



**DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES  
DIVISION OF WATER RESOURCES**

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**NOTICE OF INTENT TO ACT UPON A REGULATION  
LCB File No. R068-20  
and Hearing Agenda**

Notice of Hearing for the Adoption, Amendment or Repeal of Regulations of  
The Department of Conservation and Natural Resources, Division of Water Resources

The State of Nevada, Department of Conservation and Natural Resources, Nevada Division of Water Resources ("Division") will hold a public hearing as follows:

DATE: **December 1, 2020**  
TIME: **2:00 p.m.**  
LOCATION: <https://call.lifesizecloud.com/5952200> **OR** (877) 422-8614, Extension 5952200#

NOTE: This meeting will be held via videoconference/teleconference only.\*

\*Pursuant to Governor Sisolak's March 22, 2020 Declaration of Emergency Directive 006, the requirement contained in NRS 241.023(1)(b) that there be a physical location designated for meetings of public bodies where members of the public are permitted to attend and participate is suspended in order to mitigate the possible exposure or transmission of COVID-19 (Coronavirus). Accordingly, anyone planning to participate must participate by using the teleconference number. Meeting materials are available on the Division's website at <http://water.nv.gov>.

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**AGENDA**

1. Open Hearing: R068-20
2. Presentation and Discussion of Proposed Regulation.

**LCB Files No. R068-20.** A regulation relating to water; revising provisions relating to underground water and wells, well drillers and the drilling of wells; and providing other matters properly relating thereto.

3. Public Comment. *The Hearing Officer may limit public comments to 2 minutes per speaker, but may not restrict comments based upon viewpoint. No action may be taken upon a matter raised under the*

*public comment period, unless the matter itself has been specifically included on this Agenda as an action item.*

4. Adjournment.

Note: Any agenda may be taken out of order; items may be pulled or removed from the agenda at any time.

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The purpose of the hearing is to receive comments from all interested persons regarding the Adoption of regulations that pertain to chapter 534 of the Nevada Administrative Code.

The following information is provided pursuant to the requirements of NRS 233B.0603:

**1. Statement of the need for and the purpose of the proposed regulation or amendment:** The Division is proposing to amend NAC 534. Amendments to the existing regulations are proposed to clarify and simplify existing language, and to update descriptions of materials and methods used to reflect current best practices in the water well and related drilling industry.

**2. Description of the proposed regulation:** Proposed regulation relating to water; revising provisions relating to underground water and wells, well drillers and the drilling of wells; and providing other matters properly related thereto. The amendments include:

- a. Definitions;
- b. Licensing, renewal and examination procedures;
- c. Continuing education requirements;
- d. License reinstatement procedure;
- e. Limited licenses;
- f. Duties of well drillers in designated and non-designated basins;
- g. Drilling of domestic wells;
- h. Notice of Intents to drill/plug a well and well driller reports;
- i. Responsibilities of drillers at well drilling sites;
- j. Drilling, construction and pluggings of water wells, monitoring wells and boreholes;
- k. Waivers; and
- l. Enforcement of the regulations and statutes.

**3. The estimated economic effect of the regulation on the business which it is regulate and on the public:** There are no economic effects of the regulation on the business that it regulates and no impact on the public.

**4. The estimated cost to the agency for enforcement of the proposed regulation:** None.

**5. Overlap or duplication of regulations:** None.

**6. Requirement pursuant to Federal law:** None.

**7. If the regulation includes provisions which are more stringent than a federal regulation that regulates the same activity, a summary of such provisions:** None.

**8. New fee or increases an existing fee:** None.

Persons wishing to comment upon the proposed action of the Division may appear via video or teleconference at the scheduled public hearing or may address their comments, data, views, or arguments, in written form, to Shannon McDaniel (SMcDaniel@water.nv.gov), Division of Water Resources, 901 South Stewart Street, Suite 2002, Carson City, Nevada 89701. **Written submissions must be received by the Division on or before November 15, 2020.** If no person who is directly affected by the proposed action appears to request time to make an oral presentation, the Division of Water Resources may proceed immediately to act upon any written submissions.

A copy of this notice and the regulation to be adopted, amended or repealed is available online as follows:

Division of Water Resources website: <http://water.nv.gov>

Nevada Legislature website: <http://leg.state.nv.us>

State of Nevada Public Notice website: <http://notice.nv.gov>

for inspection by members of the public. This notice and the text of the proposed regulation are also available in the State of Nevada Register of Administrative Regulations, which is prepared and published monthly by the Legislative Counsel Bureau pursuant to NRS 233B.0653, and on the Internet at <http://www.leg.state.nv.us>. Copies of this notice and the proposed regulation will also be mailed to members of the public upon request. A reasonable fee may be charged for copies if it is deemed necessary.

Upon adoption of any regulation, the agency, if requested to do so by an interested person, either before adoption or within 30 days thereafter, will issue a concise statement of the principal reasons for and against its adoption and incorporate therein its reason for overruling the consideration urged against its adoption.

This Notice of Intent to Act Upon a Regulation was provided via electronic means as follows:

To all persons on the Division's email list for noticing of administrative regulations

Division of Water Resources website: <http://water.nv.gov>

Nevada Legislature website: <http://leg.state.nv.us>

State of Nevada Public Notice website: <http://notice.nv.gov>

Members of the public who would like additional information about the proposed regulation may contact Shannon McDaniel, via email to [smcdaniel@water.nv.gov](mailto:smcdaniel@water.nv.gov).

Members of the public who are disabled and require special accommodations or assistance at the hearing are requested to notify the Division in writing, no later than five (5) working days before the hearing, via email to [smcdaniel@water.nv.gov](mailto:smcdaniel@water.nv.gov)

DATED this 29th day of October, 2020

/s/ Tim Wilson

Tim Wilson, P.E.

State Engineer

**REVISED PROPOSED REGULATION OF THE  
STATE ENGINEER  
LCB File No. R068-20**

October 22, 2020

EXPLANATION – Matter in *italics* is new; matter in brackets ~~[omitted material]~~ is material to be omitted.

AUTHORITY: §§1-10, 15-32, 44-49, 83 and 84, NRS 534.020 and 534.110; §§11-14 and 75-82, NRS 534.020, 534.050 and 534.110; §§33-43, NRS 534.020, 534.110 and 534.140; §§50 and 51, NRS 534.020, 534.110 and 534.170; §§52-74, NRS 534.020, 534.060 and 534.110.

A REGULATION relating to water; revising provisions relating to underground water and wells, well drillers and the drilling of wells; and providing other matters properly relating thereto.

**Legislative Counsel’s Digest:**

Existing law authorizes the State Engineer to adopt regulations relating to underground water and wells. (NRS 534.020, 534.110)

**Sections 2-8** of this regulation set forth new definitions of terms relating to underground water and wells. **Sections 16-32** of this regulation revise existing definitions relating to underground water and wells.

Existing regulations define “borehole” as a penetration in the ground that is made to obtain geologic, geophysical or geotechnical information or for any purpose other than for use as a well. (NAC 534.047) **Section 3** of this regulation defines the term “geotechnical soil boring” to mean a penetration in the ground that is made to obtain geologic, geophysical or geotechnical information and **section 17** of this regulation amends the definition of “borehole” to be a penetration in the ground made during the process of drilling a well. **Sections 26 and 70-74** of this regulation replace the term “borehole” with “geotechnical soil boring.” **Sections 16, 18, 20, 29, 52, 55-57, 59, 61, 65-67, 69 and 73** of this regulation replace the term “well bore” with “borehole.”

Existing law authorizes the State Engineer to require the dedication or relinquishment of a right to appropriate water in connection with the approval of a parcel map. (NRS 534.120) **Section 9** of this regulation provides that if a right to appropriate water has been dedicated in

connection with the approval of a subdivision, a well for domestic use may be drilled if: (1) at least 2 acre-feet per year from the water right is relinquished to the State Engineer; and (2) the water right is in good standing.

**Section 10** of this regulation authorizes, under certain circumstances, the owner of an existing nondomestic well to convert the well to a domestic well.

Existing law authorizes the State Engineer to issue a waiver from certain requirements relating to the drilling and plugging of wells. (NRS 534.050, 534.060) **Section 11** of this regulation provides that work related to a request for a waiver may not proceed until the State Engineer approves the waiver. **Section 12** of this regulation sets forth the requirements for a person to request a waiver to drill or rehabilitate a domestic well in an area in which water is furnished by an entity. **Section 13** of this regulation sets forth the requirements for a person to request a waiver to drill a drain well in a shallow groundwater system. **Section 14** of this regulation authorizes the State Engineer to extend an existing waiver and sets forth the requirements to obtain such an extension. **Sections 75-82** of this regulation revise the existing requirements for obtaining certain waivers.

Existing regulations prohibit a well driller from drilling 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. (NAC 534.300) **Section 44** of this regulation creates an exception to this prohibition if the appropriate waiver has been issued.

