AGENDA

IDAHO WATER RESOURCE BOARD

Special Board Meeting No. 9-24
Thursday, August 29, 2024
9:00 a.m. (MT) / 8:00 a.m. (PT)

Idaho Water Center
Conference Room 602 B
322 E. Front St.
BOISE

Livestream available at https://www.youtube.com/@iwrb

1. Roll Call
2. Administrative Rules*
3. ESPA Managed Recharge Program Conveyance Contracts*
4. Non-Action Items for Discussion
5. Next Meeting & Adjourn

* Action Item: A vote regarding this item may be made at this meeting. Identifying an item as an action item on the agenda does not require a vote to be taken on the item. **Americans with Disabilities**: If you require special accommodations to attend, participate in, or understand the meeting, please make advance arrangements by contacting Department staff by email jennifer.strange@idwr.idaho.gov or by phone at (208) 287-4800.

Memorandum

State of Idaho
Department of Water Resources
322 E Front Street, P.O. Box 83720, Boise, Idaho 83720-0098
Phone: (208) 287-4800 Fax: (208) 287-6700

Date: August 27, 2024

To: Idaho Water Resource Board ("IWRB")

From: Erik Boe, Water Compliance Bureau Chief, RRO

Re: IWRB Proposed Rules and Draft Resolution

REQUIRED ACTION: IWRB will consider a resolution adopting proposed rules and authorizing their notice and publication in the State's October (2024) Administrative Bulletin

The Idaho Department of Water Resources ("IDWR") initiated rulemaking in compliance with Executive Order No. 2020-01, Zero-Based Review (ZBR) (EO 2020-01), issued by Governor Little on January 16, 2020.

Pursuant to the schedule determined by the Division of Financial Management ("DFM"), IDWR developed proposed IDAPA rules for 37.03.03 *Rules and Minimum Standards for the Construction and Use of Injection Wells* ("Injection Well Rules") and 37.03.09 *Well Construction Standards Rules* ("Well Construction Rules" IDAPA 37.03.09) in accordance with the ZBR rulemaking process and following numerous public and interagency meetings.

Before the IWRB on August 29, 2024, IDWR's RRO will present an update on the Well Construction and Injection Well rulemakings, stand for any questions, and seek approval of the attached draft resolution adopting the proposed rules and authorizing their notice and publication in the State's October (2024) Administrative Bulletin.

ATTACHMENTS

- Draft Resolution Adopting Proposed Rules
- Proposed Rule – Well Construction Rules
- Proposed Rule – Injection Well Rules
- Notice of Proposed Rule – Well Construction Rules
- Notice of Proposed Rule – Injection Well Rules
- Prospective Analysis – Proposed Well Construction Rules
- Prospective Analysis – Proposed Injection Well Rules

BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF THE BOARD'S 2024 ZERO-BASED REGULATION NEGOTIATED RULEMAKING OF IDAPA 37	RESOLUTION TO PUBLISH TWO IDAPA 37 CHAPTERS AS PROPOSED RULES IN THE OCTOBER 2, 2024, IDAHO ADMINISTRATIVE BULLETIN VOL. 24-10

WHEREAS, the Idaho Water Resource Board ("IWRB") is the executive branch entity with statutory oversight and authority over 12 chapters of Administrative Rules in IDAPA 37; and

WHEREAS, Governor Little's Executive Order 2020-01 Zero Based Regulation ("Executive Order") directs each agency to comprehensively review all rules under its authority and "if applicable" to promulgate new rules to take their place where necessary, and to conduct this zero-based review ("ZBR") over a five year period from 2021 to 2025;

WHEREAS, the IWRB adopted a five-year ZBR rulemaking schedule that identifies the review of the following rules by the end of the fourth year, or 2024:

- IDAPA 37.03.03 *Rules and Minimum Standards for the Construction and Use of Injection Wells*;
- IDAPA 37.03.09 *Well Construction Standards Rules*;

WHEREAS, the Executive Order directs any "agency wishing to renew a rule chapter beyond [its ZBR] review date" to promulgate a new rule chapter after conducting a "retrospective analysis" of the rule;

WHEREAS, the IWRB has conducted retrospective analyses of its Rules and Minimum Standards for the Construction and Use of Injection Wells and Well Construction Standards Rules and concluded they are all needed to carry out the IWRB's statutory duties and responsibilities fairly, efficiently, and consistently;

WHEREAS, the Executive Order directs agencies to "start the new rulemaking from a zero-base, and not seek to simply reauthorize their existing rule chapter without a critical and comprehensive review";

WHEREAS, the IWRB's notices of intent to promulgate rules for each chapter clearly stated its intent to "repeal and promulgate rules" "consistent with Executive Order 2020-01: Zero-Based Regulation" and where the IWRB has conformed to all ZBR processes and requirements throughout the rulemaking process;

WHEREAS, the Executive Order directs agencies to "publish a notice of intent to promulgate rules and hold, at a minimum, two public hearings that are designed to maximize public participation in the rulemaking process";

WHEREAS, the IWRB published notice of negotiated rulemaking for its Rules and Minimum Standards for the Construction and Use of Injection Wells in Admin. Bulletin Vol. 23-4 and its Well Construction Standards Rules in Admin. Bulletin Vol. 24-4;

WHREAS, the IWRB held two public hearings or more as part of its negotiated rulemaking of the Rules and Minimum Standards for the Construction and Use of Injection Wells during the spring and summer of 2023 and the spring and summer of 2024, and for the Well Construction Standards Rules during the spring and summer of 2024;

WHEREAS, the Executive Order directs agencies to promulgate new rule chapters that "reduce the overall regulatory burden, or remain neutral, as compared to the previous chapter";

WHEREAS, in combination, the Rules and Minimum Standards for the Construction and Use of Injection Wells Rules and Well Construction Standards Rules were reduced by more than 2,298 words, resulting in a combined reduction of 9.6%;

NOW, THEREFORE BE IT RESOLVED that the IWRB adopts the following proposed rules and directs that they be adopted as submitted to the Idaho Office of Administrative Rules Coordinator:

- 37.03.03, *Rules and Minimum Standards for the Construction and Use of Injection Wells;*
- 37.03.04, *Well Construction Standards Rules;*

NOW, THEREFORE BE IT RESOLVED that the IWRB authorizes the notice and publication of the above proposed rules.

DATED this 29th day of August, 2024.

_____
JEFF RAYBOULD, Chairman
Idaho Water Resource Board

ATTEST _____
Dean Stevenson, Secretary
Idaho Water Resource Board

Zero-Based Regulation
Prospective Analysis

- **Fill out entire form to the best of your ability, unless submitting a Notice to Negotiate only fill out 1, 2, 5, and 7. The rest of the form must be completed prior to the adoption of the proposed rule.**

Agency Name: Idaho Department of Water Resources ("IDWR")

Rule Docket Number: Docket No. 37-0309-2401

1. What is the specific Idaho statutory legal authority for this proposed rule?

Statute Section (include direct link)	Is the authority mandatory or discretionary?
Idaho Code §§ 42-238(12) and 42-235	Mandatory
https://legislature.idaho.gov/statutesrules/idstat/Title42/T42CH2/	

2. Define the specific problem that the proposed rule is attempting to solve? Can the problem be addressed by non-regulatory measures?

IDWR proposes negotiated rule making for reasonable rules that may be necessary to maintain minimum standards for new construction, modification and decommissioning of cold water wells, low temperature geothermal wells, and geothermal wells in Idaho. The problem the rule solves is the protection of Idaho ground water resources from waste and contamination through minimum well construction standards. The negotiated rule making process will determine whether the Well Construction Standards Rules ("Well Construction Rules") are necessary or require any modification.

The Well Construction Rules offer a set of minimum construction standards for the construction of all new wells and the modification and decommissioning of existing wells. The intent of the Rule is to protect the public health, safety, welfare and environment, and to prevent the waste of water or mixture of water from different aquifers. The Rule also implements the drilling permit fees set forth in Idaho Code § 42-235.

IDWR proposes maintaining the Well Construction Standards Rules with some modifications and updates, subject to the negotiated rulemaking process.

3. How have other jurisdictions approached the problem this proposed rule intends to address?

a. **Is this proposed rule related to any existing federal law? No**

Federal citation	Summary of Law (include direct link)	How is the proposed Idaho rule more stringent? (if applicable)
NA	NA	NA

b. **How does this proposed rule compare to other state laws?**

State	Summary of Law (include direct link)	How is the proposed Idaho rule more stringent? (if applicable)
Washington	In Washington, well construction rules are designed to protect groundwater resources and public health by ensuring wells are properly sited, constructed, and maintained. These rules cover various aspects such as well location, casing, sealing, and testing to prevent contamination and ensure water quality. Contractors must be licensed, and wells must meet specific standards set by the Washington State Department of Ecology. For detailed information, you can access the administrative rules for well construction at: https://apps.leg.wa.gov/WAC/default.aspx?cite=173-160.	Both states set detailed requirements for well casing, sealing, and location to protect groundwater, but the specific standards, like minimum sealing depth or casing materials, vary based on local geological and environmental conditions. These differences are tailored to address each state's unique groundwater protection challenges.

Oregon	In Oregon, well construction rules are established to ensure the protection of groundwater resources and public health by setting standards for well location, design, construction, and maintenance. These regulations require licensed professionals to adhere to strict guidelines for well casing, sealing, and testing to prevent contamination and ensure the safety of drinking water. The Oregon Water Resources Department oversees these regulations, ensuring compliance and proper documentation for all well constructions. For detailed information, you can access the administrative rules for well construction at: https://secure.sos.state.or.us/oard/displayDivisionRules.action?selectedDivision=3184	Both states set detailed requirements for well casing, sealing, and location to protect groundwater, but the specific standards, like minimum sealing depth or casing materials, vary based on local geological and environmental conditions. These differences are tailored to address each state's unique groundwater protection challenges.
Nevada	In Nevada, well construction rules are designed to protect groundwater by ensuring wells are constructed, maintained, and abandoned in a way that prevents contamination and preserves water quality. These regulations include standards for well location, casing, sealing, and testing, and they require that only licensed professionals carry out well construction. The Nevada Division of Water Resources is responsible for enforcing these rules to ensure compliance and safeguard public health. For detailed information, you can access the administrative rules regulating well construction standards at: https://www.leg.state.nv.us/NAC/NAC-534.html	Both states set detailed requirements for well casing, sealing, and location to protect groundwater, but the specific standards, like minimum sealing depth or casing materials, vary based on local geological and environmental conditions. These differences are tailored to address each state's unique groundwater protection challenges.
Utah	In Utah, well construction rules are implemented to protect groundwater by ensuring that wells are properly sited, constructed, and maintained according to state standards. These regulations cover requirements for well drilling, casing, sealing, and the use of licensed professionals to prevent contamination and protect water quality. The Utah Division of Water Rights enforces these rules to ensure that all well construction meets the necessary safety and environmental standards. For detailed information, you can access the administrative rules regulating well construction standards at: https://rules.utah.gov/publicat/code/r655/r655-004.htm	Both states set detailed requirements for well casing, sealing, and location to protect groundwater, but the specific standards, like minimum sealing depth or casing materials, vary based on local geological and environmental conditions. These differences are tailored to address each state's unique groundwater protection challenges.

Wyoming	In Wyoming, well construction rules are established to protect groundwater resources by ensuring wells are drilled, constructed, and maintained to prevent contamination and ensure water quality. These regulations set standards for well location, casing, sealing, and abandonment, requiring the work to be performed by licensed professionals. The Wyoming State Engineer's Office enforces these rules to safeguard public health and the environment. For detailed information, you can access the administrative rules regulating well construction standards at: https://seo.wyo.gov/ground-water/water-well-construction	Both states set detailed requirements for well casing, sealing, and location to protect groundwater, but the specific standards, like minimum sealing depth or casing materials, vary based on local geological and environmental conditions. These differences are tailored to address each state's unique groundwater protection challenges.
Montana	In Montana, well construction rules are designed to protect groundwater quality by ensuring that wells are properly constructed, located, and maintained to prevent contamination. The regulations include detailed requirements for well casing, sealing, and the involvement of licensed contractors to ensure safe drinking water. The Montana Department of Natural Resources and Conservation oversees these rules to ensure compliance and protect public health. For detailed information, you can access the administrative rules regulating well construction standards at: https://rules.mt.gov/browse/collections/aec52c46-128e-4279-9068-8af5d5432d74/sections/71b22562-3e9f-47e8-8ffd-3a2f9a766a6b	Both states set detailed requirements for well casing, sealing, and location to protect groundwater, but the specific standards, like minimum sealing depth or casing materials, vary based on local geological and environmental conditions. These differences are tailored to address each state's unique groundwater protection challenges.

Alaska	In Alaska, well construction rules are designed to protect groundwater and public health by ensuring that wells are properly constructed, located, and maintained to prevent contamination. These regulations specify requirements for well drilling, casing, and sealing, and mandate that only licensed professionals perform the work. The Alaska Department of Environmental Conservation oversees these rules to ensure compliance and the safety of drinking water supplies. The state regulations for water well construction in Alaska are primarily found in the Alaska Administrative Code (AAC) and are enforced by the Alaska Department of Natural Resources (DNR) and the Alaska Department of Environmental Conservation (DEC). Specifically: 1. Alaska Administrative Code (AAC), Title 11, Chapter 93 - This chapter includes regulations related to water rights, which encompass the permitting requirements for water well construction. 2. Alaska Administrative Code (AAC), Title 18, Chapter 80 - This chapter includes regulations related to drinking water, including requirements for the construction and maintenance of wells to ensure they do not contaminate drinking water supplies. For more detailed information, you can access these regulations through the following links: • 11 AAC 93 (Water Rights): https://www.akleg.gov/basis/aac.asp#11.93 • 18 AAC 80 (Drinking Water): https://www.akleg.gov/basis/aac.asp#18.80	Both states set detailed requirements for well casing, sealing, and location to protect groundwater, but the specific standards, like minimum sealing depth or casing materials, vary based on local geological and environmental conditions. These differences are tailored to address each state's unique groundwater protection challenges.
South Dakota	In South Dakota, well construction rules are designed to protect groundwater by ensuring that wells are properly sited, constructed, and maintained to prevent contamination. These regulations require that wells be drilled, cased, and sealed according to specific standards, and that only licensed professionals perform the work. The South Dakota Department of Environment and Natural Resources (DENR) oversees these regulations to ensure compliance and safeguard public health. For detailed information, you can access the administrative rules regulating well construction at: https://sdlegislature.gov/Rules/Administrative/74:02:04	Both states set detailed requirements for well casing, sealing, and location to protect groundwater, but the specific standards, like minimum sealing depth or casing materials, vary based on local geological and environmental conditions. These differences are tailored to address each state's unique groundwater protection challenges.

C. **If the Idaho proposed rule has a more stringent requirement than the federal government or the reviewed states, describe the evidence base or unique circumstances that justifies the enhanced requirement:**

No federal well construction standards for water wells, they are regulated at the state level.

4. What evidence is there that the rule, as proposed, will solve the problem?

Industry well construction standards, created by organizations like the American Water Works Association (AWWA) and the National Ground Water Association (NGWA), provide essential science-based guidelines for the safe and effective construction of wells. These standards are crucial for protecting groundwater resources, ensuring well longevity, and safeguarding public health. Idaho's well construction rules were developed using the expertise of drillers, hydrologists, and engineers, drawing heavily on the industry standards recommended by AWWA and NGWA.

5. What is the anticipated impact of the proposed rule on various stakeholders? Include how you will involve stakeholders in the negotiated rulemaking process?

Category	Potential Impact
Fiscal impact to the state General Fund, any dedicated fund, or federal fund	Maintaining the current rules, with some proposed modifications will have no impact to the state General Fund, dedicated fund, or federal fund. Application fees for permitting construction or abandonment of wells are nominal ($75 for domestic or monitoring purposes and $200 for all other purposes); permit fees are controlled by statute rather than rule. IDWR generally receives about 3,000 to 5,000 well applications per year. About 85% to 90% of all applications are for construction of new domestic wells.
Impact to Idaho businesses, with special consideration for small businesses	Maintaining the current rules, with proposed minor modifications, should not impact Idaho businesses, including small businesses. No changes are proposed to permit fees. Construction of new wells and decommissioning of existing wells must be performed by an Idaho licensed well driller. Proposed rule modifications may clarify rules and standards for improved application of rules and ability to address certain well construction problems. IDWR does not anticipate rule modifications that will increase well construction costs.
Impact to any local government in Idaho	Maintaining the current rules, with proposed minor modifications, will have no impact on IDWR or any local government in Idaho. Cities, counties or other local government entities typically construct wells that exceed minimum construction standards under these rules.

6. What cumulative regulatory volume does this proposed rule add?

Category	Impact

Net change in word count	Proposed rule reduces word count from 13,355 to 12,578 words. This corresponds to a net change of -777 words or -5.8%.
Net change in restrictive word count	Proposed rule reduces total restrictive word count from 234 to 210 words. This corresponds to a net change of -24 words or -10.3%.

7. Should this rule chapter remain as a rule chapter or be moved to statute as suggested in Section 67- 5292, Idaho Code?

Category	Impact
What is the cost of publishing this rule chapter annually? (Multiply the number of pages x $56)	This 37 page rule would cost approximately $2,072, annually.
How frequently has this rule chapter been substantively updated over the past 5 years? (Exclude republishing triggered solely by recent sunset dates)	Once
What is the benefit of having all related requirements in a single location in Idaho Code?	Well Construction Rules add necessary clarification to statutes captured in Chapter 2, Title 42, Idaho Code, and establishes minimum standards for the construction of all new wells and the modification and decommissioning (abandonment) of existing wells.

37.03.09 – WELL CONSTRUCTION STANDARDS RULES

000. LEGAL AUTHORITY (RULE 0).
~~The Idaho Water Resource Board adopts these administrative rules with the authority provided by~~ Section 42-238(12), Idaho Code. (~~3-18-22~~___)

001. ~~TITLE AND~~ SCOPE (RULE 1).

