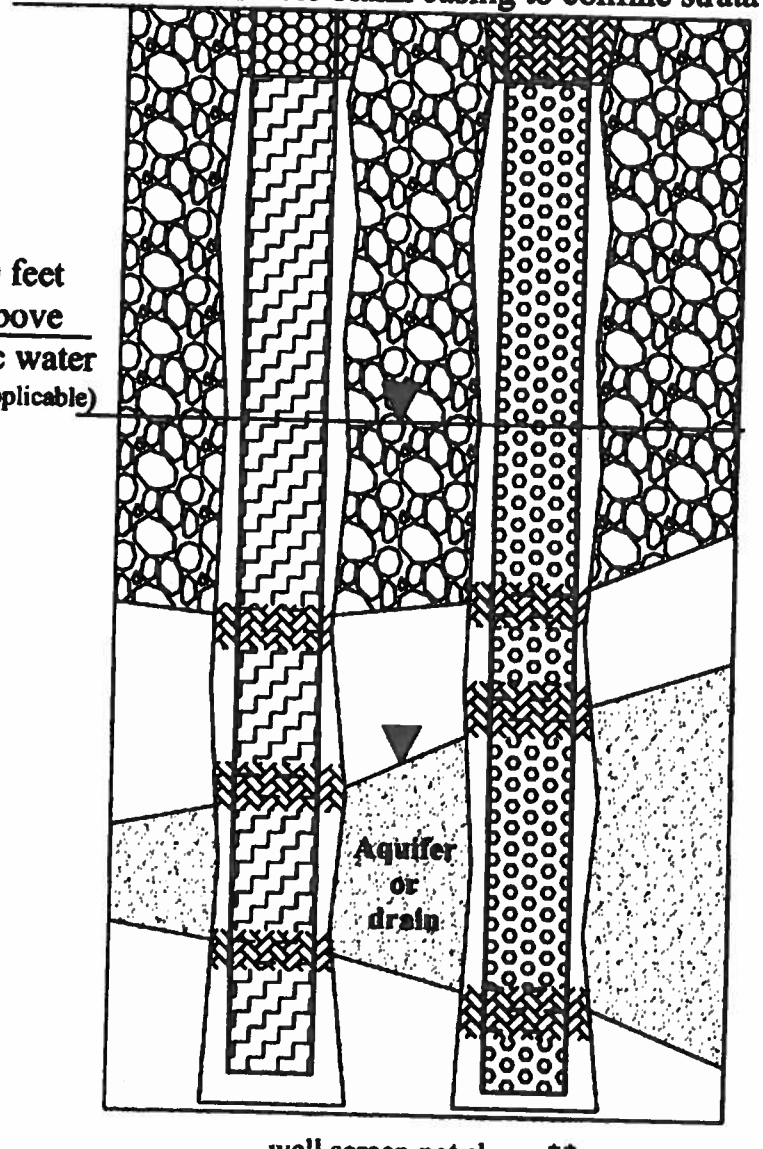
well screen not shown**

- Perforated
  4 perfs per 2 feet vert
- Neat Cement
- Neat Cement
  Cement Grout
  Concrete Grout
- Neat Cement
  Bentonite Chips
- Bentonite Chips
- Neat Cement
  Cement Grout
  Concrete Grout
  Bentonite Chips
  Clean fill
- Neat Cement
  Cement Grout
  Concrete Grout
  Bentonite Chips
  15% Bentonite Grout

Multiple Aquifers

per owner/agent agent *

perf 20 ft of casing not cemented at surface and down hole blank casing to confine strata



well screen not shown**

* No well information - Neat Cement Only

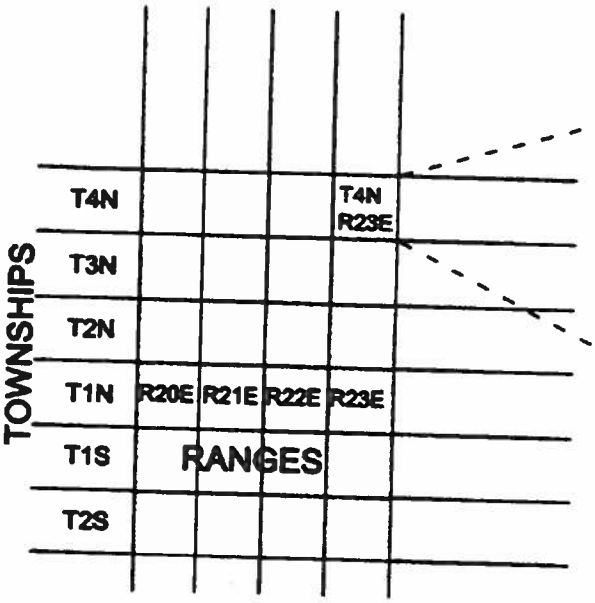
** It is not necessary to perf screened intervals.