Existing regulations authorize a well driller to drill a well regardless of whether the owner of the property has a permit to appropriate water in basins which have not been designated by the State Engineer. (NAC 534.310) **Section 45** of this regulation requires that if the well will be located on public land, before the well driller may drill such a well, the person responsible for plugging the well must file with the Division of Water Resources of the State Department of Conservation and Natural Resources a notarized affidavit acknowledging such responsibility.

Under existing regulations, “rehabilitation” is defined to mean revitalizing an existing well using methods that do not cause a significant change in the design or construction of the well and “reconditioning” is defined to mean various actions that result in significant changes to an existing well. (NAC 534.188, 534.189) **Sections 27 and 28** of this regulation switch the meaning of these terms such that “rehabilitation” means making material changes to the design or construction of a well and “reconditioning” means making changes to a well that are not material. **Sections 46, 47, 49, 50 and 83** of this regulation make conforming changes.

Existing law requires every well driller engaged in drilling a well for the development of water to apply annually to the State Engineer for a license to drill. (NRS 534.140) Existing regulations set forth requirements for a license to drill, including passing a two-part examination. (NAC 534.280-534.294) **Section 33** of this regulation requires that an applicant must provide with his or her application at least four professional references and evidence that he or she has 2

or more years of full-time experience that have been acquired during the previous 5 years. **Section 36** of this regulation provides that the Well Drillers' Advisory Board is not required to conduct an oral examination for an applicant who has not submitted with his or her application the four professional references or proof of such experience to the satisfaction of the State Engineer. **Section 34** of this regulation provides that the State Engineer will deny an application if the applicant reschedules either the written or oral part of the examination more than twice. **Section 35** of this regulation provides that the oral examination will also require an applicant to demonstrate proficiency in the operating procedures and construction methods associated with various types of well drilling equipment.

Existing regulations set forth certain requirements for renewing a well driller's license. (NAC 534.292, 534.2923, 534.2925) **Section 38** of this regulation eliminates the requirement that the Division of Water Resources mail a notice to renew to the applicant approximately 30 days before the applicant's license will expire and instead requires the Division to send a notice to renew to the applicant before the license expires. **Section 39** of this regulation revises the continuing education courses offered by the Division that a well driller must complete to renew a license. **Section 40** of this regulation eliminates the requirement for the Division to hold a hearing before refusing to renew a license to drill for certain causes.

**Section 41** of this regulation provides that the Division may allow a well driller to defer the completion of his or her continuing education hours under certain circumstances.

**Section 42** of this regulation revises the requirements for a well driller to reinstate an expired well driller's license.

**Section 43** of this regulation revises requirements for a limited well-drilling license.

**Sections 47 and 48** of this regulation revise various provisions relating to a notice of intent, including requiring a well driller to notify the Division 24 hours before work will commence at a drilling site.

Existing regulations requires a licensed well driller to be present at a well-drilling site when drilling operations are occurring. (NAC 534.330) **Section 49** of this regulation requires, instead, a licensed well driller to directly supervise the well-drilling site when drilling operations are occurring. **Section 49** also provides that the Division may shut down drilling at a well-drilling site if a licensed well driller is not directly supervising the site or if the drilling operations are in violation of any other provision of the chapter governing underground water and wells. **Section 2** of this regulation defines the term "directly supervise." **Section 51** of this regulation makes conforming changes.

Existing regulations set forth various requirements for the drilling, construction and plugging of wells and boreholes. (NAC 534.358-534.438) **Sections 52 and 53** of this regulation revise various requirements for casing a well. **Sections 53 and 54** of this regulation revise certain

standards adopted by reference relating to wells. **Section 56** of this regulation provides that if bentonite chips are used when addressing an artesian condition in a well, the chips must be placed in accordance with the manufacturer's specifications. **Sections 57 and 58** of this regulation revise various provisions relating to sealing a well. **Section 59** of this regulation revises requirements for plugging a well.

Existing regulation sets forth the party responsible for plugging a well. (NAC 534.424) **Section 60** of this regulation revises the person responsible for plugging a well on public land to provide that if there is a notarized affidavit on file with the Division acknowledging responsibility to plug the well, the person who made the acknowledgment is responsible.

**Section 62** of this regulation provides that if a well is located in a nondesignated basin and the owner of the well does not apply for a permit or waiver within 1 year after the well is completed, the well must be plugged.

**Section 63** of this regulation revises requirements for access ports in a well.

**Section 65** of this regulation revises requirements for the installation of casing in a monitoring well. **Section 68** of this regulation establishes certain requirements for the surface pad of a monitoring well. **Section 69** of this regulation revises requirements for plugging a monitoring well.

**Section 71** of this regulation sets forth the requirements for plugging a geotechnical soil boring.

Under existing regulations, the Division must assess demerit points against the license of a well driller for violating various requirements. (NAC 534.500) **Section 83** of this regulation revises the maximum demerit points that may be assessed for certain violations. **Section 83** also provides that if a well driller does not receive any demerit points against his or her license for 4 years, any previously assessed demerits will be removed.

**Section 1.** Chapter 534 of NAC is hereby amended by adding thereto the provisions set forth as sections 2 to 14, inclusive, of this regulation.

**Sec. 2.** *“Directly supervise” means that the licensed well driller is:*

*1. Present at the well-drilling site when the drill rig is in operation and when any activity involving the construction, reconditioning, sealing or plugging of the well is conducted;*

2. *Able to respond quickly to the needs of the client or any person under the supervision of the well driller, if necessary; and*

3. *Able to take control of the drilling equipment, if necessary.*

**Sec. 3.** *“Geotechnical soil boring” means a penetration in the ground that is made to obtain geologic, geophysical or geotechnical information or properties of the subsurface relating to engineering. The term does not include a penetration in the ground that is made for a well.*

**Sec. 4.** *“Liner pipe” means a pipe made of steel or plastic which is:*

1. *Smaller in diameter than the installed casing of a well; and*

2. *Used to reconstruct or deepen a well or to strengthen unstable conditions encountered at depth within a well.*

**Sec. 5.** *“Pressure grouting” means a process by which:*

1. *Grout is confined within a borehole or casing through the use of retaining plugs or packers; and*

2. *Sufficient pressure is applied to drive the grout slurry into the annular space or zone that is being grouted.*

**Sec. 6.** *“Tremie pipe” means a device that carries materials, including, without limitation, seal material, gravel pack or formation stabilizer, to a designated depth in a borehole or an annular space.*

**Sec. 7.** *“Uncontaminated fill” means a material that does not contain contaminants in concentrations that pose a threat to human health and safety or the environment.*



**Sec. 8.** *“Well-drilling site,” “drill site” or “drilling site” means the physical location at which a well is drilled, plugged or rehabilitated.*

**Sec. 9.** *1. If a right to appropriate water has been dedicated to a subdivision or has been acquired with the intent to serve a subdivision, a well may be drilled for domestic use if:*

*(a) At least 2 acre-feet per year of water is relinquished to the State Engineer for reversion to the source of the water. If the water right dedicated or acquired to serve the parcel of land is for less than 2 acre-feet per year, all or a portion of another water right must be relinquished to the State Engineer for reversion to the source of the water so that the total amount relinquished for the domestic well is 2 acre-feet.*

*(b) The State Engineer determines that:*

*(1) The water right or rights, as applicable, is in good standing; and*

*(2) The drilling of the well for domestic use is not detrimental to the public interest.*

*2. Every right to appropriate water that is relinquished pursuant to subsection 1:*

*(a) Remains appurtenant to the parcel of land on which the well for domestic use is located, as specified on the parcel map; and*

*(b) Maintains its date of priority established pursuant to NRS 534.080.*

**Sec. 10.** *1. An owner of an existing nondomestic well may submit to the State Engineer an application to convert the well to a well for domestic use. An application to convert a well for domestic use must be on a form provided by the State Engineer.*

*2. If the application to convert a well for domestic use is approved by the State Engineer:*

*(a) The owner must:*

*(1) Install a water meter capable of measuring the total withdrawal of water from the well for domestic use before the well is used for such purpose;*

*(2) Ensure that the total withdrawal of water from the well for domestic use does not exceed 2 acre-feet per year; and*

*(3) Keep monthly records of the amount of water pumped from the well for domestic use and submit such records to the State Engineer not later than February 15th of each year.*

*3. The State Engineer shall monitor the annual withdrawal of water from every well that has been converted for domestic use pursuant to this section.*

*4. A well that has been converted for domestic use pursuant to this section may have a casing size larger than 8.625 inches in diameter.*

*5. The date of completion of a well that has been converted for domestic use pursuant to this section for purposes of determining the date of priority of the well pursuant to subsection 4 of NRS 534.080 shall be deemed to be the date on which the State Engineer approves the conversion of the well for domestic use.*

**Sec. 11. 1.** *Except as otherwise provided in NAC 534.310, any work related to a waiver requested pursuant to NAC 534.440 to 534.450, inclusive, and sections 11 to 14, inclusive, of this regulation must not proceed until the State Engineer grants written approval of the waiver.*