01. Title. These rules are cited as IDAPA 37.03.09, "Well Construction Standards Rules."(~~3-18-22~~___)

02. Scope. ~~The Department of Water Resources has statutory responsibility for the statewide administration of the rules governing well construction.~~ These rules establish minimum standards for the construction of all new wells and the modification and decommissioning ~~(abandonment)~~ of existing wells. The intent of the rules is to protect the ground water resources of the state against waste and contamination. These rules are applicable to all water wells, monitoring wells, low temperature geothermal wells, injection wells, cathodic protection wells, closed loop heat exchange wells, and other artificial openings and excavations in the ground that are more than eighteen (18) feet in vertical depth below land surface as described in these rules pursuant to Section 42-230 Idaho Code. ~~Some artificial openings and excavations do not constitute a well. For the purposes of these rules, artificial openings and excavations not defined as wells are described in Subsection 045.03 of these rules. Any time that such an artificial opening or excavation is constructed, modified, or decommissioned (abandoned) the intent of these rules must be observed. If waste or contamination is attributable to this type of artificial opening or excavation, the artificial opening or excavation must be modified, or decommissioned (abandoned) as determined by the Director.~~ (~~3-18-22~~___)

002. -- 009. (RESERVED)

010. DEFINITIONS (RULE 10).
~~Unless the context otherwise requires, the following definitions apply to these rules. (3-18-22)~~

01. Approved Seal or Seal Material. Seal material must consist of bentonite chips, pellets, or granules, bentonite grout, neat cement, or neat cement grout as defined by these rules. ~~No other materials may be used unless specifically authorized by the Director~~ (~~3-18-22~~___)

02. Annular Space. The space, measured as one-half (1/2) the difference in diameter between two (2) concentric cylindrical objects, one of which surrounds the other, such as the space between the walls of a drilled hole (borehole) and a casing or the space between two (2) strings of casing. (3-18-22)

03. Aquifer. Any geologic formation(s) that will yield water to a well in sufficient quantities to make the production of water from the formation feasible for beneficial use. (3-18-22)

04. Area of Drilling Concern. An area designated by the Director in which drillers must comply with additional standards to prevent waste or contamination of ground or surface water due to such factors as aquifer pressure, vertical depth of the aquifer, warm or hot ground water, or contaminated ground or surface waters, in accordance with Section 42-238(~~7~~15), Idaho Code. (~~3-18-22~~___)

05. Artesian Water. Any water that is confined in an aquifer under pressure so that the water will rise in the well casing or drilled hole above the elevation where it was first encountered. This term includes water of flowing and non-flowing wells. (3-18-22)

06. Artificial Filter Pack. Clean, rounded, smooth, uniform, sand or gravel placed in the annular space around a perforated well casing or well screen. A filter pack is frequently used to prevent the movement of finer material into the well casing and to increase well efficiency. (3-18-22)

07. Bentonite. A commercially processed and packaged, low permeability, sodium montmorillonite clay certified by the NSF International for use in well construction, sealing, plugging, and decommissioning

~~(abandonment)~~. All bentonite products used in the construction or decommissioning ~~(abandoning)~~ of wells must have a permeability rating not greater than 10^{-7} (ten to the minus seven) cm/sec. (~~3-18-22~~)

a. Chips. Bentonite composed of pieces ranging in size from one-quarter (1/4)-inch to one (1) inch on their greatest dimension. (3-18-22)

b. Granules (also Granular). Bentonite composed of pieces ranging in size from one thirty-second~~s~~ (1/32) inch (#20 standard mesh) to seven thirty-seconds (7/32) inch (#3 standard mesh) on their greatest dimension. (~~3-18-22~~)

c. Bentonite Grout. A mixture of bentonite specifically manufactured for use as a well sealing or plugging material and potable water to produce a grout with an active solids content not less than twenty-five percent (25%) by weight e.g., (twenty-five percent (25%) solids content by weight = fifty (50) pounds bentonite per eighteen (18) gallons of water). (3-18-22)

d. Pellets (also Tablets). ~~Bentonite manufactured for a specific purpose and composed of uniform sized, one-quarter (1/4) inch, three-eighths (3/8) inch, or one-half (1/2) inch pieces on their greatest dimension.~~ High swelling sodium bentonite compressed into pellet form, including pellets coated with a time release biodegradable coating. (~~3-18-22~~)

08. Board. The Idaho Water Resource Board. (3-18-22)

09. Bore Diameter. The diameter of the hole in the formation made by the drill bit or reamer. (3-18-22)

10. Borehole (also Well Bore and Boring). The subsurface hole created during the drilling process. (~~3-18-22~~)

11. Bottom Hole Temperature ~~of an Existing or Proposed Well~~. The temperature of the ground water encountered in the bottom of a well or borehole. (~~3-18-22~~)

12. Casing. The permanent ~~conduit~~ steel or thermoplastic pipe installed in a well to ~~provide physical stabilization, prevent caving or collapse of the borehole,~~ maintain the well opening and serve as a solid inner barrier to allow for the installation of an annular seal. ~~Casing does not include temporary surface casing, well screens, liners, or perforated casing as otherwise defined by these rules.~~ (~~3-18-22~~)

13. Cathodic Protection Well. Any artificial excavation ~~in excess of~~ more than eighteen (18) feet in vertical depth constructed for the purpose of protecting certain metallic equipment in contact with the ground. Commonly referred to as cathodic protection. (~~3-18-22~~)

14. Closed Loop Heat Exchange Well. A ~~ground source thermal exchange~~ well ~~constructed for the purpose of installing any underground system~~ through which thermal exchange fluids are circulated but remain isolated from direct contact with the subsurface or ground water. (~~3-18-22~~)

15. Conductor Pipe. The first and largest diameter string of permanent casing ~~to be~~ installed in a ~~low temperature geothermal resource~~ well when multiple casing strings are necessary. (~~3-18-22~~)

16. Confining Layer. A subsurface zone of low-permeability earth material that naturally acts to restrict or retard the movement of water or contaminants from one zone to another. ~~The term does not include topsoil.~~ (~~3-18-22~~)

17. Consolidated Formations. Naturally-occurring geologic formations that have been lithified (turned to stone) such as sandstone and limestone, or igneous rocks such as basalt and rhyolite, and metamorphic

rocks such as gneiss and slate. (3-18-22)

18. Contaminant. ~~Any physical, chemical, ion, radionuclide, synthetic organic compound, microorganism, waste, or other substance that does not occur naturally in ground water or that naturally occurs at a lower concentration.~~ Any physical, chemical, biological, or radiological substance or matter. (~~3-18-22~~)

19. Contamination. The introduction into the natural ground water of any physical, chemical, biological or radioactive material that may: (3-18-22)

a. ~~Cause a violation of Idaho Ground Water Quality Standards; or~~ Cause a violation of Standards found in IDAPA 58.01.11, "Ground Water Quality Rule," or primary federal drinking water regulation found in 40 CFR Parts 141 and 142 whichever is more stringent.; or (~~3-18-22~~)

b. Adversely affect the health of the public; or (3-18-22)

c. Adversely affect a designated or beneficial use of the State's ground water. Contamination includes the introduction of heated or cooled water into the subsurface that will alter the ground water temperature and render the local ground water less suitable for beneficial use.~~, or the introduction of any contaminant that may cause a violation of IDAPA 58.01.11, "Ground Water Quality Rule."~~ (3-18-22)

20. Decommissioned (Abandoned) Well. Any well that has been permanently removed from service and filled or plugged in accordance with these rules ~~so as~~ to meet the intent of these rules. A properly decommissioned well will not: (~~3-18-22~~)

a. Produce or accept fluids; (3-18-22)

b. Serve as a conduit for the movement of contaminants inside or outside the well casing; or (3-18-22)

c. Allow the movement of surface or ground water into unsaturated zones, into another aquifer, or between aquifers. (3-18-22)

21. Decontamination. The process of ~~cleaning~~ removing contaminants from equipment intended for use in a well ~~in order to prevent the introduction of contaminants into the subsurface and contamination of natural ground water~~. (~~3-18-22~~)

22. Department. The Idaho Department of Water Resources. (3-18-22)

23. Dewatering Well. A well constructed for the purpose of improving slope stability, drying up ~~borrow pits~~land, or intercepting seepage that would otherwise enter an excavation. (~~3-18-22~~)

24. Director. The Director of the Idaho Department of Water Resources ~~or his duly authorized representatives~~. (~~3-18-22~~)

25. Disinfection. The introduction of chlorine or other agent or process approved by the Director in sufficient concentration and for the time required to inactivate or kill fecal and Coliform bacteria, indicator organisms, and other ~~potentially harmful~~ pathogens. (~~3-18-22~~)

26. Draw Down. The difference in vertical distance between the static water level and the pumping water level. (3-18-22)

27. Drive Point (also known as a Sand Point). A conduit ~~pipe or casing~~ through which ground water of any temperature is sought or encountered; created by joining a "drive point unit" to a length of pipe and driving

the assembly into the ground. (3-18-22___)

~~**28. Exploratory Well**. A well drilled for the purpose of discovering or locating new resources in unproven areas. They are used to extract geological, hydrological, or geophysical information about an area.~~ ~~(3-18-22)~~

28. Geotechnical Borings. Borings drilled for the sole purpose of obtaining soil samples or other data to determine subsurface geologic properties. (___)

~~**29. Global Positioning System (GPS)**. A global navigational receiver unit and satellite system used to triangulate a geographic position.~~ ~~(3-18-22)~~

~~**30. Hydraulic Conductivity**. A measurement of permeability.~~ ~~(3-18-22)~~

~~31~~29. **Hydraulic Fracturing**. A process whereby water or other fluid is pumped under high pressure into a well to further fracture the reservoir rock or aquifer surrounding the production zone of a well to increase well yield. (3-18-22___)

~~32~~30. **Injection Well**. ~~Any excavation or artificial opening into the ground which meets the following three (3) criteria:~~ ~~(3-18-22)~~

~~**a.** It is a bored, drilled or dug hole, or is a driven mine shaft or driven well point; and~~ ~~(3-18-22)~~

~~**b.** It is deeper than its largest straight line surface dimension; and~~ ~~(3-18-22)~~

~~**c.** It is used for or intended to be used for subsurface placement of fluids.~~ ~~(3-18-22)~~
Any feature that is operated to allow the subsurface emplacement of fluids that also meets at least one (1) of the following criteria: (___)

a. A bored, or driven shaft whose depth is greater than the largest surface dimension; (___)

b. A dug hole whose depth is greater than the largest surface dimension; (___)

c. An improved sinkhole; or (___)

d. A subsurface fluid distribution system. (___)

~~33~~31. **Intermediate String or Casing**. ~~The c~~Casing installed and sealed ~~below the surface casing within a low temperature geothermal resource well~~ to isolate undesirable water or zones below ~~the bottom of~~ the ~~surface~~first string of permanent casing. Such strings may either be lapped into the ~~surface~~ casing above it or extend to land surface. (~~3-18-22~~___)

~~34~~32. **Liner**. ~~(3-18-22~~

~~**a.** A conduit~~ removable steel or thermoplastic pipe ~~that can be removed from the borehole or well that is~~ used ~~to serve~~ as access and protective housing for pumping equipment and provide a pathway for the upward flow of water within the well.
(~~3-18-22~~___)

~~**b.** Liner does not include casing required to prevent caving or collapse, or both, of the borehole or serve as a solid inner barrier to allow for the installation of an annular seal.~~ ~~(3-18-22)~~

~~**35. Mineralized Water**. Any naturally-occurring ground water that has an unusually high amount of~~

~~chemical constituents dissolved within the water. Water with five thousand (5000) mg/L or greater total dissolved solids is considered mineralized. (3-18-22)~~

~~36~~33. **Modify**. To deepen a well, increase or decrease the diameter of the casing or the well bore, install a liner, place a screen, perforate existing casing or liner, alter the seal between the casing and well bore, or alter the well to not meet well construction standards. (~~3-18-22~~)

~~37~~34. **Monitoring Well**. Any well ~~more than eighteen (18) feet in vertical depth constructed~~ used to evaluate, observe or determine the quality, quantity, temperature, pressure or other characteristics of the ground water or aquifer.~~–~~ (~~3-18-22~~)

~~38~~35. **Neat Cement**. A mixture of water and cement in the ratio of not more than six (6) gallons of water to ninety-four (94) pounds of Portland cement ~~(neat cement)~~. Other neat cement ~~grout~~ mixes may be used if specifically approved by the Director. (~~3-18-22~~)

~~39~~36. **Neat Cement Grout**. Up to five percent (5%) bentonite by dry weight may be added per sack of cement ~~(neat cement grout)~~ and the water increased to not more than six and one-half (6.5) gallons per sack of cement. Other neat cement grout mixes may be used if specifically approved by the Director. These grouts must be mixed and installed in accordance with the American Petroleum Institute Standards - API Class A through H. As found in API RP10B, "Recommended Practice for Testing Oil Well Cements and Cement Additives," current edition or other approved standards. (~~3-18-22~~)

~~40~~37. **Oxidized Sediments**. Sediments, characterized by distinct coloration, typically shades of brown, red, or tan, caused by the alteration of certain minerals in an environment with a relative abundance of oxygen. (~~3-18-22~~)

~~41~~38. **Perforated Well Casing**. Well casing that has been modified by the addition of openings created by drilling, torch cutting, saw cutting, mechanical down-hole perforator, or other method. (~~3-18-22~~)

~~42~~39. **Pitless Adaptor or Pitless Unit**. ~~An assembly of parts designed for attachment to a well casing which allows buried pipe to convey water from the well or pump and allows access to the interior of the well casing for installation or removal of the pump or pump appurtenances, while maintaining a water tight connection through the well casing and preventing contaminants from entering the well installed through the well casing.~~ An assembly that provides a watertight connection between the pump installed inside the well casing and buried pipe outside the well casing.~~———~~ (~~3-18-22~~)

~~43~~40. **Potable Water**. Water of adequate quality for human consumption. (~~3-18-22~~)

~~44~~41. **Pressure Grouting (Grouting)**. The process of pumping and placing an approved grout mixture into the required annular space, well bore, casing or screens by positive displacement from bottom to top using a tremie pipe, Halliburton method, float shoe, or other method approved by the Director. (~~3-18-22~~)

~~45~~42. **Production Casing**. The final string of casing or tubing ~~through which a low temperature geothermal resource is produced. This string extends~~extending from the producing zone to land surface.(~~3-18-22~~)

~~46~~43. ~~**Public Water System**. A system for the provision to the public of water for human consumption through pipes or, after August 5, 1998, other constructed conveyances, if such system has at least fifteen (15) service connections, regardless of the number of water sources or configuration of the distribution system, or regularly serves an average of at least twenty five (25) individuals daily at least sixty (60) days out of the year. Such term includes: (3-18-22)~~

~~**a.** Any collection, treatment, storage, and distribution facilities under the control of the operator of such system and used primarily in connection with such system; and (3-18-22)~~

~~**b.** Any collection or pretreatment storage facilities not under such control that are used primarily in connection with such system. (3-18-22)~~

~~**c.** Such term does not include any "special irrigation district." (3-18-22)~~

~~**d.** A public water system is either a "community water system" or a "non-community water system." (3-18-22)~~**Public Drinking Water System.** A system for the provision to the public of water for human consumption through pipes or, after August 5, 1998, other constructed conveyances, if such system has at least fifteen (15) service connections, regardless of the number of water sources or configuration of the distribution system, or regularly serves an average of at least twenty-five (25) individuals daily at least sixty (60) days out of the year. Such term includes: any collection, treatment, storage, and distribution facilities under the control of the operator of such system and used primarily in connection with such system; and any collection or pretreatment storage facilities not under such control which are used primarily in connection with such system. Such term does not include any "special irrigation district." A public drinking water system is either a "community water system" or a "noncommunity water system" as further defined as: ( )

a. Community water system. A public drinking water system which serves at least fifteen (15) service connections used by year-round residents or regularly serves at least twenty-five (25) year-round residents. ( )

b. Noncommunity water system. A public drinking water system that is not a community water system. A non-community water system is either a transient noncommunity water system or a non-transient noncommunity water system. ( )

c. Nontransient noncommunity water system. A public drinking water system that is not a community water system and that regularly serves at least twenty-five (25) of the same persons over six (6) months per year. ( )

d. Transient noncommunity public drinking water system. A noncommunity water system which does not regularly serve at least twenty-five (25) of the same persons over six (6) months per year. ( )

~~47~~44. **Reduced Sediments**. Sediments, characterized by distinct coloration, typically shades of blue, black, gray, or green, caused by the alteration of certain minerals in an oxygen poor environment. (~~3-18-22~~)

~~48~~45. **Remediation Well**. A well used to inject or withdraw fluids, vapor, or other solutions approved by the Director for the purposes of remediating, enhancing quality, or controlling potential or known contamination. Remediation wells include those used for air sparging, vapor extraction, or injection of chemicals for remediation or in-situ treatment of contaminated sites. (~~3-18-22~~)

~~49~~46. **Sand**. Any sediment particle retained on a U.S. standard sieve #200 (Seventy-five hundredths (0.075) mm to two (2) mm). (~~3-18-22~~)

~~50~~47. **Screen (Well Screen)**. A commercially produced structural tubular retainer with standard sized openings to facilitate production of sand free water. (~~3-18-22~~)

~~51~~48 **Seal or Sealing**. The placement of approved seal material in the required annular space between a borehole and casing, between casing strings, or as otherwise required to create a low permeability barrier and prevent movement or exchange of fluids. ~~Seals are required in the construction of new wells, repair of existing wells, and in the decommissioning (abandonment) of wells. Seals are essential to the prevention of waste and contamination of ground water.~~ (~~3-18-22~~)

~~52~~49. **Start Card**. An expedited drilling permit process for the construction of cold water, single-family residential wells. (~~3-18-22~~___)

~~53~~50. **Static Water Level**. The ~~height at which~~ depth to water ~~will rise~~ in a well under non-pumping conditions.

(~~3-18-22~~___)

~~54~~51. **Surface Casing**. The first string of casing in a low temperature geothermal resource well which is set and sealed after the conductor pipe to anchor blow out prevention equipment and to case and seal out all existing cold ground water zones. (~~3-18-22~~___)

~~55~~52. **Temporary ~~Surface~~ Casing**. Steel pipe used to support the borehole within unstable or unconsolidated formations during construction of a well that will be removed following the installation of the permanent well casing and prior to or during placement of an annular seal. (~~3-18-22~~___)

~~56~~53. **Thermoplastic/PVC Casing**. Plastic piping material meeting the requirements of ASTM F 480 and NSF-WC and specifically designed for use as well casing. (~~3-18-22~~___)

~~57~~54. **Transmissivity**. The capacity of an aquifer to transmit water through its entire saturated thickness. (~~3-18-22~~___)

~~58~~55. **Tremie Pipe**. A small-diameter pipe used to convey grout, dry bentonite products, or filter pack materials into the annular space, borehole, or well from the bottom to the top of a borehole or well. (~~3-18-22~~___)

~~59~~56. **Unconfined Aquifer**. An aquifer in which the water table is in contact with and influenced by atmospheric pressure through pore spaces in the overlying formation(s). (~~3-18-22~~___)

~~60~~57. **Unconsolidated Formation**. A naturally-occurring earth formation that has not been lithified. Alluvium, soil, sand, gravel, clay, and overburden are some of the terms used to describe this type of formation. (~~3-18-22~~___)

~~61~~58. **Unstable Unit**. Unconsolidated formations, and those portions of consolidated formations, that are not sufficiently hard or durable enough to sustain an open borehole without caving or producing obstructions without the aid of fluid hydraulics or other means of chemical or physical stabilization. (~~3-18-22~~___)

~~62~~59. **Unusable Well**. Any well that can not be used for its intended purpose or other beneficial use authorized by law. (~~3-18-22~~___)

~~63~~60. **Waiver**. Approval in writing by the Director of a written request from the well driller and the well owner proposing specific variance from the minimum well construction standards. (~~3-18-22~~___)

~~64~~61. **Waste**. The loss, transfer, or subsurface exchange of a ground water resource, thermal characteristic, or natural artesian pressure from any aquifer caused by improper construction, misuse, or failure to properly maintain a well. Waste includes: (~~3-18-22~~___)

a. The flow of water from an aquifer into an unsaturated subsurface zone; (3-18-22)

b. The transfer or mixing, or both, of waters from one aquifer to another (aquifer commingling); or (3-18-22)

c. The release of ground water to the land surface whenever such release does not comply with an authorized beneficial use. (3-18-22)

~~65~~62. **Water Table**. ~~The height at which water will rise in a well; also t~~The upper surface of the zone of saturation in an unconfined aquifer. This level will change over time due to changes in water supply and aquifer impacts. ~~(3-18-22)~~

~~66~~63. **Well**. ~~(3-18-22)~~

~~a.~~ An artificial excavation or opening in the ground more than eighteen (18) feet in vertical depth below land surface by which ground water of any temperature is sought or obtained. ~~The depth of a well is determined by measuring the maximum vertical distance between the land surface and the deepest portion of the well~~. Any water encountered in the well is considered to be obtained for the purpose of these rules.~~; or~~ (~~3-18-22~~)

~~b. Any waste disposal and injection well, as defined in Section 42-3902, Idaho Code. (3-18-22)~~

~~c. Well does not mean: (3-18-22)~~

~~i. A hole drilled for mineral exploration; or (3-18-22)~~

~~ii. Holes drilled for oil and gas exploration which are subject to the requirements of Section 47-320, Idaho Code; or (3-18-22)~~

~~iii. Holes drilled for the purpose of collecting soil samples above the water table. (3-18-22)~~

~~67~~64. **Well Development**. The act of bailing, jetting, pumping, or surging water in a well to remove drilling fluids, fines, and suspended materials from within a completed well and production zone ~~in order~~ to establish the optimal hydraulic connection between the well and the aquifer. (~~3-18-22~~)

~~68~~65. **Well Driller or Driller**. Any person who operates drilling equipment, or who controls or supervises the construction of a well, and is licensed under Section 42-238, Idaho Code (~~3-18-22~~)

~~69~~66. **Well Drilling or Drilling**. The act of constructing a new well or modifying ~~or changing~~ the construction of an existing well. (~~3-18-22~~)

~~70~~67. **Well Owner**. Any person, firm, partnership, co-partnership, corporation, association, or other entity, or any combination of these, who owns the property on which the well is or will be located or has secured ownership of the well by means of a deed, covenant, contract, easement, or other enforceable legal instrument for the purpose of benefiting from the well. (~~3-18-22~~)

~~71~~68. **Well Rig (Drill Rig)**. Any power driven percussion, rotary, boring, digging, jetting, ~~or~~ auguring, ~~machine used in the construction~~or any other power-driven mechanical equipment used in the drilling of a well.(~~3-18-22~~)

011. -- 024. (RESERVED)

025. CONSTRUCTION OF ~~COLD~~ GROUND WATER WELLS (RULE 25).

All persons constructing wells must comply with the requirements of Section 42-238, Idaho Code, and IDAPA 37.03.10, "Well Driller Licensing Rules." The standards specified in Rule 25 apply to all wells, including waste disposal and injection wells as defined in Section 42-3902, Idaho Code, with a bottom hole temperature ~~of eighty-five (85) degrees Fahrenheit or~~ less than two hundred twelve (212) degrees Fahrenheit. Wells with a bottom hole temperature greater than eighty-five (85) degrees Fahrenheit, but less than two hundred twelve (212) degrees Fahrenheit, must meet also the requirements of Rule 30. ~~in addition to meeting the requirements of Rule 25. These standards also apply to any waste disposal and injection well as defined in Section 42-3902, Idaho Code.~~(~~3-18-22~~)

01. General. The well driller must construct each well as follows: (~~3-18-22~~)

a. In accordance with these rules and with the conditions of approval of any drilling permit issued

pursuant to Section 42-235, Idaho Code, and in a manner that will prevent waste and contamination of the ground water resources of the state of Idaho. The adopted standards are minimum standards which must be adhered to in the construction of all new wells, and in the modification or decommissioning ~~(abandonment)~~ of existing wells. The well driller is charged with the responsibility of preventing waste ~~or~~ and contamination of the ground water resources during the construction, modification or abandonment of a well. The Director may add conditions of approval to a drilling permit issued pursuant to Rule 45 of these rules to require that a well be constructed, modified, maintained or decommissioned ~~(abandoned)~~ in accordance with additional standards when necessary to protect ground water resources and the public health and safety from ~~existing~~ contamination and waste ~~or contamination~~ during the construction, modification or decommissioning ~~(abandonment)~~ of a well. (~~3-18-22~~)

b. In consideration of the geologic and ground water conditions known to exist or anticipated at the well site. (3-18-22)

c. Such that it is capable of producing, where obtainable, the quantity of water to support the allowed or approved beneficial use of the well, subject to law~~:~~. (~~3-18-22~~)

d. Meet the siting and separation distance requirements in the table in this Subsection (025.01.d.). Additional siting and separation distance requirements are set forth by the governing district health department and the Idaho Department of Environmental Quality rules at IDAPA 58.01.03, "Individual/Subsurface Sewage Disposal Rules," and IDAPA 58.01.08, "Idaho Rules for Public Drinking Water Systems".