APPENDIX A

PUBLIC LAND SURVEY

A township is a square parcel of land six miles on each side. Its location is established as being so many six-mile units east of a north-south line (called the "meridian") and so many six-mile units north or south of an east-west line (called the "baseline"). The township is described by "township" and "range", e.g. T.4N., R.23E. (see illustration on following page). Each township is further divided in 36 parts called "sections" one (1) mile square. A typical section containing 640 acres may be further subdivided into quarters. The quarter (¼) of a section is equal to 160 acres and described as the NE¼ or the NW¼ or the SE¼ or the SW¼ of that Section. The quarter section may be further subdivided into four quarters, each being 1/16 of a section or 40 acres. Each sixteenth (1/16) is described as the NE¼ or the NW¼ or the SE¼ or the SW¼ of the particular quarter section. A person must determine which is north on the map (which is generally the top). In this case the easterly direction would be to the right, south to the bottom and west to the left. The written location of a specific 40 acre parcel of land would be NW¼ of the NW¼ of Section 13, T.4N., R.23E. Some sections may contain more or less acreage than 640.

- A Section measures 5,280 feet on each side.
- A one quarter (¼) Section measures 2,640 feet on each side.
- A one sixteenth Section of land (¼ of ¼) measures 1,320 feet on each side.

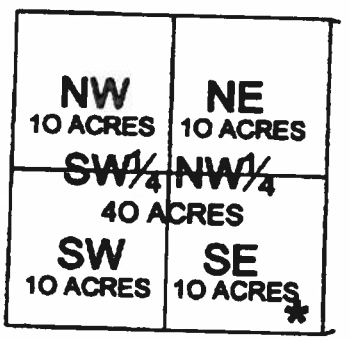


1 TOWNSHIP = 6 SQUARE MILES

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

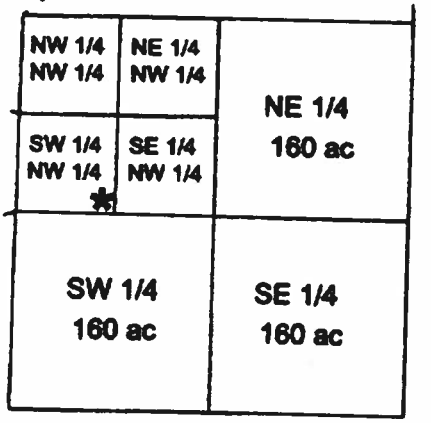
T 4 N R 23 E

PUBLIC LAND SURVEY [PLS]



DRILL HOLE EXAMPLE - *

SECTION 36



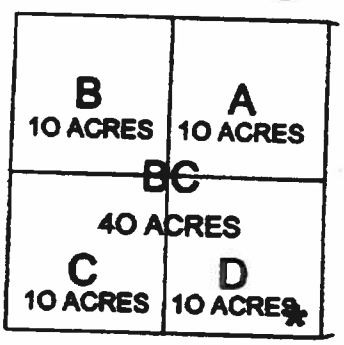
PLS DESCRIPTION WRITTEN AS:

SW¼NW¼SEC 36 T4N R23E- 40 ACRES

SE¼SW¼NW¼SEC 36 T4N R23E -10 ACRES

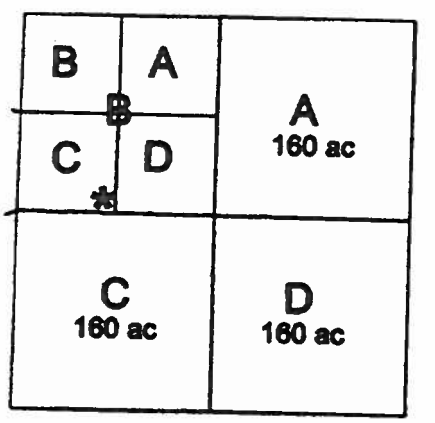
1 SECTION = 1 SQARE MILE = 640 ACRES

US GEOLOGICAL SURVEY [USGS]



DRILL HOLE EXAMPLE - *

SECTION 36



USGS DESCRIPTION WRITTEN AS:

N04 E23 36 BC - 40 ACRES

N04 E23 36 BCD - 10 ACRES

1 SECTION = 1 SQARE MILE = 640 ACRES

PLSS / TOPOGRAPHIC MAP WELL LOCATION QUIZ

WELL 2: SE¼SE¼ Section 7, Township 16 North, Range 22 East

WELL 3: NW¼SW¼ Section 1, Township 16 North, Range 21 East

APPENDIX B

DUPLICATE
RETAIN THIS COPY

NOTICE OF INTENT

No. 59580

DIVISION OF WATER RESOURCES:

_____, 20.....

On or about_____, 20....., I plan to commence drilling ☐, deepening ☐, reconditioning ☐, plugging ☐ of a ..... inch well, for_____purposes.
This well is ☐ is not ☐ a replacement well. (Proposed use of well)

The work will be done for_____
(Name of client and address)

location of well is_____¼_____¼ Sec._____T._____N/S R._____E.....

PARCEL NO._____SUBDIVISION NAME_____

ADDRESS (at well location)_____

PERMIT/WAIVER NO._____, in_____County.

Contractor's Lic. No._____Driller's Lic. No._____

Company Name and Address_____

_____ _____
Driller's Signature

Need log forms ☐ Need notice cards ☐ Date log mailed_____, 20.....

ORIGINAL
FILE WITH DIVISION OF
WATER RESOURCES

NOTICE OF INTENT

No. 59580

DIVISION OF WATER RESOURCES:

_____, 20.....

On or about_____, 20....., I plan to commence drilling ☐, deepening ☐, reconditioning ☐, plugging ☐ of a ..... inch well, for_____purposes.
This well is ☐ is not ☐ a replacement well. (Proposed use of well)

The work will be done for_____
(Name of client and address)

location of well is_____¼_____¼ Sec._____T._____N/S R._____E.....

PARCEL NO._____SUBDIVISION NAME_____

ADDRESS (at well location)_____

PERMIT/WAIVER NO._____, in_____County.

Contractor's Lic. No._____Driller's Lic. No._____

Company Name and Address_____

_____ _____
Driller's Signature

Need log forms ☐ Need notice cards ☐

(O)-5256 (Rev. 12-00)

APPENDIX C

STATE OF NEVADA
DIVISION OF WATER RESOURCES
WELL DRILLER'S PLUGGING REPORT

OFFICE USE ONLY
Log No. _____
Permit No. _____
Basin _____

PRINT OR TYPE ONLY
DO NOT WRITE ON BACK

Please complete this form in its entirety in accordance with NRS 534.170 and NAC 534.340

1 OWNER _____ NOTICE OF INTENT NO. _____
MAILING ADDRESS _____ ADDRESS AT WELL LOCATION _____
Subdivision Name: _____ *County:* _____

2 LOCATION ___ ¼ ¼ Sec T N/S R E
PERMIT/WAIVER No. _____ Latitude _____ UTM E _____ ☐ NAD 27
Issued by Water Resources *Parcel No.* Longitude _____ N _____ ☐ NAD 83/WGS 84

3 TYPE OF WELL
☐ Domestic ☐ Irrigation ☐ Test
☐ Municipal/Industrial ☐ Monitor ☐ Stock

Is this well being plugged because a replacement well was drilled? _____
If yes, what is replacement well NO? _____
Is there an existing well log? _____
If yes, what is NDWR well log #? _____

4 *EXISTING WELL CONSTRUCTION*
Depth Drilled _____ Feet Depth Cased _____ Feet

EXISTING CASING SCHEDULE

Size O.D. (Inches)	Weight/Ft. (Pounds)	Wall Thickness (Inches)	From (Feet)	To (Feet)

Existing Perforations:
Type of perforation _____
Size of perforation _____

From _____ feet to _____ feet
From _____ feet to _____ feet
From _____ feet to _____ feet
From _____ feet to _____ feet
From _____ feet to _____ feet

5 *WATER LEVEL*
Static water level _____ feet below land surface
Artesian flow _____ G.P.M. _____ P.S.I
Water temperature _____ °F Quality _____

6 Additional Notes or Comments

7 WELL PLUGGING PROCEDURE
Was well cleaned out to total depth? ☐ yes ☐ no
If well was not cleaned out to total depth, please explain why: _____

Was the well contaminated? ☐ yes ☐ no
Was the casing pulled? ☐ yes ☐ no
Was the casing over drilled? ☐ yes ☐ no
If casing was left in place, please show where additional perforations were made:

Additional Perforations:
Type of perforator used: _____

From _____ feet to _____ feet Number of perfs per linear foot _____
From _____ feet to _____ feet Number of perfs per linear foot _____
From _____ feet to _____ feet Number of perfs per linear foot _____
From _____ feet to _____ feet Number of perfs per linear foot _____
From _____ feet to _____ feet Number of perfs per linear foot _____
From _____ feet to _____ feet Number of perfs per linear foot _____

8 WELL PLUGGING MATERIALS
Material Used

From _____ feet to _____ feet _____ ☐ Pumped ☐ Poured
From _____ feet to _____ feet _____ ☐ Pumped ☐ Poured
From _____ feet to _____ feet _____ ☐ Pumped ☐ Poured
From _____ feet to _____ feet _____ ☐ Pumped ☐ Poured
From _____ feet to _____ feet _____ ☐ Pumped ☐ Poured
From _____ feet to _____ feet _____ ☐ Pumped ☐ Poured

Neat Cement Fluid Weight _____ lbs/gal
Bentonite Grout _____ % bentonite
Date Started _____
Date Completed _____

9 DRILLER'S CERTIFICATION
This well was plugged and abandoned under my supervision and the report is true to the best of my knowledge.
Name _____ *Contractor*
Address _____ *Contractor*
Nevada contractor's license number _____
issued by the *State Contractor's Board*
Nevada driller's license number issued by the Division of Water Resources, the *on-site driller* _____
Signed _____ *By driller performing actual drilling on site or contractor*
Date _____

USE ADDITIONAL SHEETS IF NECESSARY

STATE OF NEVADA
DIVISION OF WATER RESOURCES
WELL DRILLER'S REPORT

OFFICE USE ONLY
Log No. _____
Permit No. _____
Basin No. _____

PRINT OR TYPE IN BLACK INK ONLY
DO NOT WRITE ON BACK

Please complete this form in its entirety in accordance with NRS 534.170 and NAC 534.340

NOTICE OF INTENT NO. _____
WELL NAME *(if applicable)*: _____

1. OWNER/CLIENT NAME _____
MAILING ADDRESS _____

DETAILED ADDRESS AT WELL LOCATION _____
Subdivision Name: *County:*

2. PLS LOCATION ¼ ¼ Sec N/S E
PERMIT/WAIVER NO. _____ _____
Issued by Water Resources *Current Parcel No.*

Latitude _____ UTM E _____ ☐ NAD 27
Longitude _____ UTM N _____ ☐ NAD 83/WGS 84

3. WORKED PERFORMED
☐ New Well ☐ Deepen: Orig WL# _____
☐ Replacement: Original well log # _____
☐ Recondition: Original well log # _____

4. PROPOSED USE
☐ Domestic ☐ Irrigation ☐ Monitor
☐ Mining / Dewater ☐ Com / Ind ☐ Stock
☐ Test / Other ☐ Mun / QM ☐ Rec

5. WELL TYPE
☐ Auger ☐ Rotary ☐ RVC
☐ Air ☐ Mud ☐ Sonic
☐ Other

6. LITHOLOGIC LOG

Material Encountered	Lost Circ.	Water Strata	From	To	Thickness

Date started: _____ , 20 ____
Date completed: , 20

9. WELL CONSTRUCTION
Depth Drilled: Feet Depth Cased: Feet

HOLE DIAMETER (BIT SIZE)

	From	To
Inches	Feet	Feet
Inches	Feet	Feet
Inches	Feet	Feet

CASING SCHEDULE

Size O.D. (Inches)	Weight/Ft. (Pounds)	Wall Thickness (Inches)	From (Feet)	To (Feet)

PERFORATIONS:
Type of perforation: _____
Size of perforation: _____
From _____ Feet To _____ Feet
From _____ Feet To _____ Feet
From Feet To Feet

ANNULAR MATERIALS

☐ Sanitary Seal	to			
☐ Neat Cement	to		☐ Pumped	☐ Poured
☐ Cement Grout	to		☐ Pumped	☐ Poured
☐ Concrete Grout	to		☐ Pumped	☐ Poured
☐ Bentonite Chips	to		☐ Pumped	☐ Poured
☐ Bentonite Grout	to		☐ Pumped	☐ Poured
☐ 15 % ☐ 20 % ☐ Other, explain:				
☐ Gravel Pack [> 0.2 in.]	to		☐ Pumped	☐ Poured
☐ Sand Pack [< 0.2 in.]	to		☐ Pumped	☐ Poured
☐ Other, explain:	to		☐ Pumped	☐ Poured