*2. If a waiver is approved by the State Engineer pursuant to NAC 534.440 to 534.450, inclusive, and sections 11 to 14, inclusive, of this regulation, the waiver is subject to the terms and conditions set forth in the approval of the waiver. The issuance of a waiver does not waive the requirements of any other federal or state agency or local government.*

*3. Notwithstanding the provisions of NAC 534.440 to 534.450, inclusive, and sections 11 to 14, inclusive, of this regulation, in the event of a public health emergency or other exceptional circumstance, a person may verbally request a waiver from the Division. If the State Engineer approves the waiver, the application for a waiver and the fees required pursuant to NAC 534.440 to 534.450, inclusive, and sections 11 to 14, inclusive, of this regulation must be submitted to the Division within 3 business days after the approval of the waiver is granted.*

*4. As used in this section, “public health emergency or other exceptional circumstance” does not include the convenience of the applicant.*

**Sec. 12.** *1. Except as otherwise provided in subsection 4, a person may submit a request for a waiver to drill or rehabilitate a domestic well in an area in which water service is available from an entity, including, without limitation, a public utility, water district or municipality. The request for a waiver must be submitted to the State Engineer in writing, accompanied by the fee required pursuant to NRS 533.435 and include, without limitation:*

*(a) The location of the proposed domestic well by public land survey, GPS coordinates and the county assessor’s parcel number;*

*(b) A letter from the water purveyor stating:*

*(1) Whether the property can legally and physically receive water service;*

*(2) The improvements and costs associated with providing water service to the property;*

*and*

*(3) An estimated time in which water service can be provided to the property;*

*(c) A letter from the drilling contractor stating:*

- (1) The costs associated with drilling or rehabilitating the domestic well;*
  - (2) An estimated time of completion for the drilling or rehabilitation of the domestic well;*
  - (3) The name, address and telephone number of the owner of the land on which the domestic well is or will be located; and*
  - (4) The reason for requesting the waiver; and*
- (d) If a waiver is requested for multiple domestic wells, a list and the required information for all domestic wells for which a waiver is requested on the “Additional Well Locations” form.*

*2. A domestic well for which a waiver has been granted pursuant to this section must be drilled or rehabilitated within 1 year after the date that the waiver is approved.*

*3. A waiver granted pursuant to this section will bear a unique number preceded by the letters “DOM.” The notice of intent submitted to the Division pursuant to NAC 534.320 and the Well Driller’s Report submitted to the State Engineer pursuant to NRS 534.170 and NAC 534.340 must bear this number.*

*4. This section does not apply to any groundwater basin for which the State Engineer has in effect a procedure of issuing revocable permits.*

**Sec. 13. 1.** *A request for a waiver to drill a drain well in a shallow groundwater system for removing water to depressurize the earth and alleviating potential hazards to persons and property during mining activities must be submitted to the State Engineer in writing, accompanied by the fee required pursuant to NRS 533.435 and include, without limitation:*

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

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

*(c) The estimated amount of water that will be used from the proposed drain well each day;*

*(d) A proposed construction sketch and plugging plan for the drain well;*

*(e) The name of the proposed drain well;*

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

*(g) If the drain well will be located on public land, a notarized affidavit, on a form prescribed by the Division, signed by the person who will be responsible for plugging the drain well upon abandonment acknowledging that responsibility;*

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

*(i) The date the project is scheduled to be completed; and*

*(j) If a waiver is requested for multiple drain wells, a list and the required information for all drain wells for which the waiver is requested on the "Additional Well Locations" form.*

*2. A waiver to drill a drain well will bear a unique number preceded by the letters "DR." The notice of intent to drill submitted to the Division pursuant to NAC 534.320 and the Well Driller's Report submitted to the State Engineer pursuant to NRS 534.170 and NAC 534.340 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 drain 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 the expiration of the waiver, whichever occurs first. For purposes of this subsection, “expiration of the waiver” means the date on which the waiver is permanently expired pursuant to subsection 5 of section 14 of this regulation.*
5. *The water from the drain 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 any existing water right or domestic well.*
8. *A waiver granted in accordance with this section is valid for up to 1 year after the date on which the waiver is approved and may be extended pursuant to section 14 of this regulation.*

**Sec. 14. 1.** *The State Engineer may, for good cause shown, grant an extension of the time in which a waiver granted pursuant to any of the provisions of NAC 534.440 to 534.449, inclusive, or section 13 of this regulation, is valid. The State Engineer may grant any number of extensions but, except as otherwise provided in this subsection, a single extension of time must not exceed 1 year. If the applicant for an extension of a waiver demonstrates to the satisfaction of the State Engineer that the applicant has sufficient need for an extension that*

*exceeds 1 year, the State Engineer may grant an extension of a waiver for not more than 5 years.*

*2. A request for an extension of a waiver made pursuant to this section must be:*

*(a) Submitted to the State Engineer on a form prescribed by the Division within 30 days before the waiver is set to expire; and*

*(b) Accompanied by proof demonstrating sufficient need for the extension of time.*

*3. A person may file a single request for an extension of time pursuant to this section for all waivers of the same type held by that person.*

*4. The State Engineer will not grant an extension of time unless the State Engineer determines that the proof submitted by the applicant demonstrates sufficient need for the extension. The failure to provide any proof is prima facie evidence that the applicant has not demonstrated sufficient need for the extension.*

*5. If a person does not file a request for an extension of time for a waiver within 30 days after the waiver expires, the State Engineer will notify the holder of the waiver, by registered or certified mail, that the person has 30 days from the date the notice was mailed to file a request for an extension of time for a waiver pursuant to this section or the waiver will be permanently expired.*

**Sec. 15.** NAC 534.010 is hereby amended to read as follows:

534.010 As used in this chapter, unless the context otherwise requires, the words and terms defined in NAC 534.015 to 534.245, inclusive, *and sections 2 to 8, inclusive, of this regulation* have the meanings ascribed to them in those sections.

**Sec. 16.** NAC 534.020 is hereby amended to read as follows:

534.020 “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}~~ *borehole* and the casing.

**Sec. 17.** NAC 534.047 is hereby amended to read as follows:

534.047 “Borehole” means a penetration in the ground *made in the drilling process* that is deeper than the longest dimension of ~~{its}~~ *the* 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.}~~

**Sec. 18.** NAC 534.048 is hereby amended to read as follows:

534.048 “Bridge” means an obstruction in the ~~{well bore or}~~ annular space of a borehole or well caused when the walls of the ~~{well bore}~~ *borehole* collapse or when materials are jammed or wedged into the ~~{well bore}~~ *borehole* or annular space.

**Sec. 19.** NAC 534.065 is hereby amended to read as follows:

534.065 “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}~~ *is produced by adding unbeneficiated bentonite to neat cement grout and consists* of ~~{a range of water to cement to}~~ :

*1. A maximum of 4 percent unbeneficiated 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}~~ *(not enhanced, high-yield bentonite); and*



2. *A mixture of water and cement in a ratio of not more than 5.2 gallons of water per 94-pound bag of portland cement with ~~[25 pounds]~~ an additional 0.65 gallons of water per sack of cement for each 1 percent 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<sup>-7</sup> 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.~~

↪ *The bentonite may be mixed with the water before adding the dry cement if it is not possible to blend the cement and bentonite.*

Sec. 20. NAC 534.080 is hereby amended to read as follows:

534.080 “Conductor casing” means the temporary or permanent casing used in the upper portion of the ~~[well bore]~~ *borehole* 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.]~~

Sec. 21. NAC 534.100 is hereby amended to read as follows:

534.100 “Division” means the Division of Water Resources of the State Department of Conservation and Natural Resources. *The term is synonymous with the Office of the State Engineer.*

Sec. 22. NAC 534.113 is hereby amended to read as follows:

534.113 “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.

Sec. 23. NAC 534.120 is hereby amended to read as follows:

534.120 “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 ~~{}~~ *in an unproven area.*

**Sec. 24.** NAC 534.148 is hereby amended to read as follows:

534.148 “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,}~~ a 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.

**Sec. 25.** NAC 534.150 is hereby amended to read as follows:

534.150 “Neat cement” means a mixture of ~~{}~~  
~~—1.—Clean}~~ *clean* water and cement in a ratio of not more than ~~{5.2}~~ 6 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).}~~

**Sec. 26.** NAC 534.183 is hereby amended to read as follows:

534.183 “Plug” means the procedure in which a well or ~~{borehole}~~ *geotechnical soil boring* is sealed . ~~{after it is abandoned.}~~

**Sec. 27.** NAC 534.188 is hereby amended to read as follows:

534.188 “Reconditioning” means the ~~{deepening, reaming, casing, recasing, perforating, re-perforating, installing of liner pipe, packers and seals or any other significant}~~ *process of*

*revitalizing an existing well by various methods that do not cause a material* change in the design or construction of ~~[a water]~~ *the well* ~~[.]~~ *including, without limitation, chemical treatment, brush cleaning, surging and high-pressure jetting.*

**Sec. 28.** NAC 534.189 is hereby amended to read as follows:

534.189 “Rehabilitation” means ~~[the process of revitalizing]~~ *a material change in the design or construction of* 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-]~~ *deepening, hydrofracturing, recasing, perforating, the permanent installation of packers or seals, the installation of casing, resealing, installing or modifying liner pipe or reaming or underreaming the borehole.*

**Sec. 29.** NAC 534.190 is hereby amended to read as follows:

534.190 “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]~~ *borehole* 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.