Separation of Well from:	**Minimum Separation Distance (feet)**
Existing Public Water Supply well, separate ownership	- 50
Other existing well, separate ownership	- 25
Septic drain field	- 100
Septic tank	- 50
Drainfield of system with more than 2,500 GPD of sewage inflow	- 300*
Sewer line - main line or sub-main, pressurized, from multiple sources	- 100
Sewer line - main line or sub-main, gravity, from multiple sources	- 50
Sewer line - secondary, pressure tested, from a single residence or building	- 25
Effluent pipe	- 50
Property line	- 5
Permanent buildings, other than those to house the well or plumbing apparatus, or both	- 10
Above ground chemical storage tanks	- 20
Permanent (more than six months) or intermittent (more than two months) surface water	- 50

Canals, irrigation ditches or laterals, & other temporary (less than two months) surface water	- 25
*This distance may be less if data from a site investigation demonstrates compliance with IDAPA 58.01.03, "Individual/Subsurface Sewage Disposal Rules," separation distances.	

(3-18-22)

02. Waivers. In unique cases where the Director concludes that the ground water resources will be protected against waste and contamination and the public health and safety are not compromised, a waiver of specific standards required by these rules may be approved prior to constructing, decommissioning, or modifying a well. The Director may request comments from IDEQ or local Health Districts when considering waivers seeking a variance of separation distances established by IDEQ Rules, which includes separation distances between wells and septic tanks, wells and septic drain fields, wells and sewer lines, or wells and effluent pipes. ( )

a. To request a waiver the well driller and well owner must: (3-18-22)

i. Jointly submit a detailed plan and written request identifying a specific Rule or Rules proposed to be waived. Additionally, the plan must detail the well construction process that will be employed in lieu of complete Rule compliance: (3-18-22)

ii. Prior to submittal, the well driller and the well owner must sign the plan and written request acknowledging concurrence with the request; and (3-18-22)

iii. Submit the plan and request by facsimile, e-mail, or letter. (3-18-22)

b. The Director will evaluate and respond to the request within ten (10) business days of receiving the request. (3-18-22)

i. If the request for waiver is approved, the intent of the rules will be served, and all standards not waived will apply. Waivers approved by the Director will not supersede the requirements of other regulatory agencies without specific concurrence from that agency. Work activity related to a waiver request will not proceed until ~~a~~ written or verbal approval is granted by the Director. (~~3-18-22~~)

ii. Any verbal approval will be followed by a written approval. (3-18-22)

03. Records. ~~In order t~~To enable a comprehensive survey of the extent and occurrence of the state's ground water resource, the coordinates of every newly constructed, modified or decommissioned ~~(abandoned)~~ well location must be identified by latitude and longitude with a global positioning system (GPS) and recorded on the driller's report in degrees and decimal minutes and within the nearest 40 acre parcel using the Public Land Survey System. Every well driller must maintain records as described in IDAPA 37.03.10 "Well Driller Licensing Rules," pursuant to Section 42-238(11), Idaho Code, and provide the well owner with a copy of the approved well drilling permit and a copy of the well driller's report when submitted to the Director. (~~3-18-22~~)

04. Casing. The well driller must install casing in every well. Steel ~~or thermoplastic~~ casing may be installed in any well, thermoplastic casing may be installed in a well with a bottom hole temperature of eighty-five (85) degrees Fahrenheit or less if drilling of the borehole confirms its suitability for use. ~~Thermoplastic pipe must not be installed in a well with a bottom hole temperature greater than eighty-five (85) degrees Fahrenheit.~~ All casing to be installed must be new or in like-new condition, free of defects, and clearly marked by the manufacturer with all specifications required by these rules. For all wells the casing must extend at least twelve (12) inches above land surface and finished grade and to a minimum depth below land surface as required by these rules. Concrete slabs around a well casing will be considered finished grade (Figure 01, Appendix A). The well driller must install casing of sufficient strength to withstand calculated and anticipated subsurface forces and corrosive effects. The well driller must install casings sufficiently plumb and straight to allow the installation or removal of screens, liners, pumps and

pump columns without causing adverse effects on the operation of the installed pumping equipment. (3-18-22___)

a. Steel Casing. When steel casing lengths are joined together, they joints must be joined by welded joints or screw-couple jointsand be watertight. All connection must be water tight. If steel casing Welded joints are welded, the weld must be at least as thick as the well casing and fully penetrating. Welding rods or flux core wire of at least equal quality to the casing metal must be used. Casing ends to be joined by welding must be properly prepared, beveled and gapped to allow full penetration of the weld. All stick welded joints must have a minimum of two (2) passes including a "root" pass and have minimal undercut when complete. (3-18-22___)

i. In addition to meeting these standards, all wells that are constructed for public drinking water systems must meet all of the casing wall thickness requirements set forth by the Idaho Department of Environmental Quality Rules, IDAPA 58.01.08, "Idaho Rules for Public Drinking Water Systems." (3-18-22___)

ii. The well driller must install steel casing that meets or exceeds the American Society of Testing and Materials (ASTM) standard A53, Grade B or American Petroleum Institute (API) 5L Grade B, and that meets the following specifications for wall thickness:

Minimum Single-Wall Steel Well Casing Thickness1 for Selected Diameters (inches)

Nominal Diameter (in.)[3]	**6[2]**	**8**	**10**	**12**	**14**	**16**	**18**	**20**	**22**	**24**	**26**	**28**	**30**
Depth (ft.)	Nominal Wall Thickness (in.)[1]												
<100	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250
100-200	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250
200-300	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250
300-400	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.375	0.375	0.375	0.375
400-600	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.375	0.375	0.375	0.375	0.375
600-800	0.250	0.250	0.250	0.250	0.250	0.250	0.375	0.375	0.375	0.375	0.375	0.375	0.375
800-1000	0.250	0.250	0.250	0.250	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375
1000-1500	0.280	0.322	0.365	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375
1500-2000	0.280	0.322	0.365	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375

1 Compliance with the minimum nominal wall thicknesses listed is required for any depth or location where casing is used to prevent caving or collapse, or both, of the borehole or serves as a solid inner barrier to allow for the installation of an annular seal.
2 For nominal casing diameters less than six (6) inches, the minimum nominal wall thickness must be equivalent to ASTM Schedule 40.
3 For any other casing diameter not addressed herein, prior approval by the Director is required.

(3-18-22)

b. Thermoplastic Casing. ~~Thermoplastic casing may be used in monitoring wells and cold water wells if drilling of the borehole confirms its suitability for use. (3-18-22)~~

~~i.~~ Thermoplastic casing must ~~conform to ASTM F 480 and NSF WC~~ have a minimum rating of SDR-21 or a minimum rating of Schedule 40 for nominal diameters of four (4) inches or less. The well driller must not use thermoplastic casing under any condition where the manufacturer's resistance to hydraulic collapse pressure (RHCP) or total depth specifications are exceeded. Thermoplastic casing extending above-ground must be protected from physical and ultraviolet light damage by enclosing it within steel casing extending at least twelve (12) inches above land surface and finished grade and to a minimum depth of eighteen (18) feet below land surface or five (5) feet below land surface for monitoring wells. (~~3-18-22~~)

ii~~.~~ ~~Thermoplastic pipe used in wells as casing or liner must have a minimum rating of SDR-21. For nominal diameters of four (4) inches or less, a minimum rating of Schedule 40 is required.~~ If used as casing within unconsolidated or unstable consolidated formations, thermoplastic pipe must be centralized and fully supported throughout the unstable zone(s) with filter pack or seal material as required by these rules. (~~3-18-22~~)

ii~~i~~. All thermoplastic casing ~~and liner~~ must be installed in accordance with the manufacturer's recommendations and specifications, and as required by these rules. The well driller will not treat thermoplastic pipe in any manner that would adversely affect its structural integrity. The well driller must: (~~3-18-22~~)

(1) Ensure that the weight of the pump assembly, if secured to the thermoplastic pipe, does not exceed the weight limitations per manufacturer's recommendations or cause damage to the pipe resulting in breaks or leaks. (3-18-22)

(2) Not use Type III (high-early strength) Portland cement-based seal materials in direct contact with thermoplastic pipe unless approved by the Director. (3-18-22)

(3) Not drive, drop, force, or jack thermoplastic pipe into place. Thermoplastic pipe must be lowered or floated into an oversized, obstruction-free borehole. (3-18-22)

c. Perforated Well Casing. Perforated well casing may be used in the construction or decommissioning of a well when such application does not violate any standards required by these rules. (3-18-22)

05 Liner. ~~In addition to well casing, liners may be installed in wells t~~To prevent damage to pumping equipment~~.~~, ~~S~~steel or thermoplastic pipe meeting the specifications and conditions for use as casing may be installed as liner. ~~in a well with a bottom hole temperature of eighty-five (85) degrees Fahrenheit or less. Thermoplastic liner must conform to ASTM F 480 and NSF WC.~~ Thermoplastic liners must not be used in unconsolidated formations or unstable units. (~~3-18-22~~)

06. Screen. Well screens must be used in constructing a well when necessary to avoid sand production (see sand production, Rule 25, Subsection 025.24). Well screens must be commercially manufactured, be slotted, louvered or wire wrapped, and be installed ~~according~~ to the manufacturer's specifications. (~~3-18-22~~)

a. Screens may require a filter pack consisting of sand or gravel to further reduce the quantity of sand produced from the well. (3-18-22)

b. The well driller will not install well screens, perforated casing or filter pack across a confining layer(s) separating aquifers of different pressure, temperature, or quality. (3-18-22)

07. Use of Approved Sealing Materials and Required Annular Space. Well casings must be sealed in the required annular space with approved material to prevent the possible downward movement of ~~contaminated~~ surface waters or other fluids in any annular space around the well casing (Figure 02, Appendix A). Proper sealing is also required to prevent the movement of ground water either upward or downward from zones of different pressure,

temperature or quality within the well or outside the casing. The well driller must notify by phone the Department's appropriate Region Office at least four (4) hours in advance of placing any annular seal to provide Department staff the opportunity to observe seal placement. (~~3-18-22~~)

a. All casing to be sealed must be adequately centralized to ensure uniform seal thickness around the well casing. Surface seals must extend to not less than thirty-eight (38) feet below land surface for well depths greater than thirty-eight (38) feet. For well depths less than thirty-eight (38) feet, seals must extend to depths as hereafter required. (3-18-22)

b. Seals are required at depths greater than thirty-eight (38) feet in artesian wells or to seal through confining layers separating aquifers of differing pressure, temperature, or quality in any well. (3-18-22)

c. When a well is modified and the existing casing is moved or the original seal is damaged, or a well driller discovers that a seal was not installed or has been damaged, the well driller must repair, replace, or install a seal around the permanent casing that is equal to or better than required when the well was originally constructed. (3-18-22)

d. Manufactured packers, ~~and~~ shale traps, and cementing baskets may be used as devices to retain approved seal material when installing a required annular seal. Whenever these devices are used to retain seal material, the well driller must comply with the manufacturer's recommendations for installation. (~~3-18-22~~)

e. If a temporary casing has been installed, upon completion of the drilling, the annular space must be filled with approved seal material and kept full while withdrawing the temporary casing. Bentonite chips should be used with caution when the annular space between a temporary casing and permanent casing is filled with water. (3-18-22)

i. When attempts at removing a temporary casing are unsuccessful, the casing must be sealed in place by a method approved by the department. (3-18-22)

ii. The well driller must notify the department whenever a temporary casing can not be removed and propose a plan to adequately seal the casing to prevent waste and contamination of the ground water. The plan must detail how the casing will be sealed on the outside to a sufficient depth below land surface in addition to placement of any required formation seals through the interval at which the casing will remain. (3-18-22)

f. For mixed grout seals the minimum annular space required must provide for a uniform seal thickness not less than one (1) inch on all sides of the casing or a borehole at least two (2) inches larger than the outside diameter (OD) of the casing to be sealed (Figure 02, Appendix A). (Note: a seven and seven-eighths (7 7/8) inch diameter (eight (8) inch nominal) borehole around a six and five-eighths (6 5/8) inch OD (six (6) inch nominal casing does not satisfy the minimum annular space requirements). (3-18-22)

i. When placing grout seals with a removable tremie pipe between casing strings or between a borehole and casing, the required annular space must be ~~at least~~ one (1) inch or equal to the OD of the tremie pipe, whichever is greater. Permanent tremie pipes will be considered as a casing string and subject to minimum annular space requirements in addition to the annular space requirements around the well casing (Figure 03, Appendix A). (~~3-18-22~~)

ii. All grout seals must be placed from the bottom up, by using an approved method. Bentonite grout must not be used above the water table unless specifically designed and manufactured for such use and approved by the Director in advance. (3-18-22)

iii. If cement-based grout (neat cement or neat cement grout) is used to create a seal, the casing string sealed must not be moved or driven after the initial set. Construction must not resume for a minimum of twenty-four (24) hours following seal placement; (3-18-22)

g. For dry bentonite seals the minimum annular space required must provide for a uniform seal thickness not less than one and five-eighths (1 5/8) inches on all sides of the casing or a borehole at least four (4) inches larger than the "nominal diameter" of the casing to be sealed. e.g., (six and five-eighths (6 5/8) inch OD (six (6) inch nominal) casing requires a ten and three fourths (10 3/4) inch OD (ten (10) inch nominal) temporary casing or a nine and seven-eighths (9 7/8) inch (ten (10) inch nominal) minimum borehole). Listed below are additional annular space requirements and limitations for placement of dry bentonite seals: (3-18-22)

i. All dry bentonite seals must be tagged during placement and consider volumetric calculations to verify placement. (3-18-22)

ii. Installation of dry bentonite seals must be consistent with the manufacturers' recommendations and specifications for application and placement. (3-18-22)

iii. Granular bentonite must not be placed through water. (3-18-22)

iv. If a granular bentonite seal is placed deeper than two hundred (200) feet, the minimum annular space must be increased by at least one (1) inch e.g., (six and five-eighths (6 5/8) inch OD (six (6) inch nominal) casing requires a twelve and three fourths (12 3/4) inch OD (twelve (12) inch nominal) temporary casing or an eleven and seven eights (11 7/8) inch (twelve (12) inch nominal) minimum borehole). (3-18-22)

v. Bentonite chips and pellets may be placed through water or drilling fluid of appropriate viscosity. Bentonite chip seals placed through more than fifty (50) feet of water or drilling fluid will require the minimum annular space to be increased by at least one (1) inch e.g., (six and five-eighths (6 5/8) inch OD (six (6) inch nominal) casing requires a twelve and three fourths (12 3/4) inch OD (twelve (12) inch nominal) temporary casing or an eleven and seven eights (11 7/8) inch (twelve (12) inch nominal) minimum borehole). (~~3-18-22~~)

08. Sealing of Wells. Sealing requirements described herein are minimum standards that apply to all wells. The Director may establish alternate minimum sealing requirements in specific areas when it can be determined through detailed studies of the local hydrogeology that a specific alternate minimum will provide protection of the ground water from waste and contamination. (3-18-22)

a. Consolidated Formations. When a ~~water~~ well encounters consolidated formations above the water table and is ~~drilled into and~~constructed to acquire~~s~~ water from an unconfined aquifer ~~that consists of~~ in the consolidated formations ~~that are above the water table~~, casing must be installed so that it extends and is sealed to a depth not less than thirty-eight (38) feet (Figure 04, Appendix A). If the well depth is less than thirty-eight (38) feet from land surface, well casing must be installed and sealed five (5) feet into the consolidated formation or to a depth of eighteen (18) feet, whichever is greater. (~~3-18-22~~)

b. Unconsolidated Formations without Confining Layers of Clay. When a ~~water~~ well encounters unconsolidated formations above the water table and is ~~drilled into and~~constructed to acquire~~s~~ water from an unconfined aquifer ~~that is overlain with~~in the unconsolidated formations, ~~such as sand and gravel without confining layers of clay, well~~ casing must extend to at least five (5) feet below the water table and be sealed to a depth not less than thirty-eight (38) feet (Figure 05, Appendix A). If the well depth is less than thirty-eight (38) feet well casing must extend to at least five (5) feet below the water table or eighteen (18) feet, whichever is greater, and be sealed to a depth of at least eighteen (18) feet. (~~3-18-22~~)

i. The extensive (for example, one hundred fifty (150) feet thick or more) unconsolidated, non-stratified, sand and gravel of the Rathdrum Prairie are characterized by extremely high transmissivity and hydraulic conductivity. Under these conditions, sealing wells to depths greater than eighteen (18) feet may not be additionally protective. When a water well is drilled within the boundaries of the Rathdrum Prairie, (shown in Figure 06, Appendix A of these rules), ~~well~~ casing must extend to at least five (5) feet below the water table and be sealed to a depth not less than eighteen (18) feet (Figure 07, Appendix A). (~~3-18-22~~)

c. Unconsolidated Formations with Confining Layers of Clay. When a well is drilled into and acquires water from an aquifer that is overlain by unconsolidated deposits such as sand and gravel, and there are confining layers ~~of clay~~ above the water table, well casing must be installed from the land surface to the confining layer immediately above and in contact with the production zone and sealed to a depth not less than thirty-eight (38) feet (Figure 08, Appendix A). If the well depth is less than thirty-eight (38) feet from land surface, well casing must extend and be sealed into the first confining layer or to a depth of eighteen (18) feet, whichever is greater.
(~~3-18-22~~)

09. Sealing Artesian Wells. (3-18-22)

a. Unconsolidated Formations. When artesian water is encountered in unconsolidated formations, the production zone or open interval must be limited to zones of like pressure, temperature, and quality. Water encountered in oxidized sediments must not be comingled with water encountered in reduced sediments. Well casing must extend from land surface into the lower most confining layer above the production zone, and must be sealed: (3-18-22)

i. From land surface to a depth of at least thirty-eight (38) feet; and (3-18-22)

ii, Through all confining layer(s); and (3-18-22)

(1) A minimum of five (5) feet of seal material must be placed into or through the lower most confining layer above the production zone (Figure 09, Appendix A); or (3-18-22)

(2) Five (5) feet into or through the lowermost confining layer above the production zone and continuously to land surface (Figure 09, Appendix A). (3-18-22)

iii. If the well depth is less than thirty-eight (38) feet, the well must be cased and sealed from land surface to the confining layer in direct contact with the production zone or to a depth of eighteen (18) feet, whichever is greater. (3-18-22)

b. Consolidated Formations. When artesian water is encountered in a consolidated formation, well casing must be installed and sealed from land surface to a depth of at least thirty-eight (38) feet; and (3-18-22)

i. If the consolidated formation is overlain by a permeable formation(s) and water will rise above the consolidated formation, well casing must extend and be sealed at least five (5) feet into the confining portion of the consolidated formation (Figure 10, Appendix A). (3-18-22)

ii. If the well depth is less than thirty-eight (38) feet, the well must be cased and sealed from land surface five (5) feet into the confining consolidated formation or to a depth of eighteen (18) feet, whichever is greater. (3-18-22)

c. Control Device. Pursuant to Section 42-1603, Idaho Code, if the well flows at land surface, it must be equipped with a control device approved by the Director, so that the flow can be completely stopped. If leaks occur around the well casing or adjacent to the well, the ~~well~~ leakage must be ~~completed~~eliminated to the extent possible with approved seals, casing, or ~~cement grout to eliminate the leakage~~other means approved by the Director.
(~~3-18-22~~)

i. Flowing artesian wells must be equipped with an approved pressure gage fitting that will allow access for measurement of shut-in pressure of a flowing well. All pressure gage fittings must include control valves such that the pressure gage can be removed without resulting in artesian flow from the well. (3-18-22)

ii. The well driller must not move his well drilling rig from the site until all requirements have been satisfied. Some mixing of water may be allowed to develop an adequate water well; however, the mixing must be

restricted to water zones of similar pressure, temperature and quality. The driller must take precautions to case and seal out zones which may lead to waste or contamination. (3-18-22)