7. WATER QUALITIES
Static water level: _____ Feet below land surface
Artesian Flow: _____ G.P.M. _____ P.S.I.
Water Temperature: _____ ° Fahrenheit
Water Quality: _____

8. WELL TEST DATA
Test Method: ☐ Bailer ☐ Pump ☐ Air Lift

G.P.M.	Draw Down (Feet Below Static)	Recorded Time (Hours)

10. DRILLER'S CERTIFICATION
This well was drilled under my supervision. This report is true to the best of my knowledge.

Name _____
Contractor

Address _____
Contractor

Nevada contractor's license number as issued by the *State Contractor's Board:* _____
Nevada well driller's license number as issued by the *Nevada Division of Water Resources (on-site driller):* _____

Signed. _____
By driller performing actual drilling on site or contractor

Date:

(Rev. 08-12)

USE ADDITIONAL SHEETS IF NECESSARY

IN THE OFFICE OF THE STATE ENGINEER OF NEVADA

AFFIDAVIT OF INTENT TO ABANDON A WELL

Notice of Intent # _____

I, _____ Owner Name & Title

_____ Company

_____ Address where owner/agent can be reached

_____

_____ Telephone Number

of the real property located at:

Address _____

County Assessor Parcel Number (APN) _____

Situated within the _____¼ _____¼ Section ____ T ____N R ____E, M.D.B. & M.

{ Latitude (N): _____ / Longitude (W): _____ } or { UTM (m) E: _____ / UTM (m) N: _____ } Datum _____

and whereupon an existing well or wells are located, fully understand that I shall be responsible for, and shall cause the existing well to be plugged and abandoned in accordance with the provisions contained in Nevada Administrative Code (NAC) 534.420 and all other applicable rules and regulations for drilling/plugging wells in the State of Nevada, **not later than thirty days after completion of the replacement well or not later than** _____**(date).**

I shall further make any purchaser of this parcel aware of these conditions.

Owner: (Printed Name): _____ (Signature): _____

State of Nevada

County of _____

Subscribed and sworn to before me on _____

by _____

_____

Signature of Notary Public Required

Notary Seal

Revised 05/12

IN THE OFFICE OF THE STATE ENGINEER OF NEVADA

AFFIDAVIT OF INTENT TO ABANDON A MONITORING WELL

Notice of Intent # _____ NDEP Order # _____

I, _____ Owner Name & Title

_____ Company

_____ Address where owner/agent can be reached

_____

_____ Telephone Number

of the real property located at:

Street Address (if any) _____

County Assessor Parcel Number (APN) _____

Situated within the _____¼ _____¼ Section ____ T ____N R ____E, M.D.B. & M.

{ Latitude (N): _____ / Longitude (W): _____ } or { UTM (m) E: _____ / UTM (m) N: _____ } Datum _____

and whereupon one or more monitoring wells are located or to be located, fully understand that I shall be responsible for, and shall cause the existing wells to be plugged and abandoned in accordance with the provisions contained in Nevada Administrative Code (NAC) 534.4365 and all other applicable rules and regulations for drilling/plugging wells in the State of Nevada, **not later than thirty days after the date when monitoring is no longer required.**

I shall further make any purchaser of this parcel aware of these conditions.