**Sec. 30.** NAC 534.195 is hereby amended to read as follows:

534.195 “Static water level” means the stabilized level or elevation of the surface of the water in a well , ~~[or]~~ *borehole or geotechnical soil boring* that is not being pumped and is not affected by the pumping of other wells . ~~[or boreholes.]~~

**Sec. 31.** NAC 534.243 is hereby amended to read as follows:

534.243 “Well Driller’s Report” means the log and record of work for a drilled, ~~for~~ plugged *or rehabilitated* well required to be submitted to the State Engineer pursuant to NRS 534.170 and NAC 534.340.

**Sec. 32.** NAC 534.245 is hereby amended to read as follows:

534.245 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~~ *drilling, plugging* and rehabilitation of a well.

**Sec. 33.** NAC 534.280 is hereby amended to read as follows:

534.280 An application for a well-drilling license must be submitted to the Division. ~~in person or by mail.~~ The application:

1. Must ~~be~~:

(a) *Be* completed and signed by the applicant on a form provided by the Division. ~~;~~

~~2.—Must be~~

(b) *Be accompanied by evidence that the applicant has at least 2 years of full-time experience acquired during the immediately preceding 5 years. The State Engineer will determine whether such experience is satisfactory and appropriate for the type of license for which the applicant is applying.*

(c) *Be accompanied by at least four professional references. The State Engineer will determine whether such references are satisfactory and appropriate for the type of license for which the applicant is applying.*

(d) *Include any other information requested by the State Engineer.*

(e) *Be accompanied by the fee prescribed in NRS 534.140 . ~~[-; and~~*

~~3.] 2.~~ *Is valid for 1 year after the date of submission of the application ~~[-] unless the applicant fails any part of the examination required pursuant to NAC 534.282.~~*

**Sec. 34.** NAC 534.282 is hereby amended to read as follows:

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

(a) Be at least 18 years of age; *and*

(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]~~ *a two-part* 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;~~ *Reschedules the written or oral examination more than twice;* or

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

**Sec. 35.** NAC 534.286 is hereby amended to read as follows:

534.286 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 *and equipment* used for well drilling; and
4. Ability to resolve problems that may arise during the construction, plugging, development or testing of a well.

**Sec. 36.** NAC 534.288 is hereby amended to read as follows:

534.288 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}~~ *Who receives* a score of less than 80 percent on the written test portion of the written examination; ~~{or}~~
2. ~~{Is}~~ *Who is* unable to demonstrate his or her ability to locate a well by public land survey on a topographic map ~~{:}~~; *or*
3. *If the State Engineer finds that the applicant's experience or professional references required pursuant to NAC 534.280 are not satisfactory or appropriate for the type of license for which the applicant is applying.*

**Sec. 37.** NAC 534.290 is hereby amended to read as follows:

534.290 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~~ *may* 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.

**Sec. 38.** NAC 534.292 is hereby amended to read as follows:

534.292 1. The Division ~~will~~ *shall* 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.

**Sec. 39.** NAC 534.2923 is hereby amended to read as follows:

534.2923 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.]~~ *during the current licensing period.* At least once within two consecutive *licensing* renewal periods, the units of continuing education completed by an applicant must include the successful completion of the ~~[following courses]~~ *course* 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.”]~~

**Sec. 40.** NAC 534.2925 is hereby amended to read as follows:

534.2925 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, *plugged or rehabilitated* 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.

**Sec. 41.** NAC 534.2927 is hereby amended to read as follows:

534.2927 1. A credit unit of continuing education is earned for each hour the ~~[holder of a well-drilling license]~~ *person* 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 *or allow a well driller to defer the completion of* 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.

**Sec. 42.** NAC 534.293 is hereby amended to read as follows:

534.293 To reinstate a license, a well driller whose license has been:

1. Expired for 1 year or less must:

(a) File a ~~new~~ *renewal* application *pursuant to NAC 534.2923* with the *renewal* fee required by NRS 534.140;

(b) Pass the examination required by NAC 534.282 or petition the Division *in writing* for ~~and receive~~ *an exemption* 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 ~~and~~; *and*

*(d) Provide documentation satisfactory to the Division that the well driller has completed the eight credit units of continuing education required pursuant to subsection 3 of NAC 534.2923, unless the well driller receives an exemption or deferral from the Division pursuant to subsection 4 of NAC 534.2927. The eight credit units of continuing education must have been earned:*

*(1) During the most recent licensing period during which the license of the well driller was active; or*

***(2) During the time the license of the well driller was expired.***

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

(a) File a new application *for a well-drilling license* 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.

**Sec. 43.** NAC 534.294 is hereby amended to read as follows:

534.294 1. A well-drilling license authorizes the licensee to drill , ~~or~~ plug *or rehabilitate* the following types of wells:

(a) Water wells; *and*

(b) Monitoring wells . ~~;~~ *and*

~~—(c) Geothermal wells.]~~

2. The State Engineer may issue ~~restricted~~ *limited* 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~~ *limited* well-drilling license, the well driller ~~[may submit a written request to the Division to appear before the Board for further examination.]~~ *must:*

*(a) File a new application for a well-drilling license and submit the required license fee pursuant to NAC 534.280;*

*(b) Pass the examination required pursuant to NAC 534.282 or petition the Division in writing for an exemption from the requirement to pass the examination; and*

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

**Sec. 44.** NAC 534.300 is hereby amended to read as follows:

534.300 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 ~~[ ]~~ *or the appropriate waiver has been issued pursuant to NAC 534.440 to 534.450, inclusive, and sections 11 to 14, inclusive, of this regulation.*

2. Except as otherwise provided in subsections 3 ~~[, 5 and 6,]~~ *and 5*, 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]~~ :

*(a) 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]~~

*(b) Will* be made of the existing well, ~~[or the well owner does not want to plug the existing well,]~~ a permit *or waiver* must be issued for the ~~[replacement]~~ *existing* 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.]~~ *pursuant to NRS 534.065.* 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,]~~ *section 12 of this regulation,* 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.] State Engineer.~~

**Sec. 45.** NAC 534.310 is hereby amended to read as follows:

534.310 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 *or a waiver* does so at the risk that a permit to appropriate water *or a waiver* 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. ~~Has~~ *Except as otherwise provided in this subsection, 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 ~~is~~ *or a waiver. If the well will be located on public land, before the well driller may drill the well, a notarized affidavit must be filed with the Division on a form prescribed by the Division by the person responsible for plugging the well upon abandonment acknowledging that the person is responsible for plugging the well.*

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.]~~ *pursuant to NRS 534.065.* 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, if *the owner of the property has not applied for a permit to appropriate water or a waiver* ~~is required before any diversion of water may be made for any~~ *within 1 year after the date the well is completed, the well* ~~is~~

~~—(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.]~~ *must be plugged as required by NAC 534.427.*

**Sec. 46.** NAC 534.315 is hereby amended to read as follows:

- 534.315 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]~~ *Except as otherwise provided in section 10 of this regulation, 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 *or converted* for domestic use cannot be ~~[reconditioned, a]~~ *rehabilitated:*
- (a) A replacement well may be drilled ~~[if]~~ ; *and*
- (b) *If a replacement well is drilled,* the original well ~~[is]~~ *must be* plugged as required by NAC 534.420 ~~[before the equipment used for well drilling is moved from the drilling site.]~~ *not later than 60 days after the date the drilling of the replacement well is completed.*

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,~~ *rehabilitated*, or replaced unless a waiver from the provisions of this section is first obtained from the Division ~~and~~ *pursuant to section 12 of this regulation.*

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.

**Sec. 47.** NAC 534.320 is hereby amended to read as follows:

534.320 1. Except as otherwise provided in subsection 2, *before* a well driller ~~shall not~~ *may* set up a well rig or commence drilling, ~~or~~ *plugging or rehabilitating* a well, ~~until~~ the well driller ~~has submitted~~ *must*:

(a) *Submit* to the Division a notice of intent ~~to drill and~~ *in accordance with the requirements of this section; and*

(b) *Receive* the *approval of the* Division ~~has approved~~ *for* the notice of intent. ~~to drill.~~ *All work performed by the well driller is subject to the terms of approval for the notice of intent issued by the Division.*

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~~ *reconditioning* 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 parcel size*, 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~~ *a qualified person who is named on the contractor's license* 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 , *rehabilitating* 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}~~ *must* 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 *or rehabilitated* 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 *or rehabilitated* 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.