10. Alternative Methods for Sealing Wells. To accommodate ~~for~~ new technology, and in consideration of the wide variety of drilling equipment used to construct wells, other methods of sealing wells not specifically addressed in these rules may be allowed. The Director may consider specific proposals for alternative methods of sealing on a case by case basis. Director approval or acceptance of such procedures will not constitute a "waiver" of any requirements of these rules. In such cases, the well driller must provide sufficient information for the Director to determine that the full intent of the sealing requirements will be satisfied if an alternative method is employed. If it is determined that a specific alternate method will provide protection of the ground water from waste and contamination, the Director may issue a statement of acceptance qualifying the use and implementation of such methods. (~~3-18-22~~)

11. Injection Wells. In addition to meeting the requirements of Rule 25 of these rules, the construction, modification, or decommissioning ~~(abandonment)~~ of all injection wells over eighteen (18) feet in vertical depth must also comply with the IDAPA 37.03.03, "Rules for the Construction and Use of Injection Wells," and the injection well permit. Drillers must obtain from the Director a certified copy of the permit authorizing construction or modification of an injection well before beginning work. (~~3-18-22~~)

12. Cathodic Protection Wells. All cathodic protection wells must be constructed by a licensed well driller in compliance with these rules. A detailed construction plan must be included with the drilling permit application. (3-18-22)

13. Monitoring and Remediation Wells. All monitoring wells and remediation wells must be constructed and maintained in a manner that will prevent waste or contamination and as otherwise required by these rules. When a monitoring well or a remediation well is no longer useful or needed, the owner or operator of the well must decommission ~~(abandon)~~ the well in accordance with Rule 25, Subsection 025.16 of these rules. No person may divert ground water from a monitoring well or a remediation well for any purpose not authorized by the Director. The application for a permit for all monitoring wells and all remediation wells must include a design proposal prepared by a licensed engineer or registered geologist pursuant to Section 42-235, Idaho Code. Blanket permits for monitoring well and remediation well networks may be approved for site-specific monitoring and remediation programs. The designs and specification for monitoring wells and remediation wells must demonstrate that: (~~3-18-22~~)

a. The ground water resources are protected against waste and contamination; (3-18-22)

b. The well(s) will inject or withdraw only fluids, gases or solutions approved by the Director; (3-18-22)

c. The well(s) will be constructed ~~so as~~ to prevent aquifer commingling; and (~~3-18-22~~)

d. The well(s) will be properly decommissioned ~~(abandoned)~~ upon project completion and in accordance with these rules. (~~3-18-22~~)

14. Closed Loop Heat Exchange Wells. The well driller must construct closed loop heat exchange wells consistent with these rules. The well driller is not required to install steel casing in such wells. When constructing a closed loop heat exchange well, the well driller must: (3-18-22)

a. Construct each borehole of sufficient size to provide the annular space required by these rules. (3-18-22)

b. Seal the annular space of each borehole with approved seal material in accordance with these rules; (3-18-22)

c. Install fluid-tight circulating pipe, composed of high-density polyethylene, grade PE3408, minimum cell classifications PE355434C or PE345434C conforming to ASTM Standard D3350, or another Director-approved pipe; (~~3-18-22~~)

d. Join pipe using thermal fusion techniques according to ASTM Standards D-3261 or D-2683. All personnel creating such system joints must be trained in the appropriate thermal fusion technologies; (3-18-22)

e. Use only propylene glycol, or other circulating fluid approved by the Director; (3-18-22)

f. Ensure that any other system additive is NSF approved and has prior approval from the Director; (3-18-22)

g. Pressure test each loop with potable water prior to grout installation; (3-18-22)

h. Pressure test the system with potable water prior to installation of the circulating fluid at one hundred percent (100%) of the designed system operating pressure for a minimum duration of twenty-four (24) hours; and (3-18-22)

i. Properly repair or decommission ~~(abandon)~~ all loops failing the test by pressure pumping approved seal material through the entire length of each failed loop. After grouting, loop ends must be fused together or capped.
(~~3-18-22~~)

15. Access Port or Pressure Gage. Upon completion ~~of a well and before removal of the well rig from the site,~~ the well must be equipped with an access port that will allow for measurement of the depth to water or an approved pressure gage fitting that will allow access for measurement of shut-in pressure of an artesian flowing well. All pressure gage fittings must include control valves such that the pressure gage can be removed. Approved access ports are illustrated in Figures 1 and 11, APPENDIX A, together with approved locations for pressure gage fittings. Air lines are not a satisfactory substitution for an access port. Nonflowing domestic and stock water wells that are to be equipped with a sanitary seal with a built-in access port are exempt from this requirement.(~~3-18-22~~)

16. Decommissioning ~~(Abandoning)~~ of Wells. (~~3-18-22~~)

a. The well owner is charged with maintaining and properly decommissioning ~~(abandoning)~~ a well in a manner that will prevent waste or contamination, or both, of the ground water. No person is allowed to decommission a well in Idaho without first obtaining a driller's license or receiving a waiver of the license requirement from the Director of the Department of Water Resources. Authorization is required from the Director prior to decommissioning any well. Upon decommissioning, the person who decommissioned the well must submit to the Director a report describing the procedure. (3-18-22)

b. The Director may require decommissioning of a well in compliance with the provisions of these rules, if the well: (3-18-22)

i. Does not meet minimum well construction standards; (3-18-22)

ii. Meets the definition of an unusable well; (3-18-22)

iii. Poses a threat to human health and safety; (3-18-22)

iv. Is in violation of IDAPA 58.01.11, "Ground Water Quality Rule"; or (3-18-22)

v. Has no valid water right or other authorization acceptable to the Director for use of the well.

(3-18-22)

c. When required by the Director, decommissioning must be done in accordance with the following: (3-18-22)

i**.** Cased wells and boreholes without a continuous seal from the top of the intakes or screen to the surface. The well driller must use one (1) of the following methods as applicable: (3-18-22)

(1) The Director may require well casing be perforated every five (5) feet from the bottom of the casing to within five (5) feet of the surface. Perforations made must be adequate to allow the free flow of seal material into any voids outside the well casing. There must be at least four equally spaced perforations per section circumference. Approved grout must be pressure pumped to fill any voids outside of the casing. A sufficient volume must be used to completely fill the well and annular space; or (3-18-22)

(2) Fill the borehole with approved seal material as the casing is being removed. (3-18-22)

ii**.** Cased wells and boreholes with full-depth seals. If the well is cased and sealed from the top of the screen or production zone to the land surface, the well must be ~~completely~~ filled with approved seal material. (~~3-18-22~~)

iii**.** Uncased wells must be ~~completely~~ filled with approved seal material. (~~3-18-22~~)

iv. Dry hole wells or wells from which the quantity of water to meet a beneficial use cannot be obtained must be decommissioned with ~~cement grout, concrete or other~~ approved seal material in accordance with these rules. (~~3-18-22~~)

17. Completion of a Well. The Director will consider that every well is completed when the well drilling equipment has been removed, unless written notice has been given to the Director by the well driller that he intends to return and do additional work on the well within a specified period ~~of time~~. Upon completion of the well, the well must meet all ~~of the~~ required standards. (~~3-18-22~~)

a. Upon completion of drilling and prior to removal of well drilling equipment from a water well site, the top of the casing must be completely covered with: (3-18-22)

i. A one-fourth inch (1/4") thick solid, new or like-new steel plate with a three-fourths inch (3/4) threaded and plugged access port, welded to and completely covering the casing (Figure 12, Appendix A); or (3-18-22)

ii. A threaded cap, or a commercially manufactured watertight sanitary well cap (Figure 12, Appendix A); or (3-18-22)

iii. A commercially manufactured water-tight, snorkel-vented or non-vented well cap on any well susceptible to submergence; or (3-18-22)

iv. A control device approved by the Director per Section 42-1603, Idaho Code, on any well that flows at land surface (Figure 11, Appendix A). (3-18-22)

b. Upon the completion of every well, the well driller must permanently affix the stainless steel well tag to the steel ~~surface~~ casing in a manner and location that maintains tag legibility. For closed loop heat exchange wells, the well driller must obtain approval for the well tag placement and method of attachment. The well driller must secure each tag by: (~~3-18-22~~)

i. A full-length weld across the top and down each side of the tag; or (3-18-22)

ii. Using one (1) stainless steel, closed-end domed rivet near each of the four (4) corners of the tag. (3-18-22)

iii. Prior to welding or riveting, the tag must be pre-shaped to fit the casing such that both sides to be welded or riveted touch the casing and no gaps exist between the tag and casing. (3-18-22)

18. Pitless Adapters. When a pitless adaptor is used (Figure 12, Appendix A), the adaptor should be of the type approved by the NSF International testing laboratory or the approval code adopted by the Pitless Adaptor Division of the Water Systems Council. The pitless adaptor, including the cap or cover, casing extension, and other attachments, must be so designed and constructed to be water-tight and to prevent contamination of the potable water supply from external sources. If a permanent surface or outer casing is installed and is cut off or breached to install the pitless adapter on an inner well casing or liner, the space between the permanent outer casing and the liner or inner casing must be sealed. The well owner or person installing the pitless adaptor must then seal the excavation surrounding the pitless adaptor using an approved seal material. (3-18-22)

19. Pump Installation. No person is allowed to install a pump into any well that would cause a violation ~~of Rule 25,~~ of these rules or other applicable rules or state law. (~~3-18-22~~)

20. Explosives. Explosives used in well construction must never be detonated inside the required well casing. Approved explosive casing perforators may be exempted by the Director. (3-18-22)

21. Hydraulic Fracturing. Hydraulic fracturing must be performed only by well drillers licensed in Idaho. The pressure must be transmitted through a drill string and must not be transmitted to the well casing. The driller must provide a report to the Director of the fracturing work which must include well location, fracturing depth, fracturing pressures and other data as requested by the Director. (3-18-22)

22. Drilling Fluids or Drilling Additives. The well driller must use only potable water and drilling fluids or drilling additives that are manufactured for use in water wells, are NSF International, American Petroleum Institute (API), or ASTM/ANSI approved; and do not contain a concentration of any substance in excess of Primary Drinking Water Standards, as set forth in IDAPA 58.01.08, "Rules for Public Drinking Water Systems," according to manufacturer's specifications. The well driller may seek approval from the Director to use specific, non-certified products on a case-by-case basis. In addition, the well driller must ensure the containment of all drilling fluids and materials used or produced to the immediate drilling site, and will not dispose of such fluids or materials into any streams, canals, boreholes, wells, or other subsurface pathways. (3-18-22)

23. Disinfection and Decontamination. Upon completion of a well, the driller is responsible for adding the appropriate amount of disinfecting chemical compound and distributing it throughout the well to achieve a uniform concentration for "in place" disinfection of the well. Chlorine compounds used in accordance with the table listed below will satisfy this requirement. Other methods may be used if approved by the Director in advance.

Amount of Chlorine Needed Per 100 Feet of Water in Well			
Casing Diameter (in.)	Gallons of water in casing per 100 ft. of water depth	Amount of 5.25% Sodium Hypo-chlorite (Unscented Laundry Bleach)	Amount of 65% Calcium Hypochlorite (Chlorine Granules)
6	147	2 ¼ cups	3 tbsp
8	261	4 cups	5 tbsp

10	408	6 ¼ cups	½ cup
12	588	9 cups	¾ cup
16	1044	1 gal	1 ¼ cup
Note: 1 gal = 4 qt = 8 pt = 16 cups; 1 cup = 16 tbsp			
Chlorine granules or tablets must be dissolved and placed into the well as a solution.			
If another concentration of hypochlorite solution is used, the following equation should be used for calculating amounts. (Volume of water in gallons) X (0.08) / % Hypochlorite (e.g. 50% = 50) = cups of hypochlorite Example: To treat 147 gallons of water using a 50% concentration of hypochlorite solution: (147 gallons water) X (0.08) / 50 = .23 (or approximately 1/4) cup of 50% Hypochlorite solution			

(3-18-22)

24. Sand Production. The maximum sand content produced from a well after initial well development must not exceed fifteen (15) ppm. ~~For the purpose of this rule, sand is considered to be~~ This rule applies to any sediment particle retained on a U.S. standard sieve #200 (seventy-five hundredths (0.075) mm to two (2) mm). (~~3-18-22~~)

a. When necessary to mitigate sand production the well driller must: (3-18-22)

i. Construct each well with properly sized casing, screen(s) or perforated intake(s); and (3-18-22)

ii. Install properly sized filter pack(s); or (3-18-22)

iii. Install pre-packed well screens; or (3-18-22)

iv. Employ other methods approved by the Director. (3-18-22)

b. The Director may grant a waiver exempting a well producing water that exceeds the maximum sand content only if the well driller has met the requirements of Rule 25, Subsection 025.24.a. (3-18-22)

c. Sand production in public drinking water system wells. Wells used in connection with a public drinking water system have more stringent requirements. See IDAPA 58.01.08, "Idaho Rules for Public Water Systems." (~~3-18-22~~)

25. Well Development and Testing. For each well the well driller must measure and record the static (non-pumping) water level and the pumping water level, and the production rate. The production rate will be determined by a pump, bailer, air-lift, or other industry approved test of sufficient duration to establish production from the well. For wells with no returns the driller must report no returns and the static water level. ~~This information must be documented on the well driller's report~~ The well driller's report must document this information. (~~3-18-22~~)

026. -- 029. (RESERVED)

030. CONSTRUCTION OF LOW TEMPERATURE GEOTHERMAL RESOURCE WELLS AND BONDING (RULE 30).

01. General. Drillers constructing low temperature geothermal resource wells (bottom hole temperature more than eighty-five (85) degrees Fahrenheit and less than two hundred twelve (212) degrees Fahrenheit) must be qualified under the Well Driller Licensing Rules. All low temperature geothermal resource wells must be constructed in such a manner that the resource will be protected from waste due to lost artesian pressure and temperature. The owner or well driller is required to provide bottom hole temperature data, but the Director may make the final determination of bottom hole temperature, based upon information available to him. (3-18-22)

a. All standards and guidelines for construction and decommissioning ~~(abandonment)~~ of cold water wells apply to low temperature geothermal resource wells except as modified by Rule 30, Subsections 030.03, 030.04, and 030.06. (~~3-18-22~~)

b. ~~A~~When low temperature geothermal resources are known or anticipated, a drilling prospectus must be submitted to and approved by the Director prior to the construction, modification, deepening or decommissioning ~~(abandonment)~~ of any low temperature geothermal resource well. The well owner and the well driller are responsible for the prospectus and subsequent well construction. (~~3-18-22~~)

02. Well Owner Bonding. The owner of any low temperature geothermal resource well must file a surety bond or cash bond as required by Section 42-233, Idaho Code, with the Director in an amount not less than five thousand dollars ($5,000) nor more than twenty thousand dollars ($20,000) payable to the Director prior to constructing, modifying or deepening the well after July 1, 1987. The bond amount will be determined by the Director within the following guidelines. The bond will be kept in force for one (1) year following completion of the well or until released in writing by the Director, whichever occurs first. (3-18-22)

a. ~~Any well less than three hundred (300) feet deep with a bottom hole temperature of less than one hundred twenty (120) degrees Fahrenheit and a shut in pressure of less than ten (10) pounds per square inch gage (psig) at land surface~~ The owner of an artesian low temperature geothermal resource well must maintain a bond of five thousand dollars ($5,000). (~~3-18-22~~)

b. The owner of a~~ny well three hundred (300) feet to one thousand (1,000) feet deep with a bottom hole temperature of less than one hundred fifty (150) degrees Fahrenheit and a shut in pressure of less than fifty (50) psig~~ low temperature geothermal resource well which flows at land surface must maintain a bond of ten thousand dollars ($10,000). (~~3-18-22~~)

c. The owner of a~~ny~~ flowing low temperature geothermal resource well ~~not covered by Rule 30, Subsections 030.02.a. and 030.02.b.~~ with a bottom hole temperature of 140 degrees Fahrenheit or more must maintain a bond of twenty thousand dollars ($20,000). (~~3-18-22~~)

d. The Director may decrease or increase the bonds required if it is shown to his satisfaction that well construction or other conditions merit an increase or decrease. (3-18-22)

e. The bond requirements of Section 42-233, Idaho Code, are applicable to wells authorized by water right permits or licenses having a priority date earlier than July 1, 1987, if the well authorized by the permit or license was not constructed prior to July 1, 1987, or if an existing well constructed within the terms of the permit or license is modified, deepened or enlarged on or after July 1, 1987. (~~3-18-22~~)

03. Casing. Low temperature geothermal resource wells must be properly cased and sealed to protect from cooling by preventing intermingling with cold water aquifers. Casing may consist of several different casing strings (i.e. conductor pipe, surface casing, intermediate casing, production casing) provided drilling depth does not exceed ten times the depth of the last cemented casing. (~~3-18-22~~)

a. Steel casing which meets or exceeds the minimum specifications for permanent steel casing of

Rule 25, Subsection 025.04 must be installed in every well. The Director may require a more rigid standard for collapse and burst strength as depths or pressures may dictate. Every lLow temperature geothermal resource wells whichdrilled in areas where existing wells are known to flows at land surface must have a minimum of forty (40) feet of conductor pipe set and cementedsealed its entire length to provide anchorage for well head control devices. (3-18-22)

b. If artesian pressure is encountered, Ccasing must be installed from twelve (12) inches above land surface and be sealed with approved seal material into the overlying confining strata of the thermal aquifer. The casing schedule may consist of several different casing strings (i.e. conductor pipe, surface casing, intermediate casing, production casing) which may all extend to land surface or may be overlapped and sealed or packed to prevent fluid migration out of the casing at any depth (Figure 13, Appendix A). (3-18-22)

i. Low temperature geothermal resource wells less than one thousand (1,000) feet deep and which encounter a shut in pressure of less than fifty (50) psig at land surface must have two (2) strings of casing set and cemented to land surface. Conductor pipe must be a minimum of forty (40) feet in length or ten percent (10%) of the total depth of the well whichever is greater. Surface casing must extend into the confining stratum overlying the aquifer. (3-18-22)

ii. Low temperature geothermal resource wells one thousand (1,000) feet or more in depth or which will likely encounter a shut in pressure of fifty (50) psig or more at land surface require prior approval of the drilling plan by the Director and must have three strings of casing cemented their total length to land surface. Conductor pipe must be a minimum length of forty (40) feet. Surface casing must be a minimum of two hundred (200) feet in length or ten percent (10%) of the total depth of the well, whichever is greater. Intermediate casing must extend into the confining stratum overlying the aquifer. (3-18-22)

c. Subsection 030.03.b. may be waived if it can be demonstrated to the Director through the lithology, electrical logs, geophysical logs, injectivity tests or other data that formations encountered below the last casing string set, will neither accept nor yield fluids at anticipated pressure to the borehole. (3-18-22)

dc. A nominal borehole size of two (2) inches in diameter larger than the Outside Diameter (O.D.) of the casing or casing coupler (whichever is larger) must be drilled. All casing designations must be by O.D. and wall thickness and must be shown to meet a given specification of the American Petroleum Institute, the American Society for Testing and Materials, the American Water Works Association or the American National Standards Institute. The last string of casing set during drilling operations must, at the Director's option, be flanged and capable of mounting a valve or blow out prevention equipment to control flows at the surface before drilling resumes. (3-18-22)

04. Sealing of Casing. All casing must be sealed its entire length with cCement or a cement grout mixture is required for wells with a bottom hole temperature of greater than 140 degrees Fahrenheitunless waived by the Director. TheAll mixed grout seal material must be placed from the bottom of the casing to land surfaceup either through the casing or tubing or by use of a tremie pipe. The cCement or cement grout must be undisturbed for a minimum of twenty-four (24) hours or as needed to allow adequate curing. (3-18-22)

a. A caliper log may be run for determining the volume of cement seal material to be placed with an additional twenty-five (25%) percent on site ready for mixing. If a caliper log is not run, an additional one hundred (100%) percent of the calculated volume of cement seal material must be on site ready for placement. (3-18-22)

b. When placing mixed grout seal material Iif there is no return of cement or cement grout at the surface after circulating all of the cement mixture on site, the Director will determine whether remedial work should be done to insure ensure no migration of fluids around the well bore. (3-18-22)

c. The use of additives such as bentonite, accelerators, retarders, and lost circulation material must follow manufacturer's specifications. (3-18-22)