Owner: (Printed Name): _____ (Signature): _____

State of Nevada
County of _____

Subscribed and sworn to before me on _____

by _____

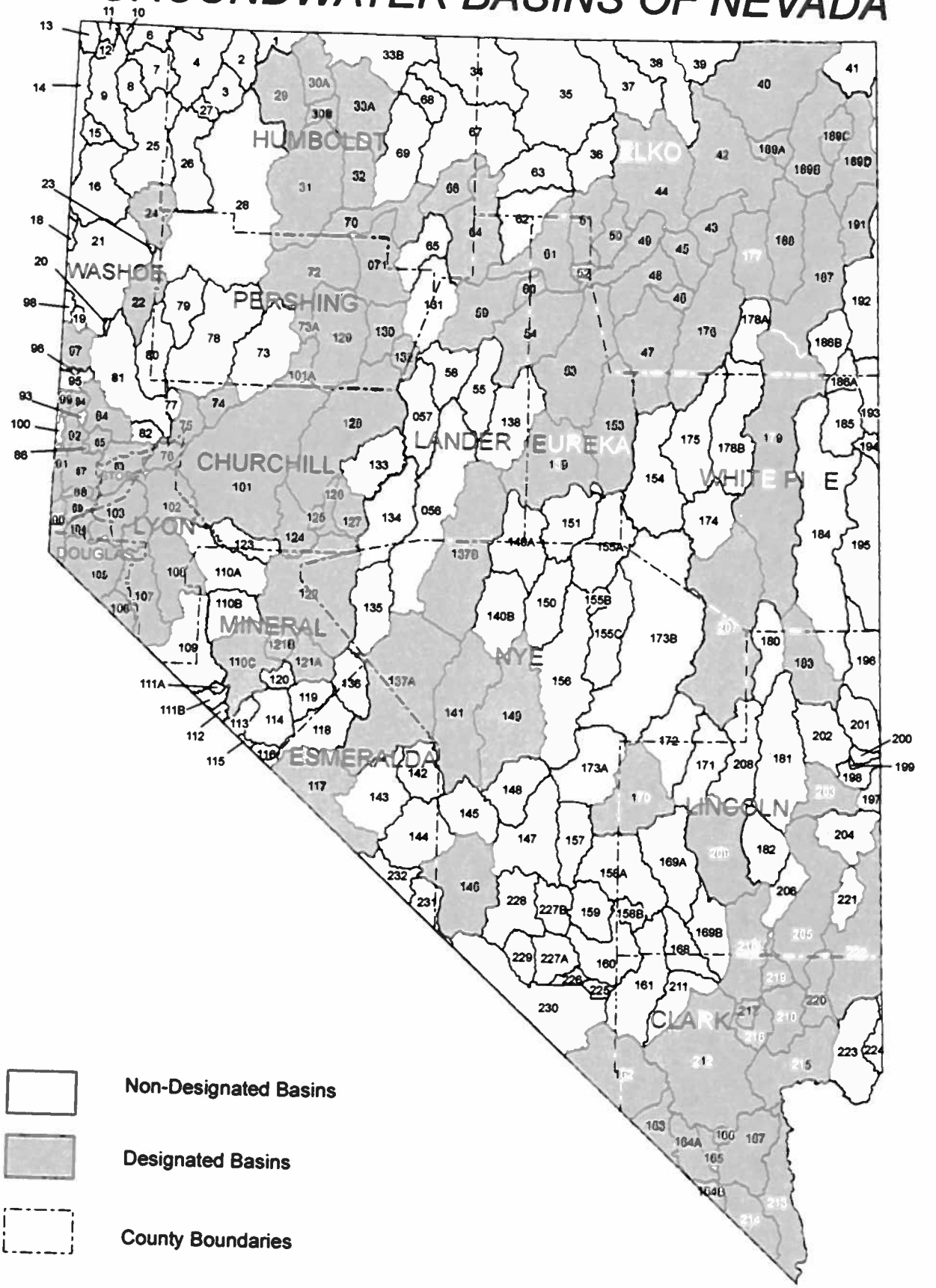
_____
Signature of Notary Public Required

Notary Seal

Revised 05/12

APPENDIX D

GROUNDWATER BASINS OF NEVADA



A detailed map is available at the Division's website \\water.nv.gov

October 2012

1. NORTHWEST REGION

1. PUEBLO V.
2. CONTINENTAL LAKE V.
3. GRIDLEY LAKE V.
4. VIRGIN V.
5. SAGE HEN V.
6. GUANO V.
7. SWAN LAKE V.
8. MASSACRE LAKE V.
9. LONG V.
10. MACY FLAT
11. COLEMAN V.
12. MOSQUITO V.
13. WARNER V.
14. SURPRISE V.
15. BOULDER V.
16. DUCK LAKE V.

2. BLACK ROCK DESERT REGION

17. PILGRIM FLAT
18. PAINTERS FLAT
19. DRY V.
20. SANO V.
21. SMOKE CREEK DESERT
22. SAN EMIDIO DESERT
23. GRANITE BASIN
24. HUALAPAI FLAT
25. HIGH ROCK LAKE VALLEY
26. MUD MEADOW
27. SUMMIT LAKE V.
28. BLACK ROCK DESERT
29. PINE FOREST V.
30. KINGS RIVER V.
    (A) RIO KING SUBAREA
    (B) ROD HOUSE SUBAREA
31. DESERT V.
32. SILVER STATE V.
33. QUINN RIVER V.
    (A) OROVADA SUBAREA
    (B) McDERMITT SUBAREA