**Sec. 48.** NAC 534.325 is hereby amended to read as follows:

534.325 1. If the drilling , ~~or~~ plugging *or rehabilitation* 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]~~ *or by the date listed on the notice of intent on which work is to commence, whichever is later*, 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]~~ *and be accompanied by the fee required pursuant to NRS 533.435.*

2. ~~[The]~~ *After the Division receives and approves the new notice of intent, the* well driller *must notify the Division in writing at least 24 hours before the work will commence and then the well driller* may set up the drill rig and commence drilling , ~~or~~ plugging *or rehabilitating* 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.

**Sec. 49.** NAC 534.330 is hereby amended to read as follows:

534.330 *1.* A well driller licensed by the State Engineer:

~~[1.— Must be present at]~~

*(a) Shall directly supervise* the well-drilling site when the drill rig is in operation and when any activity involving the construction, ~~[reconditioning]~~ *rehabilitation* 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 *drilling* 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.]~~ (b) Shall ensure that the drilling of the well complies with:

~~[(a)]~~ (1) The provisions of this chapter; *and*

~~[(b)]~~ (2) 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)]~~ (d) 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.

*2. The Division may order the drilling operation to cease and conduct an investigation if the Division determines that:*

*(a) Drilling operations occurred during any period in which a licensed well driller was not directly supervising the well-drilling site; or*

*(b) The drilling operation is in violation of any provision of this chapter.*

*↪ The drilling operation may not recommence until the Division so approves.*

**Sec. 50.** NAC 534.340 is hereby amended to read as follows:

534.340 1. A Well Driller's Report must be submitted to the State Engineer within 30 days after the completion of the drilling, ~~[or]~~ *or rehabilitation* 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~~ *reconditioning* 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.

**Sec. 51.** NAC 534.345 is hereby amended to read as follows:

534.345 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~~ *directly supervising* the well-drilling site as required pursuant to NAC 534.330; ~~or~~

(b) *The licensed well driller who is responsible for the work; or*

(c) The ~~drilling~~ *licensed* contractor *who is* 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}~~ *may* 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.

**Sec. 52.** NAC 534.360 is hereby amended to read as follows:

534.360 1. Except as otherwise provided in subsection 2, all wells must be ~~feased to the bottom of the well bore~~ :

*(a) Cased to 10 feet or 2 percent of the total depth drilled, whichever is greater;*

*(b) Resistant to the corrosive effects of the surrounding formations, earth and fluid;* and ~~constructed~~

*(c) Constructed* to prevent contamination or waste of the groundwater.

2. If no additional water is developed in the bottom portion of a ~~{well bore,}~~ *borehole*, neat cement, cement grout or concrete grout must be placed by tremie pipe in an upward direction from the bottom of the ~~{well bore}~~ *borehole* 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. *No holes may be cut in the casing walls for lifting and lowering into the borehole.*

5. The thickness of the wall of the *production* casing must ~~be~~:

~~(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]~~ *meet the following standards for minimum thickness for steel well casing:*

<i>Minimum thickness for steel well casing</i>												
<i>Depth of casing (feet)</i>	<i>Nominal diameter of casing (inches)</i>											
	<i>6</i>	<i>8</i>	<i>10</i>	<i>12</i>	<i>14</i>	<i>16</i>	<i>18</i>	<i>20</i>	<i>22</i>	<i>24</i>	<i>30</i>	
<i>0-100</i>	<i>3/16 (0.188)</i>	<i>3/16 (0.188)</i>	<i>1/4 (0.25)</i>	<i>1/4 (0.25)</i>	<i>1/4 (0.25)</i>	<i>1/4 (0.25)</i>	<i>1/4 (0.25)</i>	<i>1/4 (0.25)</i>	<i>1/4 (0.25)</i>	<i>5/16 (0.3125)</i>	<i>5/16 (0.3125)</i>	<i>5/16 (0.3125)</i>
<i>100-200</i>	<i>3/16 (0.188)</i>	<i>3/16 (0.188)</i>	<i>1/4 (0.25)</i>	<i>1/4 (0.25)</i>	<i>1/4 (0.25)</i>	<i>1/4 (0.25)</i>	<i>1/4 (0.25)</i>	<i>1/4 (0.25)</i>	<i>1/4 (0.25)</i>	<i>5/16 (0.3125)</i>	<i>5/16 (0.3125)</i>	<i>5/16 (0.3125)</i>
<i>200- 300</i>	<i>3/16 (0.188)</i>	<i>3/16 (0.188)</i>	<i>1/4 (0.25)</i>	<i>1/4 (0.25)</i>	<i>1/4 (0.25)</i>	<i>1/4 (0.25)</i>	<i>5/16 (0.3125)</i>	<i>5/16 (0.3125)</i>	<i>5/16 (0.3125)</i>	<i>5/16 (0.3125)</i>	<i>5/16 (0.3125)</i>	<i>3/8 (0.375)</i>
<i>300-400</i>	<i>3/16 (0.188)</i>	<i>1/4 (0.25)</i>	<i>1/4 (0.25)</i>	<i>1/4 (0.25)</i>	<i>1/4 (0.25)</i>	<i>5/16 (0.3125)</i>	<i>5/16 (0.3125)</i>	<i>5/16 (0.3125)</i>	<i>5/16 (0.3125)</i>	<i>5/16 (0.3125)</i>	<i>3/8 (0.375)</i>	<i>3/8 (0.375)</i>
<i>400-600</i>	<i>3/16</i>	<i>1/4</i>	<i>1/4</i>	<i>1/4</i>	<i>1/4</i>	<i>5/16</i>	<i>5/16</i>	<i>5/16</i>	<i>5/16</i>	<i>3/8</i>	<i>3/8</i>	<i>7/16</i>

	<i>(0.188)</i>	<i>(0.25)</i>	<i>(0.25)</i>	<i>(0.25)</i>	<i>(0.25)</i>	<i>(0.3125)</i>	<i>(0.3125)</i>	<i>(0.3125)</i>	<i>(0.375)</i>	<i>(0.375)</i>	<i>(0.4375)</i>
<i>600-800</i>	<i>3/16</i>	<i>1/4</i>	<i>1/4</i>	<i>1/4</i>	<i>5/16</i>	<i>5/16</i>	<i>5/16</i>	<i>3/8</i>	<i>3/8</i>	<i>3/8</i>	<i>7/16</i>
	<i>(0.188)</i>	<i>(0.25)</i>	<i>(0.25)</i>	<i>(0.25)</i>	<i>(0.3125)</i>	<i>(0.3125)</i>	<i>(0.3125)</i>	<i>(0.375)</i>	<i>(0.375)</i>	<i>(0.375)</i>	<i>(0.4375)</i>
<i>800-1,000</i>	<i>3/16</i>	<i>1/4</i>	<i>1/4</i>	<i>1/4</i>	<i>5/16</i>	<i>5/16</i>	<i>5/16</i>	<i>3/8</i>	<i>7/16</i>	<i>7/16</i>	<i>1/2</i>
	<i>(0.188)</i>	<i>(0.25)</i>	<i>(0.25)</i>	<i>(0.25)</i>	<i>(0.3125)</i>	<i>(0.3125)</i>	<i>(0.3125)</i>	<i>(0.375)</i>	<i>(0.4375)</i>	<i>(0.4375)</i>	<i>(0.50)</i>
<i>1,000-1,500</i>	<i>3/16</i>	<i>1/4</i>	<i>5/16</i>	<i>5/16</i>	<i>5/16</i>	<i>3/8</i>	<i>3/8</i>	<i>3/8</i>	<i>7/16</i>	*	*
	<i>(0.188)</i>	<i>(0.25)</i>	<i>(0.3125)</i>	<i>(0.3125)</i>	<i>(0.3125)</i>	<i>(0.375)</i>	<i>(0.375)</i>	<i>(0.375)</i>	<i>(0.4375)</i>		
<i>1,500-2,000</i>	<i>3/16</i>	<i>1/4</i>	<i>5/16</i>	<i>5/16</i>	<i>5/16</i>	<i>3/8</i>	<i>3/8</i>	<i>7/16</i>	<i>7/16</i>	*	*
	<i>(0.188)</i>	<i>(0.25)</i>	<i>(0.3125)</i>	<i>(0.3125)</i>	<i>(0.3125)</i>	<i>(0.375)</i>	<i>(0.375)</i>	<i>(0.4375)</i>	<i>(0.4375)</i>		
<i>* Refer to sections 4.4.5 of the American Water Works Association Standard A100-15, as adopted by reference in subsection 6, regarding the thickness of well casings.</i>											

*6. For the purpose of subsection 5, section 4.4.5 of the American Water Works Association Standard ~~[A100-06, which]~~ A100-15 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.]~~ \$115.*

*7. 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.]~~ 8. 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 ~~]~~ *and be equal to or greater than the casing thickness*. Spot welds of casing joints are prohibited.

~~7.]~~ 9. *In a production well, no perforated or screened section may be placed above the static water level.*

10. *Inner casing installed in a well must extend or telescope at least 8 feet into the lower end of the adjacent outer well casing.*

11. 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.