05. Blow Out Prevention Equipment. The Director may require the installation of gate valves or annular blow out prevention equipment to prevent the uncontrolled blow out of drilling mud and geothermal fluid. (3-18-22)

06. Repair of Wells. The well driller must submit a drilling prospectus to the Director for review and approval prior to the repair or modification of a low temperature geothermal resource well. (3-18-22)

07. Decommissioning ~~(Abandoning)~~ of Wells. Proper decommissioning ~~(abandonment)~~ of any low temperature geothermal resource well requires the following: (~~3-18-22~~)

a. All ~~cement plugs~~ mixed grout seal material must be pumped into the hole through drill pipe or tubing. (~~3-18-22~~)

b. All open annuli must be ~~completely~~ filled with ~~cement~~approved seal material. (~~3-18-22~~)

c. ~~A cement plug~~ Approved seal material at least one hundred (100) feet in vertical depth must be placed straddling (fifty (50) feet above and fifty (50) feet below) the zone where the casing or well bore meets the upper boundary of each ground water aquifer. (~~3-18-22~~)

d. A minimum of one hundred (100) feet of ~~cement~~ approved seal material must be placed straddling each drive shoe or guide shoe on all casing including the bottom of the conductor pipe. (~~3-18-22~~)

e. A surface plug of ~~either cement grout or concrete~~ approved seal material must be placed from at least fifty (50) feet below the top of the casing to the top of the casing. (~~3-18-22~~)

f. ~~A cement plug~~ Approved seal material must extend at least fifty (50) feet above and fifty (50) feet below the top of any liner installed in the well. The Director may waive this rule upon a showing of good cause. (~~3-18-22~~)

g. Other decommissioning ~~(abandonment)~~ procedures may be approved by the Director if the owner or operator can demonstrate that the low temperature geothermal resource, ground waters, and other natural resources will be protected. (~~3-18-22~~)

h. Approval for decommissioning ~~(abandonment)~~ of any low temperature geothermal well must be in writing by the Director prior to the beginning of any decommissioning ~~(abandonment)~~ procedures. (~~3-18-22~~)

031. -- 034. (RESERVED)

035. HEALTH STANDARDS (RULE 35).

01. Public Drinking Water System Wells. In addition to meeting these standards, all wells that are constructed for public supply of domestic water must meet all ~~of the~~ requirements set forth by the Idaho Department of Environmental Quality Rules, IDAPA 58.01.08, "Idaho Rules for Public Drinking Water Systems." (~~3-18-22~~)

02. Special Standards for Construction of Wells When Mineralized or Contaminated Water Is Encountered. Any time in the construction of a well that mineralized or contaminated water is encountered, the well driller must take the appropriate steps necessary to prevent the poor quality waters from entering the well or moving up or down the annular space around the well casing. The method employed to case and seal out this water will be determined by the well driller, provided all other minimum standards are met. The well driller will take special precautions in the case of filter-packed wells to prevent water of inferior quality from moving vertically in the filter packed portions of the well. All actions taken will be clearly documented on the well driller's report. (3-18-22)

03. Distances From Contaminant Sources. All water wells constructed for domestic use must comply with minimum distances from septic tanks, drainfields, drainfield replacement area and other siting requirements as set forth in Rule 25, Subsection 025.01.d. (3-18-22)

036. OWNERS RESPONSIBILITIES FOR WELL USE AND MAINTENANCE (RULE 36).
After a well is completed the well owner is responsible for water quality testing, properly maintaining the well, and reporting problems with a well to the Director. All wells must be capped, covered and sealed such that debris cannot enter the well, persons or animals cannot fall into the well, and water cannot enter the well around the outside of the casing. Pursuant to Section 42-1603, Idaho Code, the owner of any artesian well that will flow at land surface is required to apply to the Director for approval of a flow control device. (3-18-22)

01. Use. The well owner must not operate any well in a manner that causes waste or contamination of the ground water resource. Failure to operate, maintain, knowingly allow the construction of any well in a manner that violates these rules, or failure to repair or properly decommission ~~(abandon)~~ any well as herein required will subject the well owner to civil penalties as provided by statute. (~~3-18-22~~)

02. Maintenance. The well owner must: (3-18-22)

a. Not allow modification to wells under their control without first obtaining an approved Idaho Department of Water Resources (IDWR) permit, pursuant to Section 42-235, Idaho Code; (3-18-22)

b. Maintain the minimum casing height of twelve (12) inches above land surface and finished grade; (3-18-22)

c. Maintain the appropriate well cap, and control device if required, according to these Rules; and (3-18-22)

d. Not install or allow the installation of any well pump that would cause a violation of the sand production requirements in accordance with these Rules or allow the well to pump ~~in excess of~~ more than that allowed by a valid water right or domestic exemption. (~~3-18-22~~)

e. Maintain the well to prevent waste or contamination of ground waters through leaky casings, pipes, fittings, valves, pumps, seals or through leakage around the outside of the casings, whether the leakage is above or below the land surface. Any person owning or controlling a non-compliant well must have the well repaired by a licensed well driller under a permit issued by the Director in accordance with these Rules. (3-18-22)

03. New Construction. The well owner must not construct or allow construction of any permanent building, except for buildings to house a well or plumbing apparatus, or both, closer than ten (10) feet from an existing well. (3-18-22)

04. Maintain All Other Separation Distances. The well owner must not construct or install, or allow the construction or installation of any object listed in a location closer than that allowed by the table of Rule 25, Subsection 025.01.d. (3-18-22)

05. Unusable Wells. The well owner must have any unusable well repaired or decommissioned ~~(abandoned)~~ by a licensed well driller under a permit issued by the Director in accordance with these Rules. (~~3-18-22~~)

06. Wells Posing a Threat to Human Health and Safety or Causing Contamination of the Ground Water Resource. The well owner must have any well shown to pose a threat to human health and safety or cause contamination of the ground water resource immediately repaired or decommissioned ~~(abandoned)~~ by a licensed well driller under a permit issued by the Director in accordance with these Rules. (~~3-18-22~~)

037. -- 039. (RESERVED)

040. AREAS OF DRILLING CONCERN (RULE 40).

01. General. (3-18-22)

a. The Director may designate an "area of drilling concern" to protect public health, or to prevent waste and contamination of ground or surface water, or both, because of factors such as aquifer pressure, vertical depth to the aquifer, warm or hot ground water, or contaminated ground or surface waters. (3-18-22)

b. The designation of an area of drilling concern does not supersede or preclude designation of part or all of an area as a Critical Ground Water Area (Section 42-233a, Idaho Code), Ground Water Management Area (Section 42-233b, Idaho Code), or Geothermal Resource Area (Sections 42-4002 and 42-4003, Idaho Code). (3-18-22)

c. The designation of an area of drilling concern can include certain aquifers or portions thereof while excluding others. The area of drilling concern may include low temperature geothermal resources while not including the shallower cold ground water systems. (3-18-22)

02. Bond Requirement. (3-18-22)

a. The minimum bond to be filed by the well driller with the Director for the construction or modification of any well in an area of drilling concern is ten thousand dollars ($10,000) unless it can be shown to the satisfaction of the Director that a smaller bond is sufficient. (3-18-22)

b. The Director may determine on a case-by-case basis if a larger bond is required based on the estimated cost to repair, complete or properly decommission ~~(abandon)~~ a well. (~~3-18-22~~)

03. Additional Requirements. (3-18-22)

a. A driller must demonstrate to the satisfaction of the Director that he has the experience and knowledge to adequately construct or decommission ~~(abandon)~~ a well which encounters warm water or pressurized aquifers. (~~3-18-22~~)

b. A driller must demonstrate to the satisfaction of the Director that he has, or has immediate access to, specialized equipment or resources needed to adequately construct or decommission ~~(abandon)~~ a well. (~~3-18-22~~)

041. -- 044. (RESERVED)

045. DRILLING PERMIT REQUIREMENTS (RULE 45).

01. General Provisions. (3-18-22)

a. Drilling permits are required pursuant to Section 42-235, Idaho Code, prior to construction or modification of any well. (3-18-22)

b. Drilling permits will not be issued for construction of a well which requires another separate approval from the department, such as a water right permit, transfer, amendment or injection well permit, until the other separate permitting requirements have been satisfied. (3-18-22)

c. The Director may allow the use of a start card permit or give verbal approval to a well driller for

the construction of cold water single family domestic wells. Start cards must be received by the Department at least two office hours prior to commencing construction of the well. (3-18-22)

d. The Director may give verbal approval to a well driller for the construction of a well for which other permitting requirements have been met, provided that the driller or owner has filed the drilling permit application and appropriate fee. (3-18-22)

e. ~~The Director will not give a v~~Verbal approval ~~or allow~~and the use of a start card permits for wells constructed in a designated Area of Drilling Concern, Critical Ground Water Area, ~~or~~ Ground Water Management Area and Areas of Contamination are not allowed unless otherwise authorized by the Director. (~~3-18-22~~)

f. A well driller will not construct, drill or modify any well until a drilling permit has been issued, or verbal approval granted. (3-18-22)

02. Effect of a Permit. (3-18-22)

a. A drilling permit authorizes the construction or modification of a well in compliance with these rules and the conditions of approval on the permit. (3-18-22)

b. A drilling permit does not constitute a water right, injection well permit or other authorization which may be required, authorizing use of water from a well or discharge of fluids into a well. (3-18-22)

c. A drilling permit may not be assigned from one owner to another or from one driller to another. (3-18-22)

d. A drilling permit authorizes the construction of one (1) well, except for blanket monitoring well and blanket remediation well drilling permits. (3-18-22)

03. Exclusions. For the purposes of these Rules, artificial openings and excavations that do not constitute a well and are not subject to the drilling permit requirements must be modified, constructed, or decommissioned ~~(abandoned)~~ in accordance with minimum well construction standards. The Director may require decommissioning ~~(abandonment)~~ of artificial openings and excavations constructed pursuant to Rule 45, Subsection 045.03 of these rules, when the use ceases or if the holes may contribute to waste or contamination of the ground water. The following types of artificial openings and excavations are not considered wells: (~~3-18-22~~)

a. Artificial openings and excavations with total depth less than eighteen (18) feet. (3-18-22)

b. Artificial openings and excavations for ~~collecting soil or rock samples, determining geologic properties, or~~ mineral exploration or extraction, including gravel pits. (~~3-18-22~~)

c. Artificial openings and excavations for oil and gas exploration for which a permit has been issued pursuant to Section 47-320, Idaho Code. (3-18-22)

d. Artificial openings and excavations constructed for de-watering building or dam foundation excavations. (3-18-22)

e. Artificial openings and excavations for collecting soil and rock samples and determining geologic properties above and below the water table. Drill rig(s) and support equipment are to remain onsite until the geotechnical boring(s) are decommissioned in accordance with these rules ( )

f. Horizontal borings for utility installations. ( )

~~04. Converting an Artificial Openings or Excavations Not Constructed as a Well for Use as a Well.~~ ~~Artificial openings and excavations that were not constructed as a well pursuant to a drilling permit, if subsequently converted to obtain water, monitor water quantity or quality, or to dispose of water or other fluids, must be reconstructed by a licensed driller in compliance with well construction standards and drilling permit requirements.~~ ~~(3-18-22)~~

05. Fees. ~~(3-18-22)~~

~~a.~~ Drilling permit fees are as prescribed by Section 42-235, Idaho Code. (~~3-18-22~~)

~~b. The difference between the drilling permit fee required by Section 42-235 Idaho Code as applicable, must be paid when an existing well constructed on or after July 1, 1987, for which the lower drilling permit fee was paid, is authorized by the Director for a use which would require the larger drilling permit fee.~~ ~~(3-18-22)~~

046. -- 049. (RESERVED)

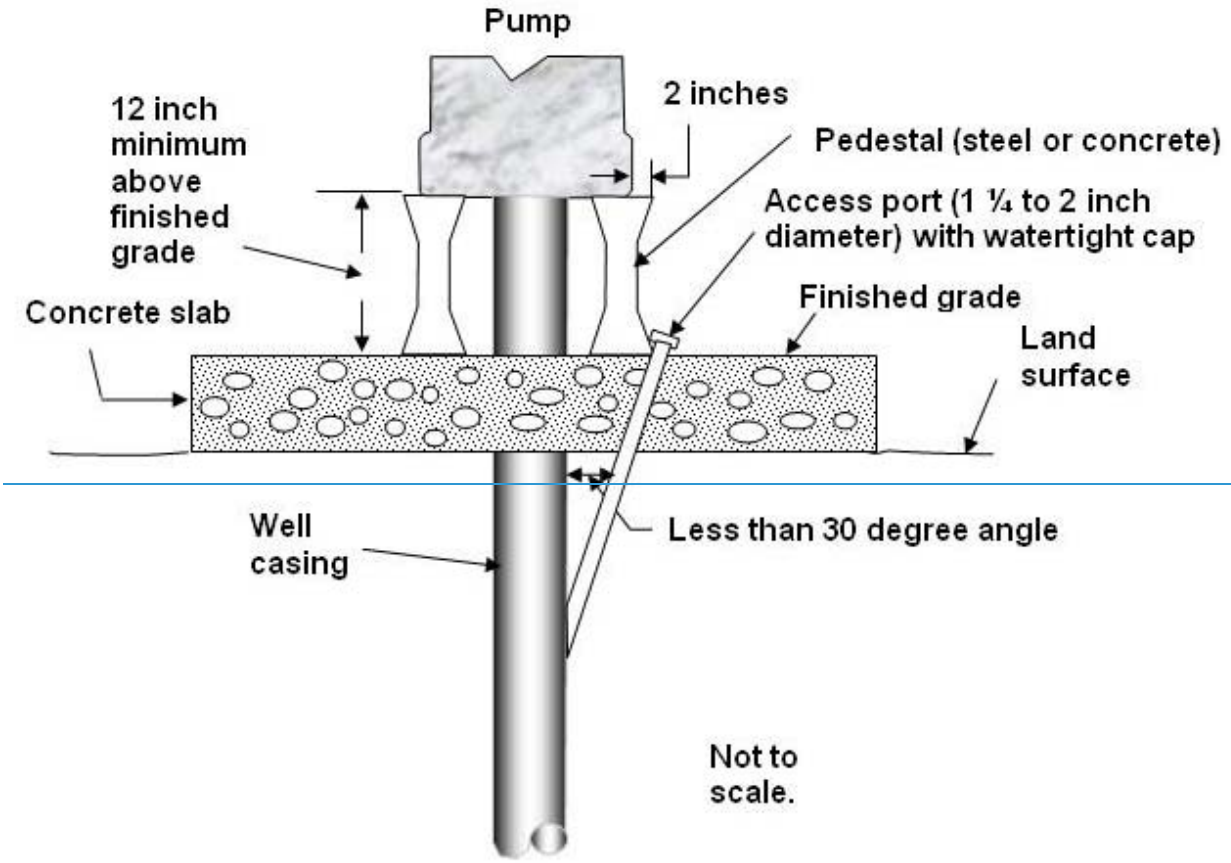
050. PENALTIES (RULE 50).

A person owning or controlling a well that allows waste or contamination of the state's ground water resources or causes a well not to meet the construction standards provided in these Rules is subject to the civil penalties as provided by statute. A driller who violates the foregoing provisions of these well construction standards Rules is subject to enforcement action and the penalties as provided by Statute. (3-18-22)

051. -- 999. (RESERVED)

APPENDIX A

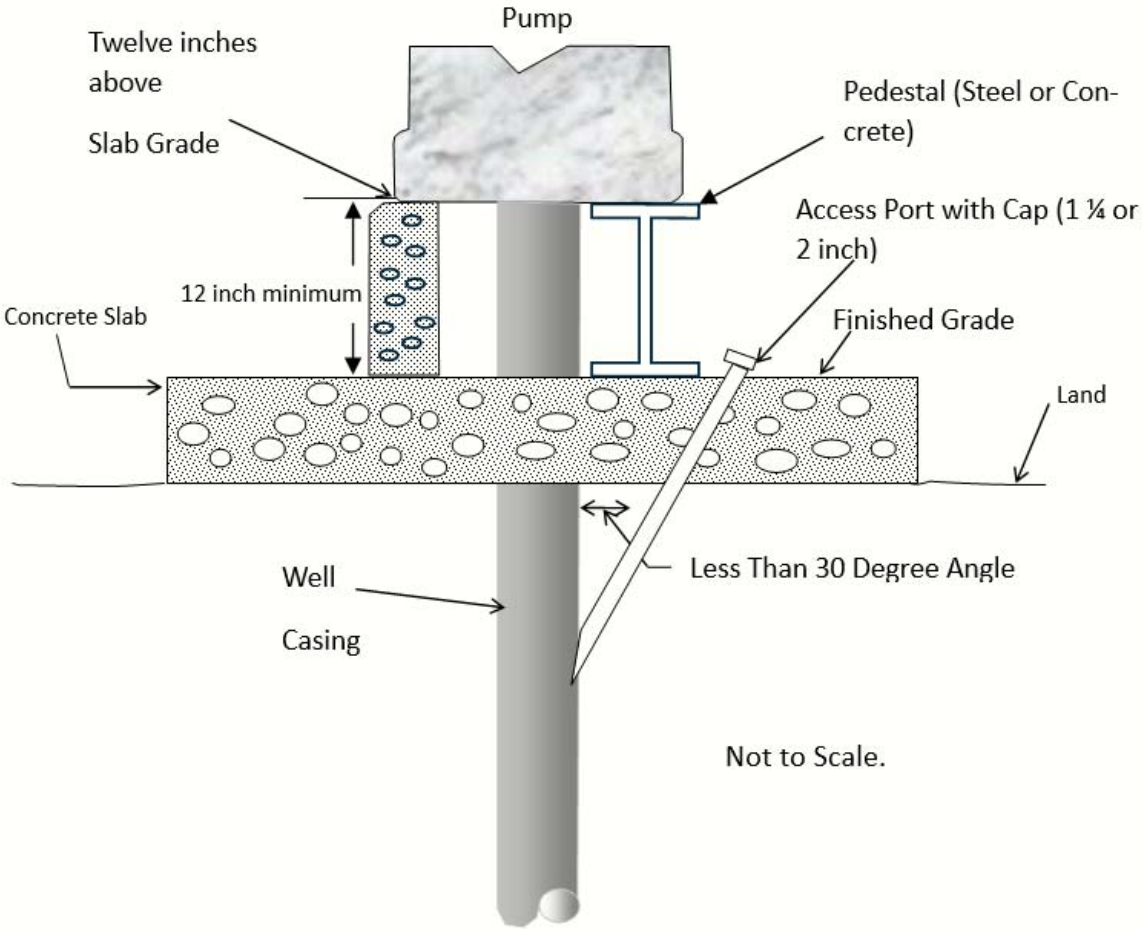
Figure 01. Concrete Slabs and Finished Grade



Note. Pedestal shall not extend more than two (2) inches past pump base in horizontal direction.

APPENDIX A

Figure 01. Concrete Slabs and Finished Grade



Note. Extending the pedestal more than two (2) inches past pump base in the horizontal direction is not allowed.