3. SNAKE RIVER BASIN

34. LITTLE OWYHEE RIVER AREA
35. SOUTH FORK OWYHEE RIVER AREA
36. INDEPENDENCE V.
37. OWYHEE RIVER AREA
38. BRUNEAU RIVER AREA
39. JARBIDGE RIVER AREA
40. SALMON FALLS CREEK AREA
41. GOOSE CREEK AREA

4. HUMBOLDT RIVER BASIN

42. MARYS RIVER AREA
43. STARR VALLEY AREA
44. NORTH FORK AREA
45. LAMOILLE V.
46. SOUTH FORK AREA
47. HUNTINGTON V.
48. DIXIE CREEK - TENMILE CREEK AREA
49. ELKO SEGMENT
50. SUSIE CREEK AREA
51. MAGGIE CREEK AREA
52. MARYS CREEK AREA
53. PINE V.
54. CRESCENT V.
55. CARICO LAKE V.
56. UPPER REESE RIVER V.
57. ANTELOPE V.
58. MIDDLE REESE RIVER V.

(CONTINUED)

59. LOWER REESE RIVER V.
60. WHIRLWIND V.
61. BOULDER FLAT
62. ROCK CREEK V.
63. WILLOW CREEK V.
64. CLOVERS AREA
65. PUMPERNICKEL V.
66. KELLY CREEK AREA
67. LITTLE HUMBOLDT V.
68. HARDSCRABBLE AREA
69. PARADISE V.
70. WINNEMUCCA SEGMENT
71. GRASS V.
72. IMLAY AREA
73. LOVELOCK V.
    (A) OREANA SUBAREA
74. WHITE PLAINS

5. WEST CENTRAL REGION

75. BRADY'S HOT SPRINGS AREA
76. FERNLEY AREA
77. FIREBALL V.
78. GRANITE SPRINGS V.
79. KUMIVA V.

6. TRUCKEE RIVER BASIN

80. WINNEMUCCA LAKE V.
81. PYRAMID LAKE V.
82. DODGE FLAT
83. TRACY SEGMENT
84. WARM SPRINGS V.
85. SPANISH SPRINGS V.
86. SUN V.
87. TRUCKEE MEADOWS
88. PLEASANT V.
89. WASHOE V.
90. LAKE TAHOE BASIN
91. TRUCKEE CANYON SEGMENT

7. WESTERN REGION

92. LEMMON V.
    (A) WESTERN PART
    (B) EASTERN PART
93. ANTELOPE V.
94. BEDELL FLAT
95. DRY V.
96. NEWCOMB LAKE V.
97. HONEY LAKE V.
98. SICEDADDLE CREEK V.
99. RED ROCK V.
100. COLD SPRING V.
    (A) LONG V.

8. CARSON RIVER BASIN

101. CARSON DESERT
    (A) PACKARD V.
102. CHURCHILL V.
103. DAYTON V.
104. EAGLE V.
105. CARSON V.

9. WALKER RIVER BASIN

106. ANTELOPE V.
107. SMITH V.
108. MASON V.
109. EAST WALKER AREA
110. WALKER LAKE V.
    (A) SCHURZ SUBAREA
    (B) LAKE SUBAREA
    (C) WHISKEY FLAT-
    HAWTHORNE SUBAREA