**Sec. 53.** NAC 534.362 is hereby amended to read as follows:

534.362 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.]~~ *F480-14*, 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]~~ *(877) 909-2786* or at the Internet address <http://www.astm.org>, at a cost of ~~[\$57.]~~ *\$75*.

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.

***4. In a production well, no perforated or screened section may be placed above the static water level.***

**Sec. 54.** NAC 534.370 is hereby amended to read as follows:

534.370 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 *the most current edition of Drinking Water Treatment Chemicals - Health Effects*, ~~NSF/ANSI~~ *NSF/ANSI/CAN* Standard ~~[60-2014,]~~ *60-2019*, which is hereby adopted by reference. A copy of the standard may be obtained by mail from NSF International/Techstreet, ~~[3916 Ranchero]~~ *3025 Boardwalk* Drive, Ann Arbor,

Michigan 48108, by telephone at ~~[(800) 699-9277]~~ (855) 999-9870 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 *well* 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,]~~ *natural persons*, 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]~~ *steel* 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.

*6. The rehabilitation of a well must not result in the commingling of aquifers.*

*7. Any chemicals placed in a well for the purpose of reconditioning the well must be specifically designed for such purpose and used in accordance with the manufacturer’s recommendations.*

**Sec. 55.** NAC 534.375 is hereby amended to read as follows:



534.375 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.~~ *borehole*.

**Sec. 56.** NAC 534.378 is hereby amended to read as follows:

534.378 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.~~ *borehole* 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. *If bentonite chips are used, the chips must be placed in accordance with the manufacturer's specifications.*

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.

**Sec. 57.** NAC 534.380 is hereby amended to read as follows:

534.380 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}~~ *borehole* 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}~~ *borehole* 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)}~~ *(a)* 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}~~ *borehole* 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) *A minimum of 20 feet of neat cement, cement grout or concrete grout must be placed below the pitless adapter; and*
  - (d) 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.]~~ *Any grout slurry must be placed with sufficient pressure to create a uniform seal within the annular space. If using bentonite chips, the bentonite chips must be placed in accordance with the manufacturer's specifications.*

9. The diameter of the ~~[well-bore]~~ *borehole* 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 ~~[.]~~ *for the entire depth of the seal*. If a fill pipe for gravel is installed, the diameter of the ~~[well-bore]~~ *borehole* 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]~~ *borehole* must be at least 4 inches larger than the largest diameter of the conductor casing ~~[.]~~ *for the entire depth of the seal*; and

(b) The annular space between the conductor casing and the ~~[well-bore]~~ *borehole* 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.

*11. No perforations may be made in the production casing from the ground level to the total depth of the seal.*

**Sec. 58.** NAC 534.390 is hereby amended to read as follows:

534.390 1. If a well, other than a monitoring well, is drilled within 1/4 mile of a river, lake, perennial stream, unlined reservoir, *ditch* 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 *minimum* depth of 100 feet ~~;~~

~~(c)~~ ; *and*

(b) 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.

**Sec. 59.** NAC 534.420 is hereby amended to read as follows:

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

(a) *If feasible, restore the controlling hydrological conditions that existed before the well was drilled and constructed;*

(b) *Eliminate physical hazards;*

(c) *Prevent contamination of groundwater and the movement of contaminants inside or outside the well casing;*

(d) *Conserve the yield and hydrostatic head of aquifers; and*

(e) *Prevent the movement of surface or groundwater into unsaturated zones, another aquifer or between aquifers.*

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 *in writing* 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~~ *borehole* 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. ~~When~~ *When plugging a well in which* the casing in the well ~~is~~

~~—(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]~~ *and there is evidence of a sanitary seal around the well casing:*

(a) *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]~~ *highest known preexisting static water level* 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.]~~ *borehole*. 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]~~ *If* authorized under an alternative plan pursuant to NAC 534.422, ~~[with bentonite chips. The]~~ *the* well driller may use *bentonite grout or* uncontaminated fill from the top of the plug installed 50 feet above the ~~[uppermost saturated groundwater stratum]~~ *highest known preexisting static water level* 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]~~

(b) *The following materials may be used to plug the well from:*

*(1) The total depth to the top of the highest known preexisting static water level:*

*(I) Neat cement;*

*(II) Cement grout; or*

*(III) Bentonite grout.*

*(2) The top of the highest known preexisting static water level to 50 feet above the highest known preexisting static water level:*

*(I) Neat cement; or*

*(II) Cement grout.*

*(3) Fifty feet above the highest known preexisting static water level to 20 feet below the surface:*

*(I) Neat cement;*

*(II) Cement grout;*

*(III) Concrete grout; or*

*(IV) Bentonite chips.*

*(4) Twenty feet below the surface to the surface:*

*(I) Neat cement;*

*(II) Cement grout; or*

*(III) Concrete grout.*

**6. When plugging a well in which the casing of the well does not break free and there is no evidence of a sanitary seal around the well casing ~~[, the]~~ :**

**(a) 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]~~ highest known preexisting static**



*water level* 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.]~~ *borehole*. 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]~~ *If* authorized under an alternative plan pursuant to NAC 534.422, ~~[with bentonite chips. The]~~ *the* well driller may use *bentonite grout or* uncontaminated fill from the top of the plug installed 50 feet above the ~~[uppermost saturated groundwater stratum]~~ *highest known preexisting static water level* to within ~~[50]~~ *20* 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.]~~

*(b) The following materials may be used to plug the well from:*

*(1) The total depth to the top of the highest known preexisting static water level:*

*(I) Neat cement;*

*(II) Cement grout; or*

*(III) Bentonite grout.*

*(2) The top of the highest known preexisting static water level to 50 feet above the highest known preexisting static water level:*

*(I) Neat cement; or*

*(II) Cement grout.*

*(3) Fifty feet above the highest known preexisting static water level to 50 feet below the surface:*

*(I) Neat cement;*

*(II) Cement grout;*

*(III) Concrete grout; or*

*(IV) Bentonite chips.*

*(4) Fifty feet below the surface to the surface:*

*(I) Neat cement; or*

*(II) Cement grout.*

*7. When plugging a well in which the casing breaks free or, except as otherwise provided in NAC 534.4371, when plugging a geotechnical soil boring:*

*(a) If the highest known preexisting static water level is at or above the bottom of the borehole, the following plugging materials may be used from:*

*(1) The total depth to the highest known preexisting static water level:*

*(I) Neat cement;*

*(II) Cement grout;*

*(III) Bentonite chips; or*

*(IV) Bentonite grout.*

*(2) The top of the highest known preexisting static water level to 20 feet below the surface:*

- (I) Neat cement;*
- (II) Cement grout;*
- (III) Concrete grout; or*
- (IV) Bentonite chips.*

*(3) Twenty feet below the surface to the surface:*

- (I) Neat cement;*
- (II) Cement grout; or*
- (III) Concrete grout.*

*(b) If the highest known preexisting static water level is below the bottom of the borehole, the following plugging materials may be used from:*

*(1) The total depth to within 20 feet of the surface:*

- (I) Neat cement;*
- (II) Cement grout;*
- (III) Concrete grout;*
- (IV) Bentonite chips; or*
- (V) Clean uncontaminated fill.*

*(2) Twenty feet below the surface to the surface:*

- (I) Neat cement;*
- (II) Cement grout; or*
- (III) Concrete grout.*

↪ *If the preexisting static water level in the well cannot be determined, the preexisting static water level shall be deemed to be the bottom of the borehole.*

8. 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:]~~ **9.** If there is any standing liquid in the interval of the ~~[well bore]~~ *borehole* that is being plugged, all grout materials used pursuant to this section must be placed by tremie pipe in an upward direction.

**Sec. 60.** NAC 534.424 is hereby amended to read as follows:

534.424 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. ~~[H]~~ *Except as otherwise provided in subsection 3, 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.

*3. If there is a notarized affidavit on file with the Division acknowledging responsibility for plugging a well that is located on public land, the person who acknowledged responsibility for plugging the well in such affidavit is responsible for the cost of plugging the well. If that person 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.*

**Sec. 61.** NAC 534.426 is hereby amended to read as follows:

534.426 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.]~~ *borehole.*

**Sec. 62.** NAC 534.427 is hereby amended to read as follows:

534.427 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 of reasonable expectation of obtaining]~~ *the owner of the well has not applied for* a ~~[valid]~~ *water right* permit ~~[,]~~ *or* waiver ~~[or certificate of water right]~~ from the Division ~~[,]~~ *within 1 year after the date the well is completed.*

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.

**Sec. 63.** NAC 534.430 is hereby amended to read as follows:

534.430 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 *or in the casing cover* 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 *or a removable plug* 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.

**Sec. 64.** NAC 534.4353 is hereby amended to read as follows:

534.4353 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 ~~[-.]~~ *or to use an existing well as a monitoring well.*

3. ~~[The well driller shall, when submitting the notice of intent to drill pursuant to NAC 534.320,]~~ *If the well is located on public land, the person responsible for plugging the well, an*

*agent of the person responsible or the well driller must* 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. *The Division will not approve a notice of intent until such an affidavit has been submitted.*

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.