Figure 02. Annular Space and Overbore

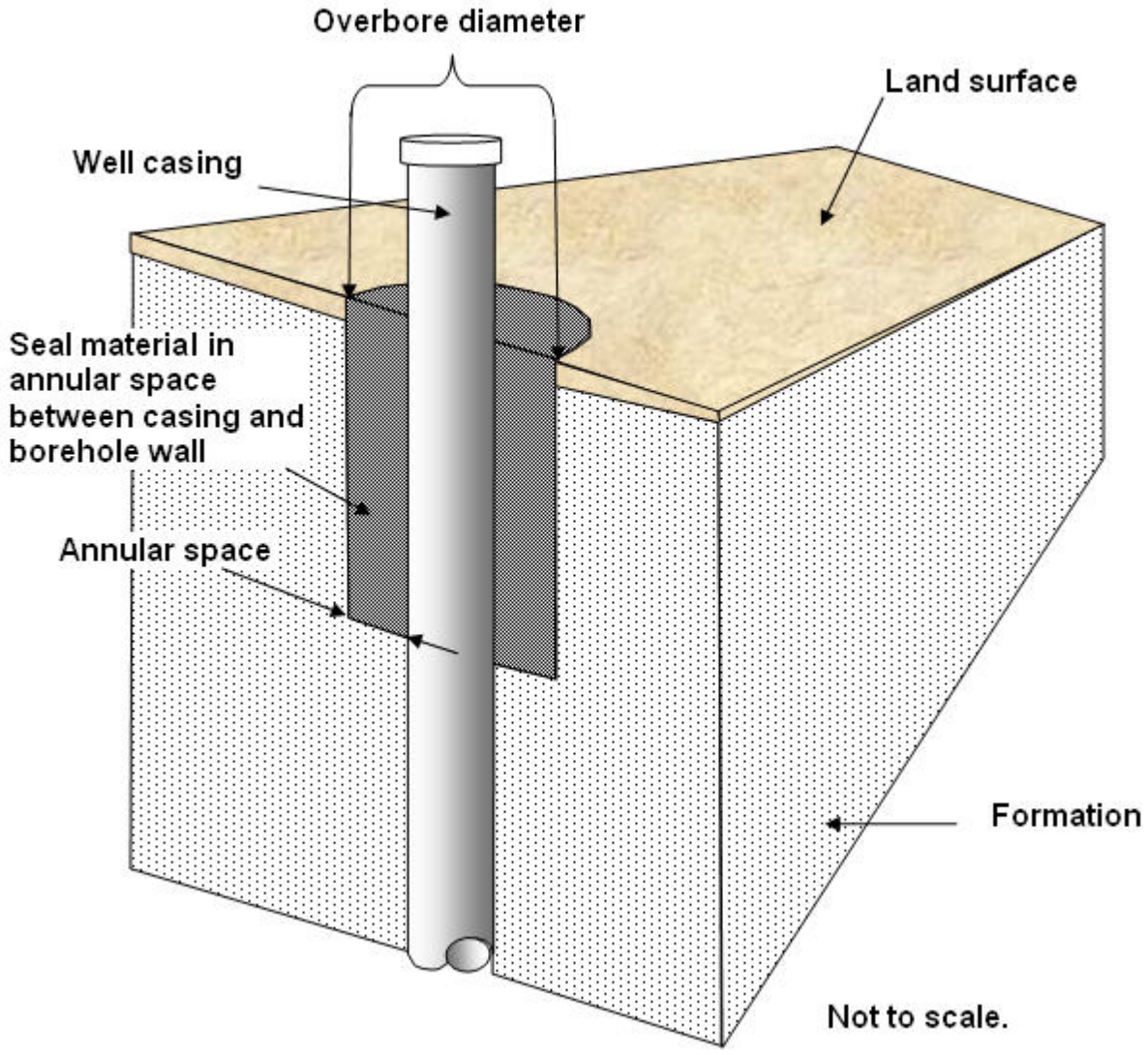


Figure 03. Overbore Requirements When a Tremie Pipe is Left in Place and A Grout Seal Installed

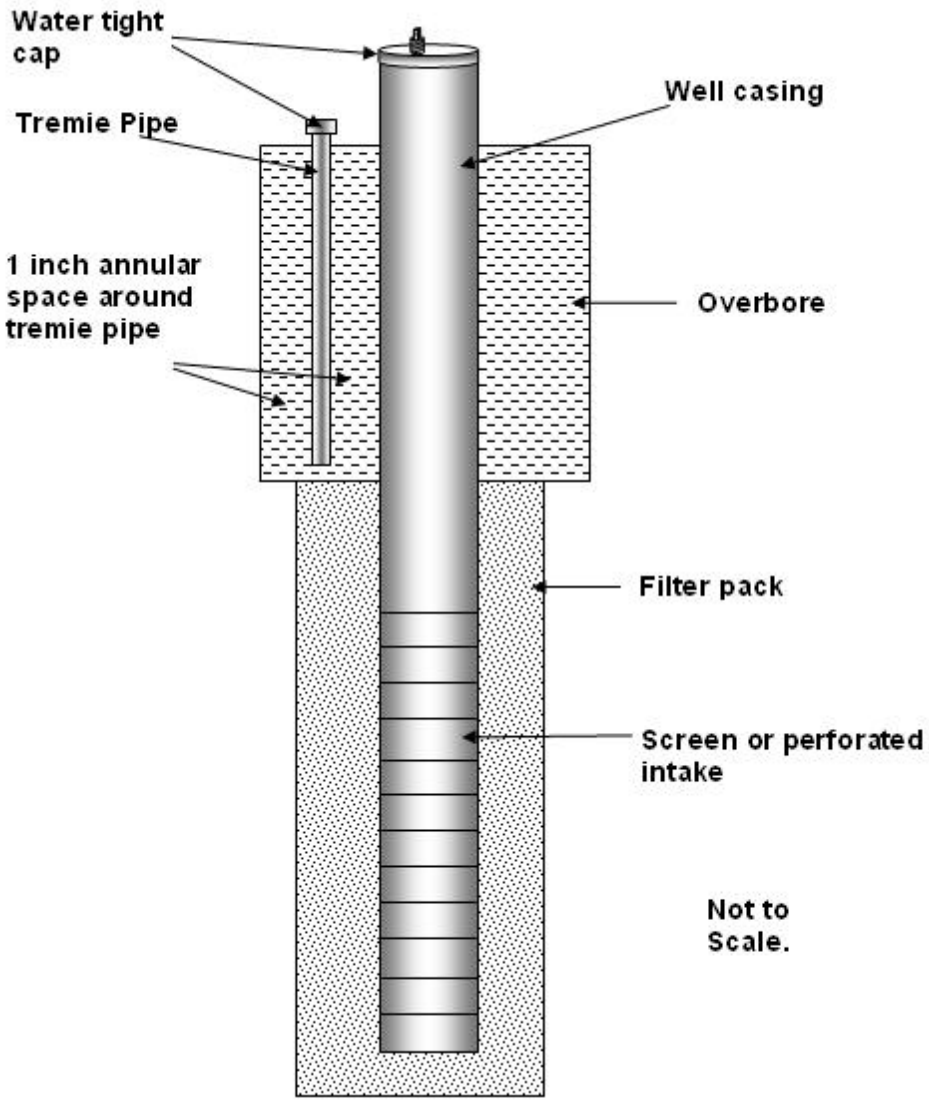


Figure 04. Sealing Requirements in Consolidated Formations

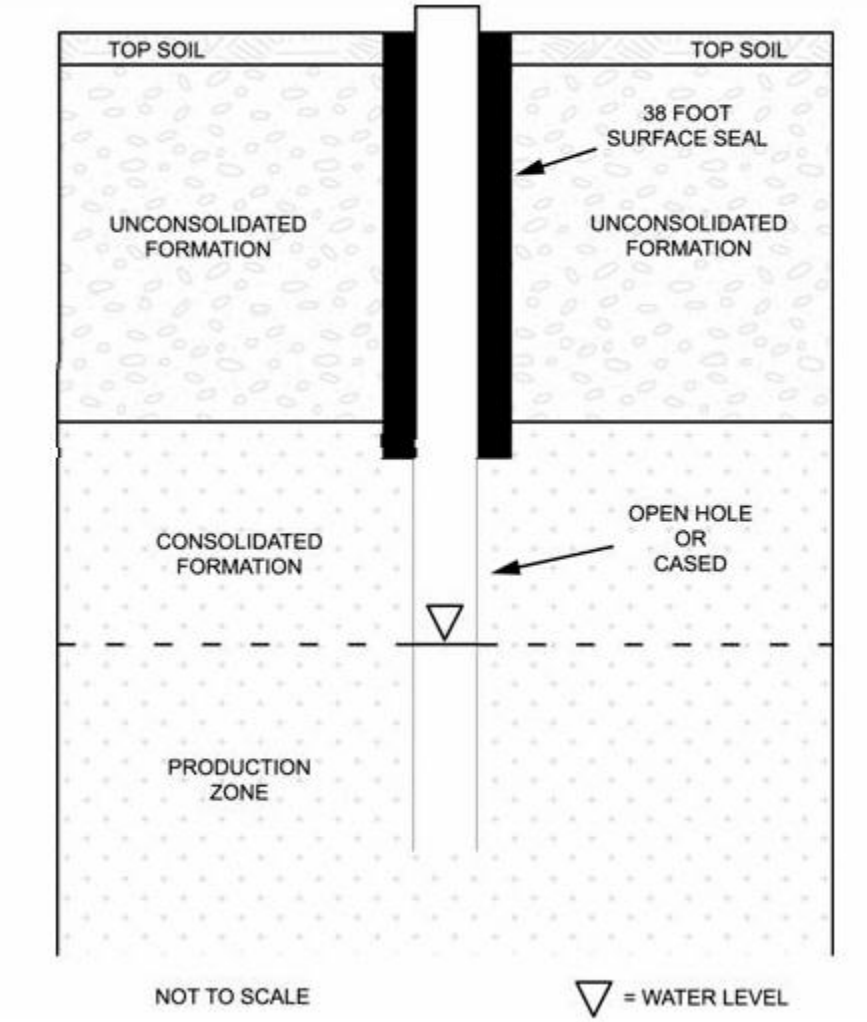


Figure 05. Sealing Requirements in Unconsolidated Formation without Confining Layers

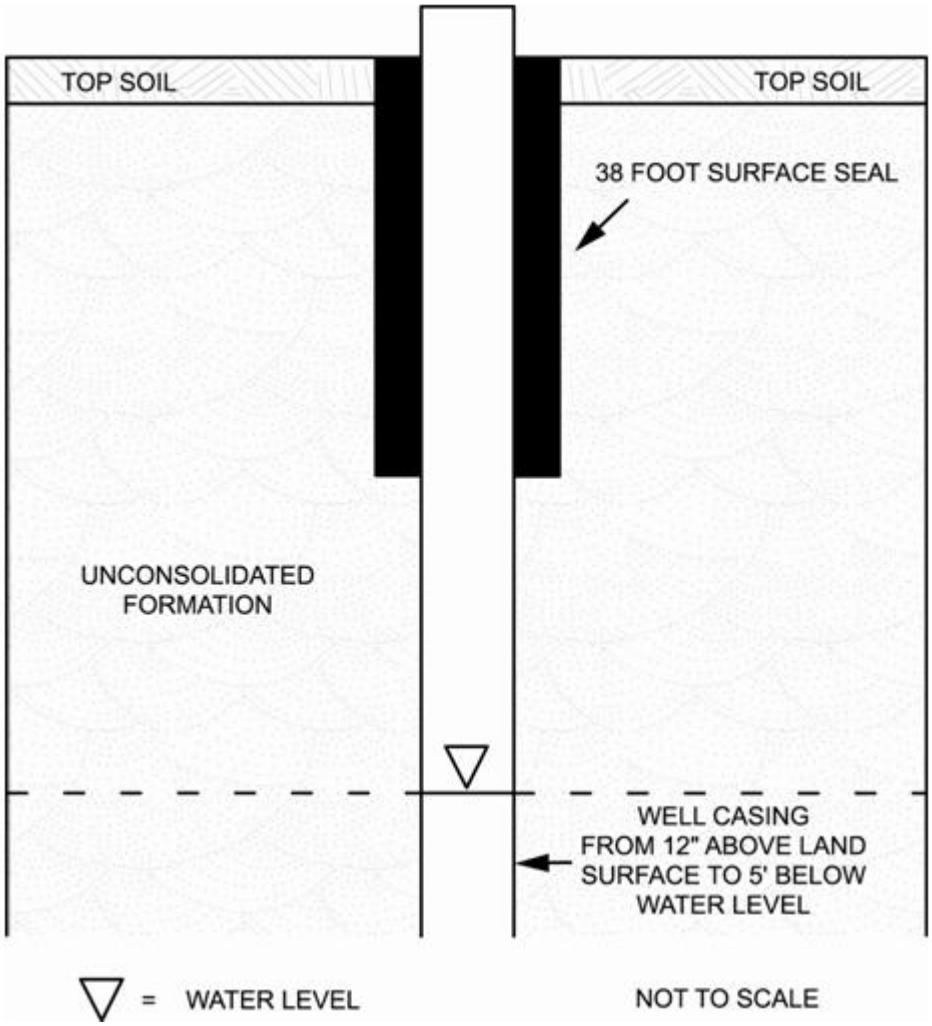


Figure 06. Rathdrum Prairie Boundary

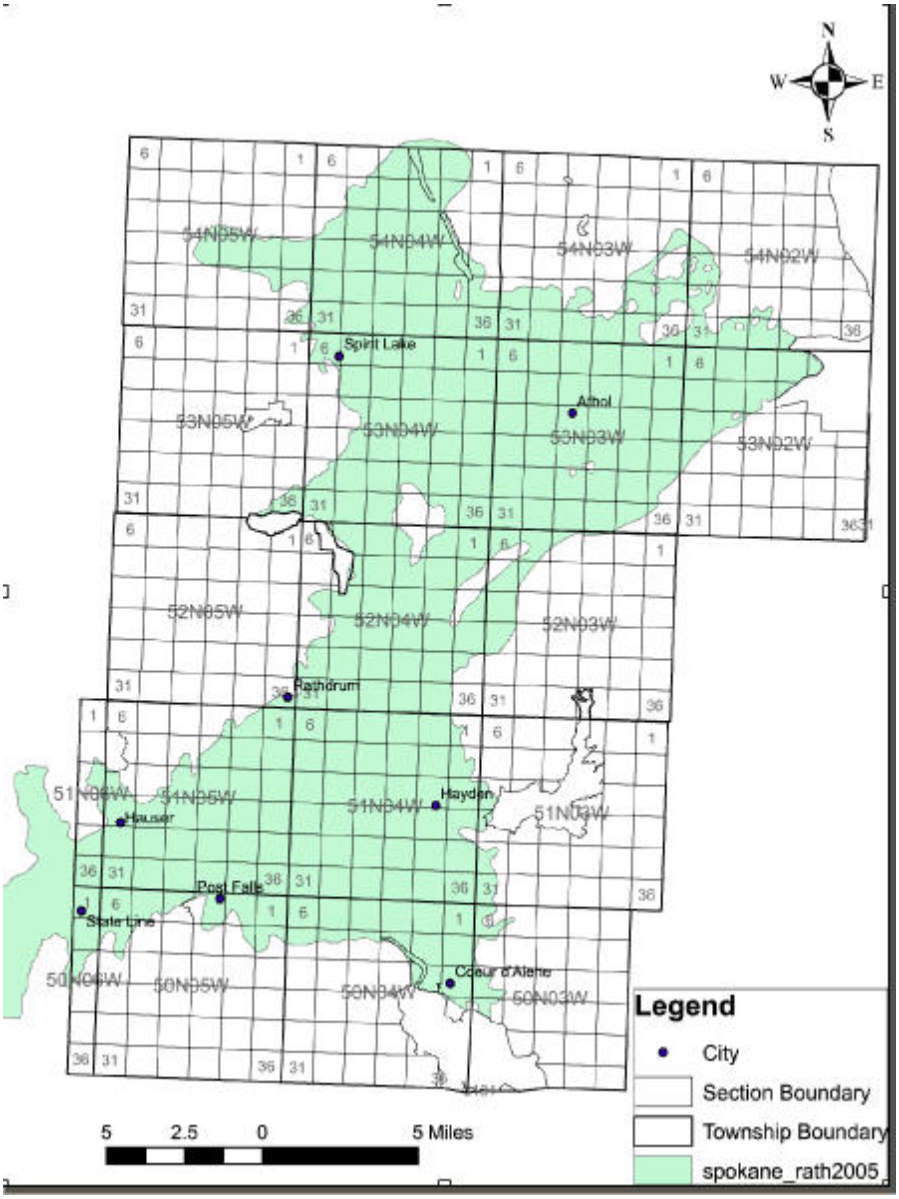


Figure 07. Sealing Requirements in the Rathdrum Prairie

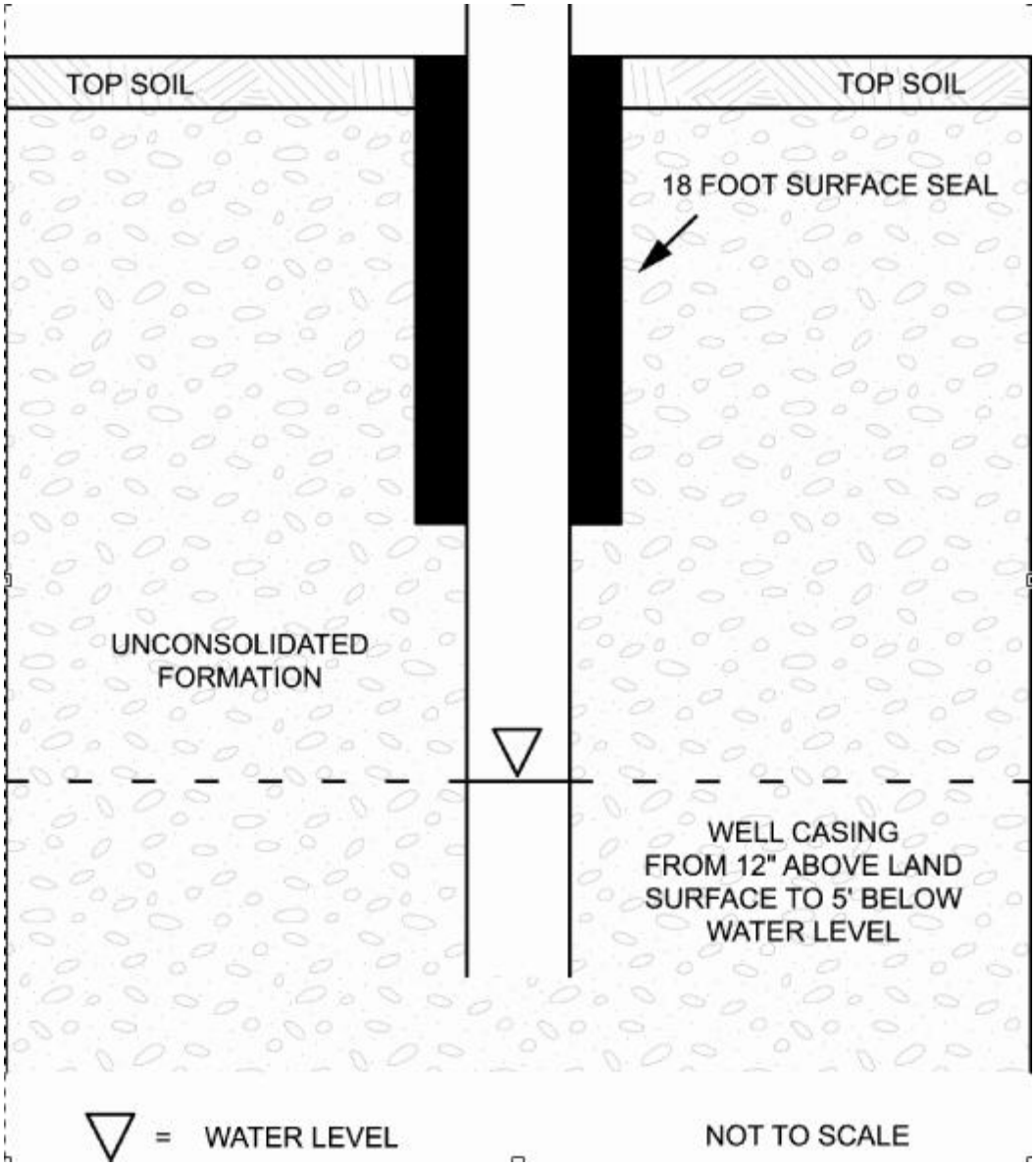


Figure 08. Sealing Requirements in Unconsolidated Formations with Confining Layers