10. CENTRAL REGION

111. ALKALAI V. (MINERAL)
    (A) NORTHERN PART
    (B) SOUTHERN PART
112. MONO V.
113. HUNTOON V.
114. TEELS MARSH V.
115. ADOBE V.
116. QUEEN V.
117. FISH LAKE V.
118. COLUMBUS SALT MARSH V.
119. RHODES SALT MARSH V.
120. GARFIELD FLAT
121. SODA SPRING V.
    (A) EASTERN PART
    (B) WESTERN PART
122. GABBS V.
123. RAWHIDE FLATS
124. FAIRVIEW V.
125. STINGAREE V.
126. COWKICK V.
127. EASTGATE VALLEY AREA
128. DIXIE V.
129. BUENA VISTA V.
130. PLEASANT V.
131. BUFFALO V.
132. JERSEY V.
133. EDWARDS CREEK V.
134. SMITH CREEK V.
135. IONE V.
136. MONTE CRISTO V.
137. BIG SMOKY V.
    (A) TONOPAH FLAT
    (B) NORTHERN PART
138. GRASS V.
139. ICOBEH V.
140. MONITOR V.
    (A) NORTHERN PART
    (B) SOUTHERN PART
141. RALSTON V.
142. ALKALAI SPRING V. (ESMERALDA)
143. CLAYTON V.
144. LIDA V.
145. STONEWALL V.
146. SARCOBATUS FLAT
147. GOLD FLAT
148. CACTUS FLAT
149. STONE CABIN V.
150. LITTLE FISH LAKE V.
151. ANTELOPE V. (EUREKA & NYE)
152. STEVENS BASIN
153. DIAMOND V.
154. NEWARK V.
155. LITTLE SMOKY V.
    (A) NORTHERN PART
    (B) CENTRAL PART
    (C) SOUTHERN PART
156. HOT CREEK V.
157. KAWICH V.
158. EMIGRANT V.
    (A) GROOM LAKE V.
    (B) PAPOOSE LAKE V.
159. YUCCA FLAT
160. FRENCHMAN FLAT
161. INDIAN SPRINGS V.
162. PAHRUMP V.
163. MESQUITE V. (SANDY V.)
164. IVANPAH V.
    (A) NORTHERN PART
    (B) SOUTHERN PART
165. JEAN LAKE V.
166. HIDDEN V. (SOUTH)

(CONTINUED)

167. ELDORADO V.
168. THREE LAKES V.
    (NORTHERN PART)
169. TIKAPOO V. (TIKABOO V.)
    (A) NORTHERN PART
    (B) SOUTHERN PART
170. PENOYER V. (SAND SPRING V.)
171. COAL V.
172. GARDEN V.
173. RAILROAD V.
    (A) SOUTHERN PART
    (B) NORTHERN PART
174. JAKES V.
175. LONG V.
176. RUBY V.
177. CLOVER V.
178. BUTTE V.
    (A) NORTHERN PART (ROUND V.)
    (B) SOUTHERN PART
179. STEPTOE V.
180. CAVE V.
181. DRY LAKE V.
182. DELAMAR V.
183. LAKE V.
184. SPRING V.
185. TIPPETT V.
186. ANTELOPE V.
    (WHITE PINE & ELKO)
    (A) SOUTHERN PART
    (B) NORTHERN PART
187. GOSHUTE V.
188. INDEPENDENCE V.

11. GREAT SALT LAKE BASIN

189. THOUSAND SPRINGS V.
    (A) HERRILL SIDING-
    BRUSH CREEK AREA
    (B) TOANO-ROCK SPRING
    AREA
    (C) ROCKY BUTTE AREA
    (D) MONTELLO-
    CRITTENDEN CREEK AREA
    (MONTELLO V.)
190. GROUSE CREEK V.
191. PILOT CREEK V.
192. GREAT SALT LAKE DESERT
193. DEEP CREEK V.
194. PLEASANT V.
195. SNAKE V.
196. HAMLIN V.

12. ESCALANTE DESERT BASIN

197. ESCALANTE DESERT

13. COLORADO RIVER BASIN

198. DRY V.
199. ROSE V.
200. EAGLE V.
201. SPRING V.
202. PATTERSON V.
203. PANACA V.
204. CLOVER V.
205. LOWER MEADOW VALLEY WASH
206. KANE SPRINGS V.
207. WHITE RIVER V.
208. PAHROC V.
209. PAHRANAGAT V.
210. COYOTE SPRING V.
211. THREE LAKES V.
    (SOUTHERN PART)*
212. LAS VEGAS V.

(CONTINUED)

213. COLORADO RIVER V.
214. PIUTE V.
215. BLACK MOUNTAINS AREA
216. GARNET V. (DRY LAKE V.)*
217. HIDDEN V. (NORTH)*
218. CALIFORNIA WASH
219. MUDDY RIVER SPRINGS AREA
    (UPPER MOAPA V.)
220. LOWER MOAPA V.
221. TULE DESERT
222. VIRGIN RIVER V.
223. GOLD BUTTE AREA
224. GREASE WOOD BASIN
    * NON CONTRIBUTING PART OF
    THE COLORADO RIVER BASIN

14. DEATH VALLEY BASIN

225. MERCURY V.
226. ROCK V.
227. PORTYMILE CANYON
    (A) JACKASS FLATS
    (B) BUCKBOARD MESA
228. OASIS V.
229. CRATER FLAT
230. AMARGOSA V.
231. GRAPEVINE CANYON
232. ORIENTAL WASH

Reference: Water for Nevada Report No. 3 October 1971