**Sec. 65.** NAC 534.4355 is hereby amended to read as follows:

534.4355 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}~~ *borehole* 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}~~ *borehole* 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}~~ *borehole* of a monitoring well unless the vertical intervals of the ~~{well bore}~~ *borehole* 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.

**Sec. 66.** NAC 534.4357 is hereby amended to read as follows:

534.4357 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~~ *borehole* above the sealing depth, the grout must be placed by tremie pipe in an upward direction.

**Sec. 67.** NAC 534.4359 is hereby amended to read as follows:

534.4359 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.}~~ *borehole.*

**Sec. 68.** NAC 534.4361 is hereby amended to read as follows:

534.4361 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. *The surface pad must:*

- (a) Extend at least 1 foot laterally in all directions from the outside of the well casing; and*
- (b) Be free of cracks, voids and other significant defects likely to prevent water tightness.*

*Contacts between the base of the surface pad and the annular seal and the base and the well casing must be watertight and must not cause the failure of the well casing or annular seal.*

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 *neat cement*, concrete *grout* 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.

**Sec. 69.** NAC 534.4365 is hereby amended to read as follows:

534.4365 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 5, if an annular cement seal was not installed, the monitoring well must be plugged by breaking the casing free with appropriate equipment so that the casing may be pulled from the well.*

3. Except as otherwise provided in subsection ~~4,~~ 5, if the casing in the monitoring well cannot be removed from the ~~well bore,~~ *borehole*, the monitoring well must be plugged by ~~placing~~:

(a) *Placing* neat cement by tremie pipe in an upward direction from the bottom of the well to the surface of the well ~~;~~

~~3,~~ *or*

*(b) Pressure grouting.*

4. Except as otherwise provided in subsection ~~[4.]~~ 5, if the casing in the monitoring well can be removed from the ~~[well bore,]~~ *borehole*, 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,]~~ *borehole*. If the casing in the monitoring well does not exceed 4 inches in diameter, the casing may be used as the tremie pipe.

~~[4.]~~ 5. If a request for a waiver of the requirements in subsection 3 of NAC 534.4355 or ~~[NRS]~~ NAC 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.

**Sec. 70.** NAC 534.4369 is hereby amended to read as follows:

534.4369 1. A ~~[borehole]~~ *geotechnical soil boring* may be drilled or plugged by a person who is not a licensed well driller.

2. A person who constructs or plugs a ~~[borehole]~~ *geotechnical soil boring* is not required to file with the Division a notice of intent . ~~[to drill or plug the borehole.]~~

3. A ~~[borehole]~~ *geotechnical soil boring* 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,]~~ *geotechnical soil boring* , the operator of the exploration project or the owner of the land where the ~~[borehole]~~ *geotechnical soil boring* is located must maintain a record of the drilling operation which includes:

(a) The dates on which the ~~[borehole]~~ *geotechnical soil boring* is constructed and plugged;

- (b) The location of the ~~{borehole}~~ *geotechnical soil boring* as shown by public land survey;
  - (c) The depth and diameter of the ~~{borehole;}~~ *geotechnical soil boring*;
  - (d) The depth at which groundwater is encountered in the ~~{borehole;}~~ *geotechnical soil boring*; and
  - (e) The methods and materials used to plug the ~~{borehole;}~~ *geotechnical soil boring*.
5. The State Engineer may, at any time, require the person drilling or plugging the ~~{borehole;}~~ *geotechnical soil boring*, the operator of the exploration project or the owner of the land on which the ~~{borehole}~~ *geotechnical soil boring* 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}~~ *geotechnical soil boring* that the State Engineer determines is necessary.
6. The owner and the lessor of the land on which a ~~{borehole}~~ *geotechnical soil boring* 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;}~~ *geotechnical soil boring*.
7. A ~~{borehole}~~ *geotechnical soil boring* must not be used to ~~{divert}~~ :
- (a) *Determine information related to water quality or quantity; or*
  - (b) *Divert* water for any purpose.
- Sec. 71.** NAC 534.4371 is hereby amended to read as follows:
- 534.4371 1. A ~~{borehole}~~ *geotechnical soil boring* must be plugged within 60 days after ~~{it is drilled;}~~ *the date that drilling of the geotechnical soil boring is completed*.

2. Except as otherwise provided in subsections **3 and 4**, ~~[7 and 8 and NAC 534.438,]~~ a ~~[borehole]~~ **geotechnical soil boring** must be plugged ~~[-~~
- ~~—(a) In] 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.]~~ 3. 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]~~ *geotechnical soil boring* 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 ~~[ ]~~ *and NAC 534.420 or 534.422, as applicable*, 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.]~~ 4. If the water-bearing formations are unknown and any drilling casing or pipe does not break free, the well driller must plug the ~~[borehole]~~ *geotechnical soil boring* in accordance with ~~[paragraph (b) of]~~ subsection 5 *or 6* of NAC 534.420, *as applicable*, so that the plugging fluid penetrates the annular space and the geologic formation in the perforated intervals.

**Sec. 72.** NAC 534.4373 is hereby amended to read as follows:

534.4373 The owner and lessor of the land on which a ~~[borehole]~~ *geotechnical soil boring* is located, the operator of the exploration project and the plugging contractor for the project are jointly and severally responsible for plugging the ~~[borehole]~~ *geotechnical soil boring* pursuant to this chapter.

**Sec. 73.** NAC 534.4375 is hereby amended to read as follows:

534.4375 If an artesian condition is encountered in any ~~[borehole,]~~ *geotechnical soil boring* *or* 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,]~~ *geotechnical soil boring or* 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~~ *geotechnical soil boring* to the surface. The owner and lessor of the land on which a ~~borehole~~ *geotechnical soil boring* 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.~~ *borehole*.

**Sec. 74.** NAC 534.4376 is hereby amended to read as follows:

534.4376 1. An instrumentation ~~borehole~~ *geotechnical soil boring* 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~~ *geotechnical soil boring* must be permanently plugged at the time of completion pursuant to NAC 534.4371.

4. Documentation of each instrumentation ~~borehole~~ *geotechnical soil boring* must be completed and maintained pursuant to NAC 534.4369.

**Sec. 75.** NAC 534.440 is hereby amended to read as follows:

534.440 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 , *accompanied by the filing fee required pursuant to NRS 533.435* and ~~contain the following information:~~ *include, without limitation:*

(a) The location by public land survey ~~[ ]~~ *and global positioning system coordinates*, 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 *exploratory* 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 *exploratory* well, and the name, address and telephone number of the owner of the land where the *exploratory* well will be located if the owner is not the person responsible for plugging the well; ~~[and]~~

(g) ~~[A]~~ *If the exploratory well will be located on public land, a* notarized affidavit, on a form prescribed by the Division, from the person who will be responsible for plugging the *exploratory* well upon abandonment acknowledging that responsibility ~~[ ]~~ ; *and*

*(h) If a waiver is requested for multiple exploratory wells, a list and the required information for all exploratory wells for which a waiver is requested on the “Additional Well Locations” form.*

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~~ *State Engineer* pursuant to NRS 534.170 *and NAC 534.340* 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 *exploratory* 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 *exploratory* well within 1 year after the date of completion of the *exploratory* well, the *exploratory* 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.

8. *A waiver granted pursuant this section is valid for up to 1 year after the date on which the waiver is approved and may be extended pursuant to section 14 of this regulation.*

**Sec. 76.** NAC 534.441 is hereby amended to read as follows:

534.441 1. A request for a waiver to drill a monitoring well *or to use an existing well as a monitoring well* must be submitted to the State Engineer in writing , *accompanied by the filing fee required pursuant to NRS 533.435* and ~~contain:~~ *include, without limitation:*

(a) The location of the proposed monitoring well by public land survey ~~and~~ *and global positioning system coordinates*, 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]~~ *If a monitoring well is or will be located on public land, a* notarized affidavit, on a form prescribed by the Division, from the person who will be responsible for plugging the *monitoring* 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]~~ *State Engineer* pursuant to NRS 534.170 *and NAC 534.340* 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.

*6. A waiver granted in accordance with this section is valid for up to 1 year after the date on which the waiver is approved and may be extended pursuant to section 14 of this regulation.*

**Sec. 77.** NAC 534.442 is hereby amended to read as follows:

534.442 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, *accompanied by the filing fee required pursuant to NRS 533.435* and ~~[contain:]~~ *include, without limitation:*

(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 ~~[.]~~ *and global positioning system coordinates*, 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]~~ *If the well is or will be located on public land, 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 ~~[.]~~; *and*
  - (h) *If a waiver is requested for multiple wells, a list and the required information for all wells for which a waiver is requested on the "Additional Well Locations" form.*
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]~~ *State Engineer* pursuant to NRS 534.170 *and NAC 534.340* 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.