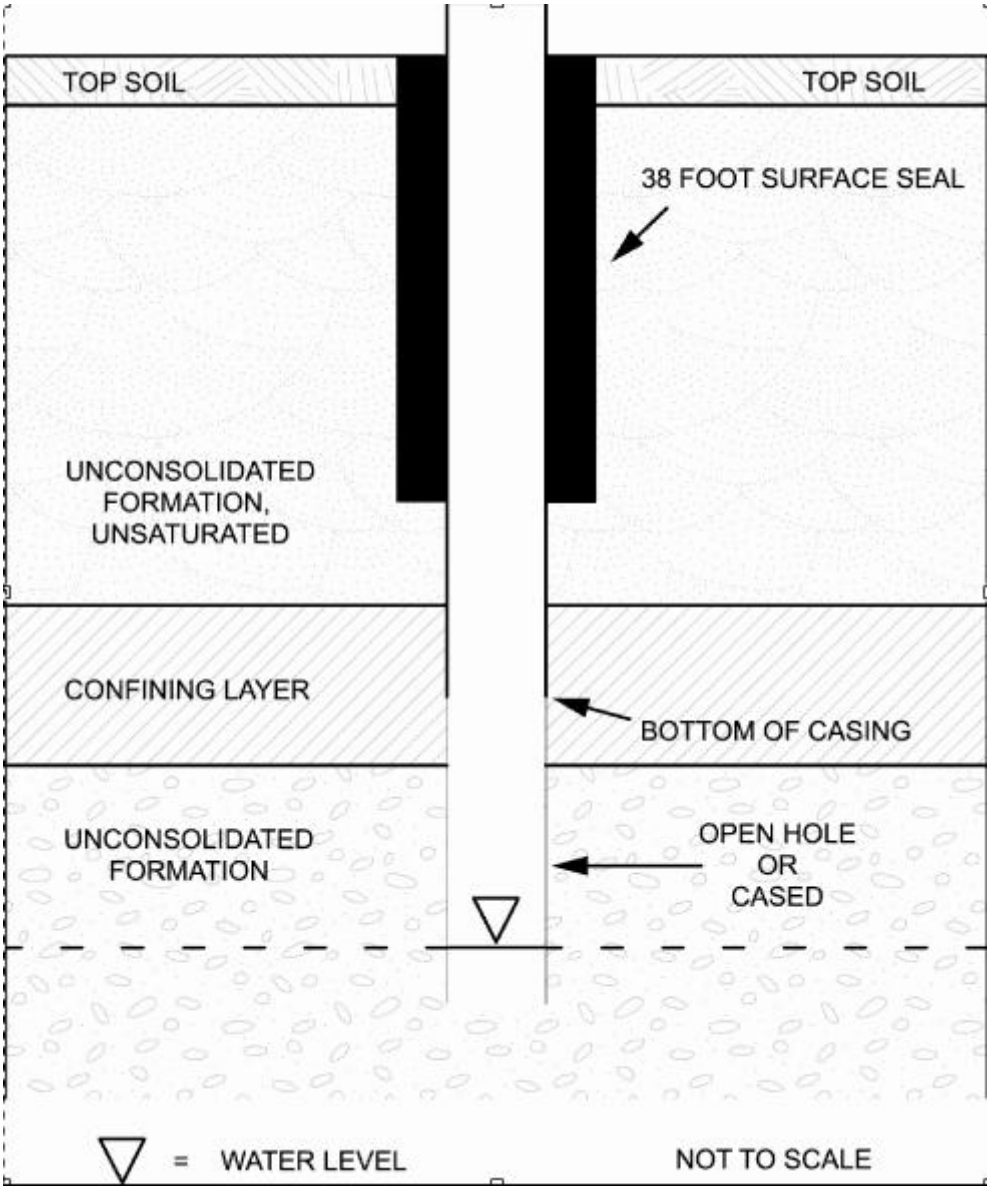


Figure 09. Sealing Requirements for Artesian Wells in Unconsolidated Formations

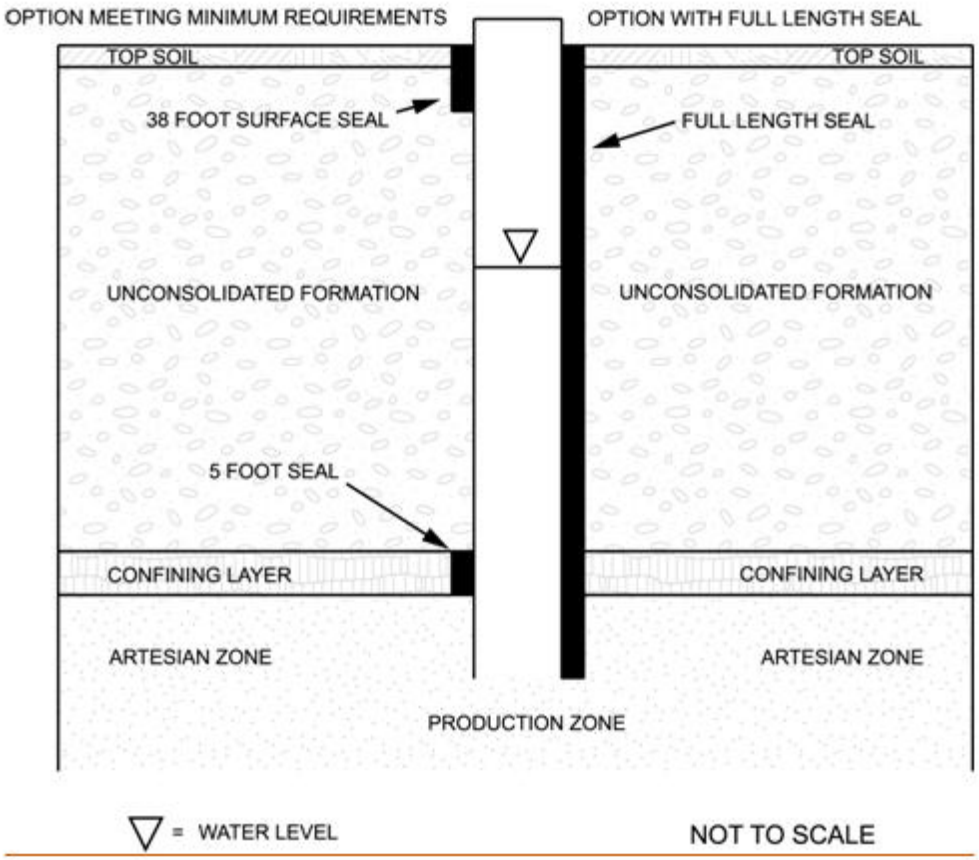


Figure 10. Sealing Requirements for Artesian Wells in Consolidated Formations

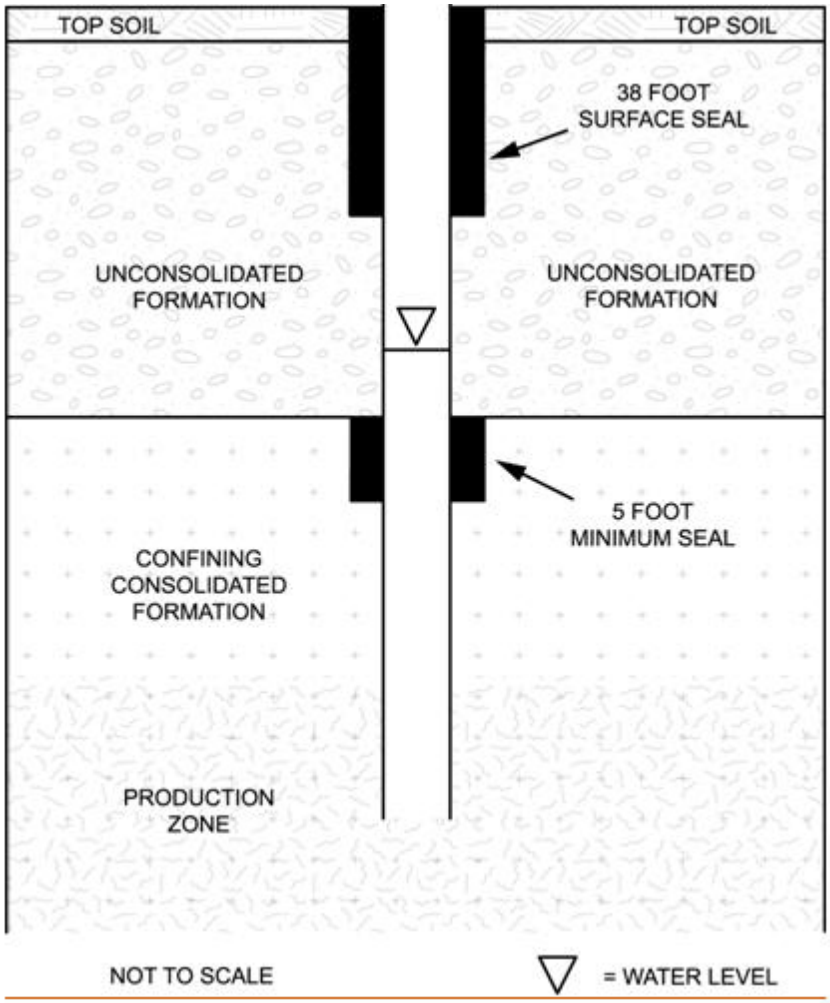
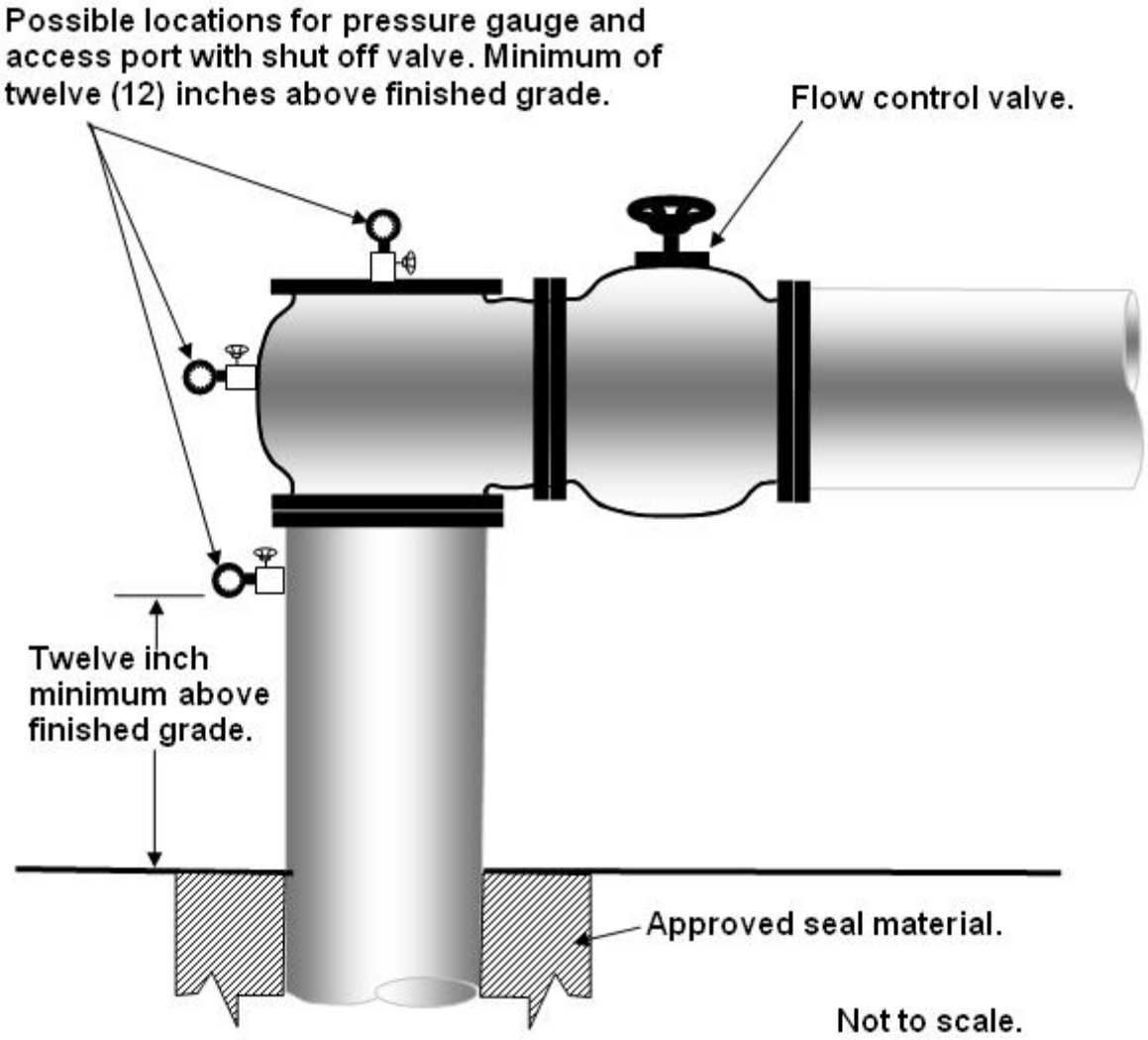


Figure 11. Access Ports, Pressure Gauges, and Control Valves



Note. Application and approval of control device is required on any flowing artesian well per Section 42-1603, Idaho Code.

Figure 12. Well Cap and Access Port

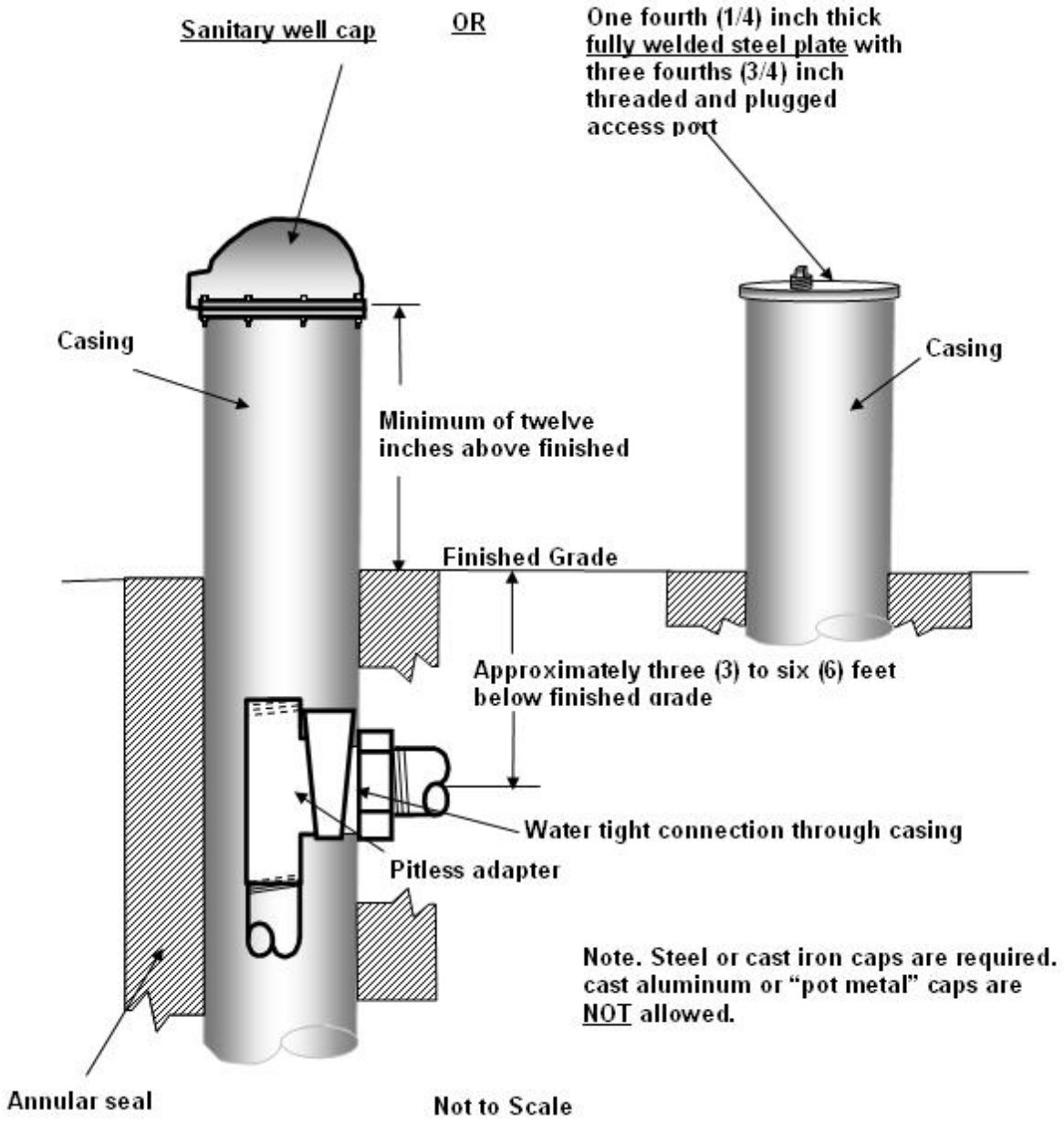
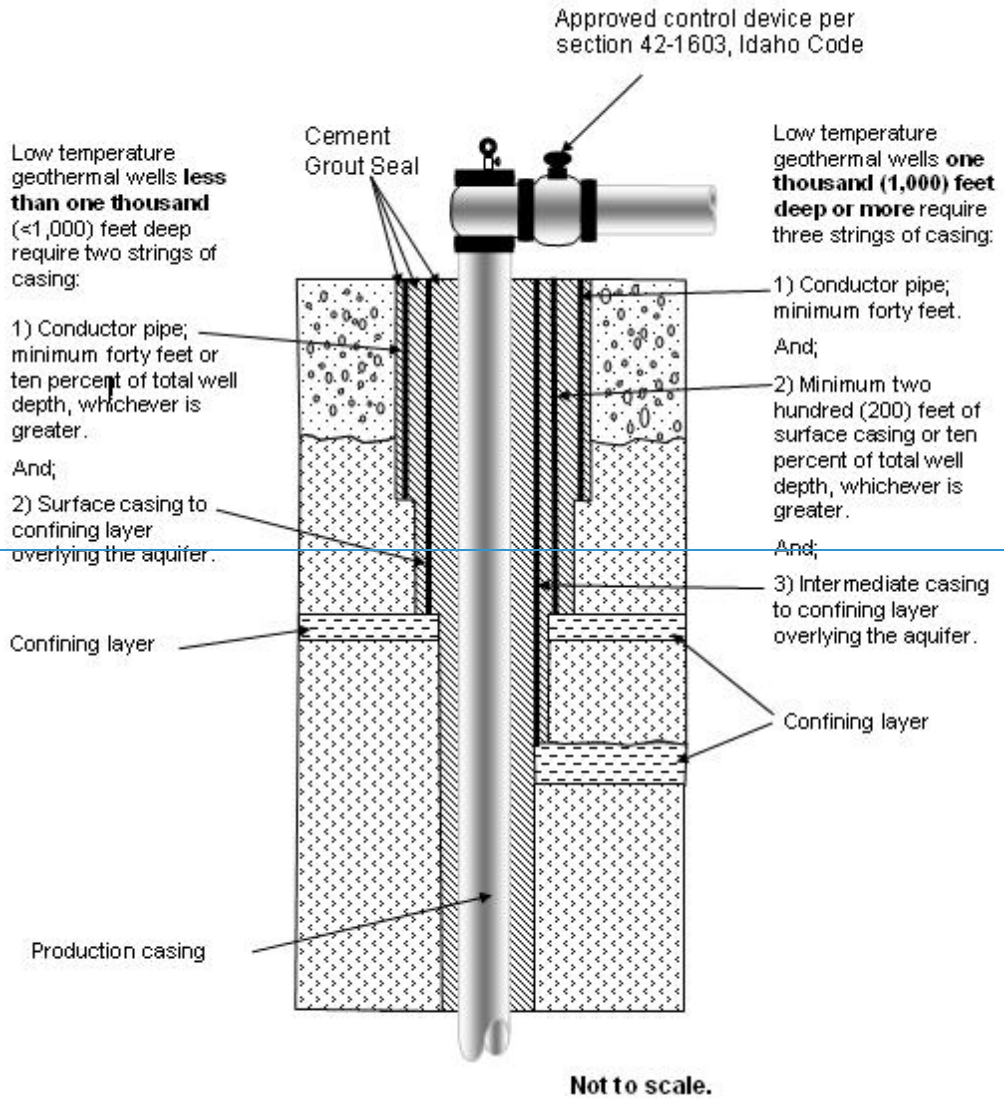
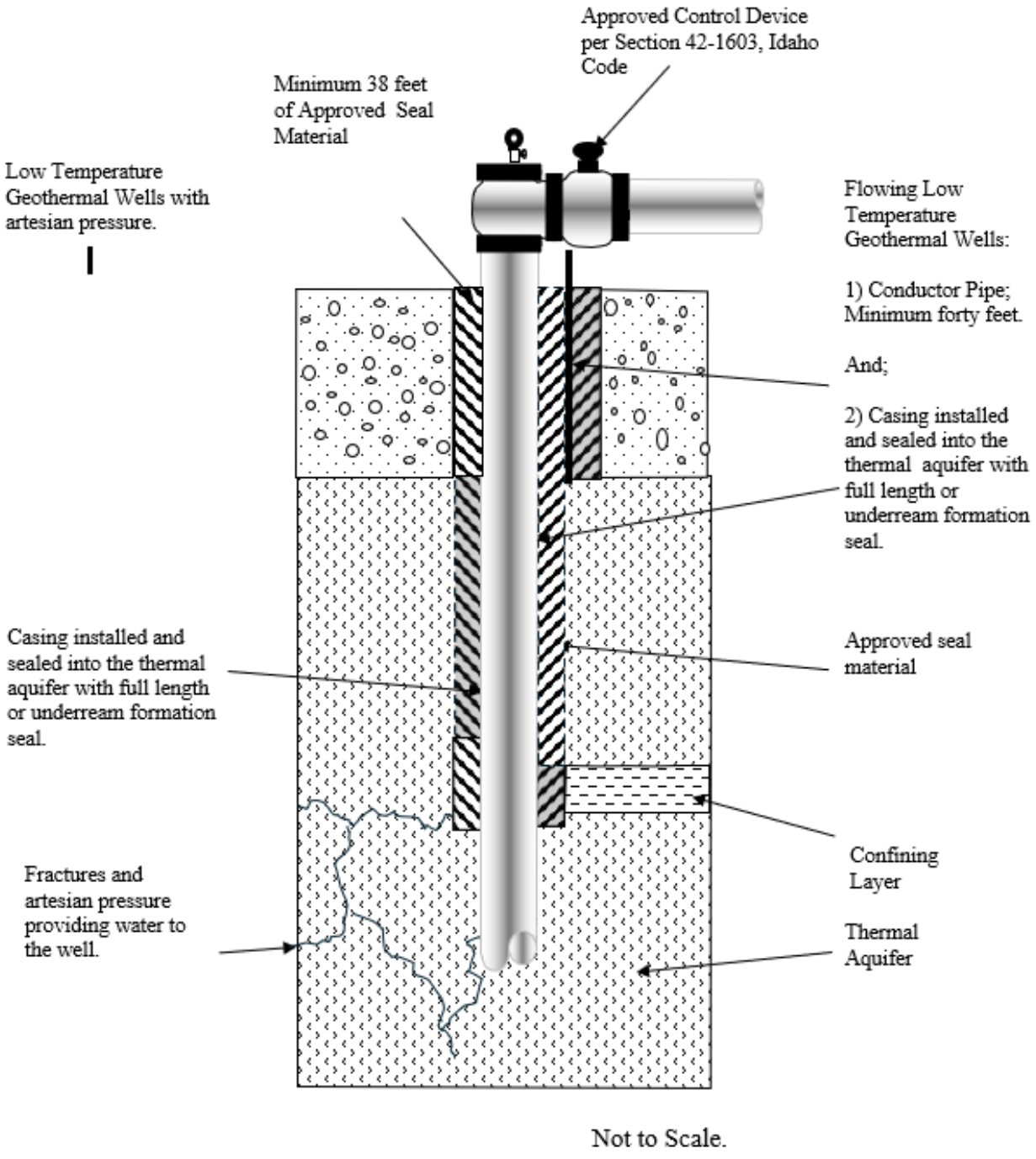


Figure 13. Casing Requirements for Low Temperature Geothermal Wells




Approved Control Device per Section 42-1603, Idaho Code
Minimum 38 feet of Approved Seal Material
Low Temperature Geothermal Wells with artesian pressure.
Flowing Low Temperature Geothermal Wells:
1) Conductor Pipe; Minimum forty feet.
And;
2) Casing installed and sealed into the thermal aquifer with full length or underream formation seal.
Casing installed and sealed into the thermal aquifer with full length or underream formation seal.
Approved seal material
Confining Layer
Fractures and artesian pressure providing water to the well.
Thermal Aquifer
Not to Scale.