*6. A waiver granted in accordance with this section is valid for up to 1 year after the date on which the waiver is approved and may be extended pursuant to section 14 of this regulation.*

**Sec. 78.** NAC 534.444 is hereby amended to read as follows:

534.444 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, *accompanied by the filing fee required pursuant to NRS 533.435* and ~~contain:~~ *include, without limitation:*

(a) The location of the proposed water well and the oil, gas or geothermal well by public land survey ~~and~~ *and global positioning system coordinates*, 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 ~~for the duration of the waiver;~~

(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]~~ *If the well is or will be located on public land, 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 ~~[I]~~; *and*

*(h) If a waiver is requested for multiple wells, a list and the required information for all wells for which a waiver is requested on the “Additional Well Locations” form.*

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]~~ *State Engineer* pursuant to NRS 534.170 *and NAC 534.340* 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. *For purposes of this subsection, “expiration of the waiver” means the date on which the waiver is permanently expired pursuant to subsection 5 of section 14 of this regulation.*

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.

*7. A waiver granted in accordance with this section is valid for up to 1 year after the date on which the waiver is approved and may be extended pursuant to section 14 of this regulation.*

**Sec. 79.** NAC 534.446 is hereby amended to read as follows:

534.446 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 , *accompanied by the fee required pursuant to NRS 533.435* and ~~contain:~~ *include, without limitation:*

(a) The location of the proposed water well by public land survey ~~;~~ *and global positioning system coordinates*, 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) ~~IA~~ *If the well is or will be located on public land, 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 ~~[ ]~~; *and*

*(h) If a waiver is requested for multiple wells, a list and the required information for all wells for which a waiver is requested on the “Additional Well Locations” form.*

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]~~ *State Engineer* pursuant to NRS 534.170 *and NAC 534.340* 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. *For the purposes of this subsection, “expiration of the waiver” means the date on which the waiver is permanently expired pursuant to subsection 5 of section 14 of this regulation.*

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. The owner of the well must keep monthly records of the amount of water pumped from each well to which the waiver applies and submit those records to the State Engineer within 15 days after the end of each calendar quarter unless otherwise specified in the waiver.*

*7. A waiver granted in accordance with this section is valid for up to 1 year after the date on which the waiver is approved and may be extended pursuant to section 14 of this regulation.*

**Sec. 80.** NAC 534.448 is hereby amended to read as follows:

534.448 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 , *accompanied by the fee required pursuant to NRS 533.435* and ~~contain:~~ *include, without limitation:*

(a) The location of the proposed well by public land survey, and global positioning system coordinates, 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) *A proposed construction sketch of the proposed well;*

(e) *The name of the proposed well;*

(f) 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]~~

(g) *If the well will be located on public land, 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)~~ (h) The name, address and telephone number of a person who will be available to answer questions concerning the project; ~~and~~

~~(g)~~ (i) The date the project is scheduled to be completed ~~(-)~~; *and*

*(j) If a waiver is requested for multiple wells, a list and the required information for all wells for which a waiver is requested on the “Additional Well Locations” form.*

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)~~ *State Engineer* pursuant to NRS 534.170 *and NAC 534.340* 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. *For purposes of this subsection, “expiration of the waiver” means the date on which the waiver is permanently expired pursuant to subsection 5 of section 14 of this regulation.*

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.

8. *The owner of the well shall keep monthly records of the amount of water pumped from each well granted in the waiver and submit those records to the State Engineer within 15 days after the end of each calendar quarter unless otherwise specified in the waiver.*

9. *A waiver granted in accordance with this section is valid for up to 1 year after the date on which the waiver is approved and may be extended pursuant to section 14 of this regulation.*

**Sec. 81.** NAC 534.449 is hereby amended to read as follows:

534.449 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]~~

2. A waiver *granted pursuant to this section* is valid for *up to* 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]~~ *The* owner of the well may submit a request to extend the waiver *pursuant to section 14 of this regulation* or *apply* to make the waiver permanent. ~~[, if appropriate, as determined by the State Engineer.~~

~~2.]~~ 3. 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 the location of the well by public land survey and global positioning system coordinates and the county assessor's parcel number;*

(c) 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;

~~[(e) Include]~~

(d) *If the well is located on a public land, 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)]~~ (e) Provide evidence that the well would be useful as a site for monitoring groundwater ~~]; and~~

(f) *If a waiver is requested for multiple wells, a list and the required information for all wells for which a waiver is requested on the “Additional Well Locations” form.*

**Sec. 82.** NAC 534.450 is hereby amended to read as follows:

534.450 1. ~~[(Except as otherwise provided in subsection 2, the]~~ *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, *accompanied by the fee required pursuant to NRS 533.435* and include ~~];~~, *without limitation:*

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

(b) The location ~~for proposed location~~ of the well by public land survey ~~and~~ *and global positioning system coordinates and the county assessor's parcel number;*

(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~~

*(f) If the well is located on public land, 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)~~ *(g)* Any available data to categorize the hydraulic heads, water quality and permeability characteristics of the aquifer; ~~and~~

~~(i)~~ *(h) If a waiver is requested for multiple wells, a list and the required information for all wells for which a waiver is requested on the "Additional Well Locations" form; and*

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



~~[4.]~~ 3. After reviewing the request, the State Engineer will issue a written notice of his or her decision to the responsible party.

~~[5.]~~ 4. 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]~~ *State Engineer* pursuant to NRS 534.170 *and NAC 534.340* must bear this number.

~~[6.]~~ 5. 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.]~~ 6. 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.

**Sec. 83.** NAC 534.500 is hereby amended to read as follows:

534.500 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
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Notice of Intent/Approval

~~[Failing to submit]~~ *Setting up a well rig or commencing drilling, plugging or rehabilitation before* a notice of intent ~~[to drill to]~~ is approved by the Division as required by NAC 534.320.....~~[25]~~ *50*

Classification of Violations	Maximum Demerits
<p>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.....</p>	<p><del>75</del> 50</p>
<b>Well Driller's Report</b>	
<p>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 .....</p>	<p>75</p>
<p>Submitting a Well Driller's Report to the State Engineer pursuant to NRS 534.170 more than 30 days after a well is completed .....</p>	<p>10</p>
<p>Submitting a Well Driller's Report to the <del>Division</del> <i>State Engineer</i> pursuant to NAC 534.420 more than 30 days after a water well has been plugged .....</p>	<p>10</p>

**Licenses**

Intentionally making a material misstatement of fact in an application

Classification of Violations	Maximum Demerits
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 <i>directly supervise</i> at a well-drilling site when a drill rig is in operation or when any activity involving the construction, <del>reconditioning</del> <i>rehabilitation</i> 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 <del>intent to drill.</del> ) <i>intent.</i> ).....	50
<b>Well construction and plugging</b>	
Failing to comply with any provision of this chapter which establishes standards for the construction, <del>reconditioning</del> <i>rehabilitation</i> 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	

Classification of Violations	Maximum
	Demerits

during the construction, ~~reconditioning~~ *rehabilitation* 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~~ *Failing to comply with the requirements of NRS 534.065*  
*when 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~~

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

Classification of Violations	Maximum Demerits
<p>Any other violation of any of the provisions of this chapter or chapter 534 of NRS .....</p>	<p>To be determined by the Division based on the severity of the violation, but not to exceed 100</p>

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]~~ **169** or more demerit points, the State Engineer ~~[may,]~~ **will**, after giving notice and holding a hearing pursuant to NRS 534.160 to determine that the violations which resulted in the demerit points occurred, **require the licensed well driller to comply with specified conditions imposed on his or her license or** suspend **or revoke** the license of the well driller indefinitely.

4. If the State Engineer suspends **or revokes** the license of a well driller, the Division shall notify the well driller that his or her license is suspended **or revoked, as applicable**, 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.]~~ **5.** A well driller whose license has been suspended pursuant to subsection 3 may have the license reinstated if : ~~[the well driller:]~~

(a) ~~[Satisfies]~~ **The well driller satisfies** the requirements set forth in subsection 2 of NAC 534.293;

(b) ~~[Appears before the State Engineer at a hearing and the]~~ **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]~~ **The well driller resolves** any outstanding complaints related to his or her license as a well driller to the satisfaction of the Division.

~~[5.]~~ **6.** **An order revoking the license pursuant to subsection 3 is final unless an action for review is filed pursuant to NRS 533.450.**

7. The Division shall reduce the number of demerit points accumulated against the license of a well driller whose license has been suspended *or revoked* pursuant to subsection 3 and reinstated ~~[pursuant to subsection 4]~~ to zero.

~~[6.]~~ 8. 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.]~~ *after the demerits were assessed.*

(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.

*(d) All the demerit points assessed against the license of a well driller will be removed if, following the assessment of the last demerit against the license of the well driller, the well driller is not assessed any demerit points for 4 years.*

**Sec. 84.** NAC 534.165, 534.192, 534.235, 534.358, 534.4367, 534.43763, 534.43767, 534.4377 and 534.438 are hereby repealed.

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## TEXT OF REPEALED SECTIONS

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**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.

**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.

**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.

**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.

**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.

**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.

**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.

**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.

**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.