IDAPA 37 – IDAHO DEPARTMENT OF WATER RESOURCES

37.03.09 – WELL CONSTRUCTION STANDARDS RULES

DOCKET NO. 37-0309-2401

NOTICE OF RULEMAKING - PROPOSED RULE

AUTHORITY: In compliance with Section 67-5221(1), Idaho Code, notice is hereby given that this agency has initiated proposed rulemaking procedures. The action is authorized pursuant to Section 42-1805(8), Idaho Code.

PUBLIC HEARING SCHEDULE: Public hearing(s) concerning this rulemaking will be scheduled if requested in writing by twenty-five (25) persons, a political subdivision, or an agency, not later than October 23, 2024.

The hearing site(s) will be accessible to persons with disabilities. Requests for accommodation must be made not later than five (5) days prior to the hearing, to the agency address below.

DESCRIPTIVE SUMMARY: The following is a nontechnical explanation of the substance and purpose of the proposed rulemaking:

The Idaho Department of Water Resources (IDWR) initiated this rulemaking in compliance with Executive Order No. 2020-01, Zero-Based Regulation (ZBR) (EO 2020-01), issued by Governor Little on January 16, 2020. Pursuant to EO 2020-01, each rule chapter effective on June 30, 2020, must be reviewed by the promulgating agency over a five-year period. This review is being conducted according to a schedule established by the Division of Financial Management, Office of the Governor (DFM), posted at https://adminrules.idaho.gov/forms_menu.html. This rule chapter was scheduled for review in 2023.

With this Notice, IDWR proposes a new chapter of water appropriation rules. The new chapter is approximately 5.8% shorter than the existing well construction standards rule chapter due to both internal agency analysis and external stakeholder negotiation, commentary, and editing. Changes to the rule come through a combination of (a) removal of obsolete, (b) removal of unnecessary provisions (such as the prescriptive casing and sealing requirements for low temperature geothermal (LTG) resource wells), and (c) modifications to existing rules regulating improving its effectiveness.

The development of the proposed rule text through two publicly-released preliminary rule draft iterations may be viewed at: https://idwr.idaho.gov/legal-actions/rules/idwr-rulemaking-2024-2025/well-construction-rules/. On the same website, IDWR also developed and published rulemaking support documents, which provide IDWR's recommendations on rulemaking, rulemaking analysis, and responses to substantive comments received through the negotiated rulemaking process.

After consideration of public comments received in response to this Proposed Rule, IDWR will present the final rule text to the Idaho Legislature in the late fall of 2024.

FEE SUMMARY: The following is a specific description of the fee or charge imposed or increased:

IDAPA 37.03.09 sets the procedures for drilling and constructing wells to prevent waste and contamination of Idaho's ground water resources. The rule also establishes the collection of fees to file an application for drilling permit set forth in Idaho Code § 42-235.

FISCAL IMPACT: The following is a specific description, if applicable, of any negative fiscal impact on the state general fund greater than ten thousand dollars ($10,000) during the fiscal year resulting from this rulemaking: N/A.

NEGOTIATED RULEMAKING: Pursuant to Section 67-5220(1), Idaho Code, negotiated rulemaking was

conducted. The Notice of Intent to Promulgate Rules - Negotiated Rulemaking was published in the April 3, 2024 Idaho Administrative Bulletin, Vol. 24-4, page54.

INCORPORATION BY REFERENCE: Pursuant to Section 67-5229(2)(a), Idaho Code, the following is a brief synopsis of why the materials cited are being incorporated by reference into this rule: N/A.

ASSISTANCE ON TECHNICAL QUESTIONS, SUBMISSION OF WRITTEN COMMENTS: For assistance on technical questions concerning the proposed rule, contact Erik Boe at Erik.Boe@idwr.idaho.gov, (208) 287-4800.

Anyone may submit written comments regarding this proposed rulemaking by mail to the address below or by email sent to rulesinfo@idwr.idaho.gov. All written comments must be directed to the undersigned and must be delivered on or before October 23, 2024.

DATED this 30th day of August 2024.

Erik Boe, Water Compliance Bureau Chief, Rules Regulation Officer
Idaho Department of Water Resources
322 E. Front Street
PO Box 83720 Boise, ID 83720-0098
Phone: (208) 287-4800

Zero-Based Regulation
Prospective Analysis

- **Fill out entire form to the best of your ability, unless submitting a Notice to Negotiate only fill out 1, 2, 5, and 7. The rest of the form must be completed prior to the adoption of the proposed rule.**

Agency Name: Idaho Department of Water Resources ("IDWR")

Rule Docket Number: Docket No. 37-0303-2301

1. What is the specific Idaho statutory legal authority for this proposed rule?

Statute Section (include direct link)	Is the authority mandatory or discretionary?
Idaho Code §§ 42-3903, 42-3903A, 42-3905, 42-3913, 42-3914 and 42-3915	Mandatory
https://legislature.idaho.gov/statutesrules/idstat/Title42/T42CH39/	

2. Define the specific problem that the proposed rule is attempting to solve? Can the problem be addressed by non-regulatory measures?

IDWR proposes negotiated rule making for reasonable rules that may be necessary for regulation and control of the construction and use of waste disposal and injection wells. The problem the rule solves is the protection of ground water resources against unreasonable contamination or deterioration of quality to preserve such resources for existing and future diversion to beneficial uses. The negotiated rulemaking process will determine whether the Rules and Minimum Standards for the Construction and Use of Injection Wells ("Injection Well Rules") are necessary or require any modification.

The Injection Well Rules offer a set of procedures and minimum standards for the construction and use of waste disposal and injection wells while protecting ground water resources and promoting public health. The Injection Well Rules are necessary to maintain state primacy for regulation of injection wells pursuant to the federal Safe Drinking Water Act. IDWR seeks public comment on whether any non-regulatory measures can be implemented in lieu of the Injection Well Rules. IDWR proposes maintaining the Injection Well Rules with some minor modifications and updates, subject to the negotiated rulemaking process.

3. **How have other jurisdictions approached the problem this proposed rule intends to address?**

a. **Is this proposed rule related to any existing federal law?**

Federal citation	Summary of Law (include direct link)	How is the proposed Idaho rule more stringent? (if applicable)
40 CFR 141, 144, 145, 146	https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-144 Establishes minimum requirements for UIC programs and state primacy enforcement authority.	The proposed Idaho rule is consistent with Federal regulations. The Idaho rule is limited to permitting of Class V injection wells only and is not more stringent than Federal Class V injection well regulations.

b. **How does this proposed rule compare to other state laws?**

State	Summary of Law (include direct link)	How is the proposed Idaho rule more stringent? (if applicable)
Washington	Washington's Underground Injection Control (UIC) program, managed by the Washington State Department of Ecology, regulates Class V injection wells to protect groundwater resources. The rules require owners and operators of Class V wells to register their wells, ensure they are properly sited, constructed, and operated, and to take steps to prevent contamination of underground sources of drinking water. The program also includes monitoring and reporting requirements to ensure compliance with state and federal standards. For more details, visit the Washington State Department of Ecology's UIC Program. https://apps.leg.wa.gov/WAC/default.aspx?cite=173-218	Idaho rules are consistent with all other state rules that have primacy of EPA's Class V Injection Wells.

Oregon	Oregon's UIC program for Class V wells, regulated by the Department of Environmental Quality (DEQ), emphasizes the protection of underground sources of drinking water through stringent oversight of well construction, operation, and maintenance. All Class V well owners are required to register their wells and adhere to operational standards that prevent contamination. Regular monitoring and comprehensive reporting are mandatory to ensure that the environmental safety measures are met consistently across the state. https://oregon.public.law/statutes/ors_468b.195	Idaho rules are consistent with all other state rules that have primacy of EPA's Class V Injection Wells.
Nevada	Nevada's laws for Class V injection wells are designed to protect underground sources of drinking water. The state's Underground Injection Control (UIC) program, managed by the Nevada Division of Environmental Protection (NDEP), regulates these wells under the authority of the Nevada Revised Statutes (NRS) and Nevada Administrative Code (NAC). The program ensures that any non-hazardous fluids injected into these wells do not compromise water quality, particularly in this arid state where water resources are critical. https://www.leg.state.nv.us/NAC/NAC-445A.html#NAC445ASec810	Idaho rules are consistent with all other state rules that have primacy of EPA's Class V Injection Wells.
Utah	Utah's Underground Injection Control (UIC) program, governed by Rule R317-7 of the Utah Administrative Code, regulates the injection of fluids into the ground to protect underground sources of drinking water (USDWs). The rules set standards for permitting, construction, operation, and closure of injection wells, including Class V wells, which are used for a variety of non-hazardous injections. The program ensures that injection practices do not endanger USDWs by enforcing strict monitoring and compliance measures. https://adminrules.utah.gov/public/rule/R317-7/Current%20Rules	Idaho rules are consistent with all other state rules that have primacy of EPA's Class V Injection Wells.

Wyoming	Wyoming's rules for Class V injection wells, managed by the Department of Environmental Quality, mandate comprehensive requirements for the design, construction, and operation of these wells to ensure they do not contaminate underground drinking water sources. The program requires permits, regular inspections, and detailed reporting to monitor the impact of these wells on the environment. Compliance with these regulations is strictly enforced to maintain the integrity of water resources. All Class V facilities are regulated under W.S. 35-11-301 and WQRR Chapter 27. https://wyoleg.gov/StateStatutes/StatutesConstitution?tab=0	Idaho rules are consistent with all other state rules that have primacy of EPA's Class V Injection Wells.
Montana	State does not have primacy, see EPA Link in 3.a. above	NA
Alaska	State does not have primacy, see EPA Link in 3.a. above	NA
South Dakota	State does not have primacy, see EPA Link in 3.a. above	NA

c. **If the Idaho proposed rule has a more stringent requirement than the federal government or the reviewed states, describe the evidence base or unique circumstances that justifies the enhanced requirement:**
Idaho is not more stringent than federal standards

4. **What evidence is there that the rule, as proposed, will solve the problem?**
EPA granted Idaho Primacy of the federal Underground Injection Control (UIC) Program based on our effective rule for Class V wells. This means that Idaho manages its own program for regulating these wells, ensuring compliance with federal standards to protect underground sources of drinking water.

5. **What is the anticipated impact of the proposed rule on various stakeholders? Include how you will involve stakeholders in the negotiated rulemaking process?**

Category	Potential Impact
Fiscal impact to the state General Fund, any dedicated fund, or federal fund	Maintaining the current rules, with proposed minor modifications, will have no impact to the state General Fund, dedicated fund, or federal fund. Application fees for permitting construction or abandonment of injection wells are nominal ($75-$100 per application) and are controlled by statute rather than rule. IDWR generally receives about 95 deep injection well applications or renewals per year, and receives about 355 shallow well inventory forms per year.

Impact to Idaho businesses, with special consideration for small businesses	Maintaining the current rules, with proposed minor modifications, should not impact Idaho businesses, including small businesses. No changes are proposed to permit fees. In Idaho, excess storm water, agricultural water, and facility heating/cooling water are the most common fluids disposed of with injection wells of various design, including standard cased well, drain fields, and infiltration trenches. Construction and decommissioning of deep injection wells must be performed by an Idaho licensed well driller. Most shallow injection wells are constructed and owned by state and local government entities involved in highway and street construction and maintenance.
Impact to any local government in Idaho	Maintaining the current rules, with proposed minor modifications, will have no impact on IDWR or any local government in Idaho. Most shallow injection wells are constructed and owned by state and local government entities involved in highway and street construction and maintenance, and are exempt from shallow well inventory form filing fees. IDWR does not propose changing this exemption.

6. What cumulative regulatory volume does this proposed rule add?

Category	Impact
Net change in word count	Proposed rule reduces word count from 10,511 to 8,990 words. This corresponds to a net change of -1,521 words or -14.5%.
Net change in restrictive word count	Proposed rule reduces total restrictive word count from 125 to 115 words. This corresponds to a net change of -10 words or -8.0%.

7. Should this rule chapter remain as a rule chapter or be moved to statute as suggested in Section 67-5292, Idaho Code?

Category	Impact
What is the cost of publishing this rule chapter annually? (Multiply the number of pages x $56)	This 20 page rule would cost approximately $1,120, annually.
How frequently has this rule chapter been substantively updated over the past 5 years? (Exclude republishing triggered solely by recent sunset dates)	Once
What is the benefit of having all related requirements in a single location in Idaho Code?	Idaho Code § 42-3913 requires the Idaho Water Resource Board to adopt rules establishing minimum standards for the construction or abandonment of deep injection wells to protect groundwater from waste and unreasonable contamination.

37.03.03 – RULES AND MINIMUM STANDARDS FOR THE CONSTRUCTION AND USE OF INJECTION WELLS

000. LEGAL AUTHORITY.

~~This Chapter is adopted under the legal authority of~~ Sections 42-3903A, and 42-3913~~, 42-3914, and~~ through 42-3915, Idaho Code. (~~3-18-22~~)

001. ~~TITLE AND~~ SCOPE.

01. ~~Title~~. ~~These rules are titled IDAPA 37.03.03 "Rules and Minimum Standards for the Construction and Use of Injection Wells." (3-18-22)~~

~~**02. Scope**.~~ These rules ~~and~~ establish minimum standards ~~are~~ and criteria for construction and abandonment of Class V deep and shallow ~~use of~~ injection wells in the state of Idaho, except Indian lands, and the injection of fluids to such wells. ~~Upon promulgation, these rules apply to all injection wells (see Rule Subsection 035.01).~~ The construction and use of Class I, III, IV, or VI injection wells are prohibited by these rules. ~~Class IV wells are also prohibited by federal law. These rules and minimum standards for construction and use of injection wells apply to all injection wells in the state of Idaho, except in Indian lands. All injection wells shall be permitted and constructed in accordance with the "Well Construction Standards Rules" found in IDAPA 37.03.09 which are authorized under Section 42-238, Idaho Code.~~ (~~3-18-22~~)

~~03~~**02. Rule Coverage**. In the event that a portion of these rules is less stringent than the minimum requirements for injection wells as established by Federal regulations (40 CFR Parts 141, 142, 144, 145, and 146), the correlative Federal requirement will be used to regulate the injection well. (~~3-18-22~~)

~~**04. Variance of Methods**. The Director may approve the use of a different testing method or technology if it is no less protective of human health and the environment, will not allow the migration of injected fluids into a USDW, meets the intent of the rule, and yields information or data consistent with the original method or technology required. A request for review by the Director must be submitted in writing by the applicant, permit holder, or operator and be included with all pertinent information necessary for the Director to evaluate the proposed testing method or technology. (3-18-22)~~

~~002. INCORPORATION BY REFERENCE.~~

~~**01. Incorporated Document**. IDAPA 37.03.03 adopts and incorporates by reference those ground water quality standards found in Section 200 of IDAPA 58.01.11, "Ground Water Quality Rule," of the Department of Environmental Quality. (3-18-22)~~

~~**02. Document Availability**. Copies of the incorporated document may be found at the central office of the Idaho Department of Water Resources, 322 East Front Street, Boise, Idaho, 83720-0098 or online through the department or state websites. (3-18-22)~~

~~003~~002. -- 009. (RESERVED)

010. DEFINITIONS.

~~**01. Abandonment**. See "permanent decommission. (3-18-22)~~

~~**02. Abandoned Well**. See "permanent decommission". (3-18-22)~~

~~03~~**01. Agricultural Runoff Waste**. Excess surface water from agricultural fields generated during any agricultural operation, including runoff of irrigation tail water, as well as natural drainage resulting from precipitation, snowmelt, and floodwaters~~, and is identical to the statutory phrase "irrigation waste water" found in Idaho Code 42-3902~~. (~~3-18-22~~)

0402. **Applicant**. Any owner or operator submitting an application for permit to construct, modify or maintain an injection well to the Director of the Department of Water Resources. (3-18-22___)

0503. **Application**. The standard Department forms for applying for a permit, including any additions, revisions or modifications to the forms. (3-18-22___)

0604. **Aquifer**. Any formation that will yield water to a well in sufficient quantities to make production of water from the formation reasonable for a beneficial use, except when the water in such formation results solely from fluids deposited through an injection well. Any geologic formation(s) that yields water to a well in sufficient quantities to make the production of water from the formation feasible for beneficial use. (3-18-22___)

0705. **Beneficial Use**. One (1) or more of the recognized beneficial uses of water including but not limited to, domestic, municipal, irrigation, hydropower generation, industrial, commercial, recreation, aquifer recharge and storage, stockwatering and fish propagation uses, as well as other uses which provide a benefit to the user of the water as determined by the Director. Industrial use as used for purposes of these rules includes, but is not limited to, manufacturing, mining and processing uses of water. (3-18-22___)

0806. **Best Management Practice (BMP)**. A practice or combination of practices that are more effective than other techniques at preventing or reducing contamination of ground water and surface water by injection well operation. (3-18-22___)

07. **Board.** The Idaho Water Resource Board. (___)

0908. **Casing**. A pipe or tubing of appropriate material, of varying diameter and weight, lowered into a borehole during or after drilling in order to support the sides of the hole and thus prevent the walls from caving, to prevent loss of drilling fluid into porous ground, or to prevent water, gas, or other fluid from entering or leaving the hole. The permanent conduit installed in a well to provide physical stabilization, prevent caving or collapse of the borehole, maintain the well opening and serve as a solid inner barrier to allow for the installation of an annular seal. (3-18-22)

10. **Cementing**. The operation whereby a cement slurry is pumped into a drilled hole and/or forced behind the casing. (3-18-22)

1109. **Cesspool**. An injection well that receives sanitary waste without benefit of a treatment system or treatment device such as a septic tank. Cesspools sometimes have open bottom and/or perforated sides. An injection well that receives untreated sanitary waste containing human excreta, and that sometimes has an open bottom and /or perforated sides. (3-18-22___)

1210. **Coliform Bacteria**. All of the aerobic and facultative anaerobic, gram-negative, non-spore forming, rod-shaped bacteria that either ferment lactose broth with gas formation within forty-eight (48) hours at thirty-five degrees Celsius (35C), or produce a dark colony with a metallic sheen within twenty-four (24) hours on an Endo-type medium containing lactose. (3-18-22___)

1311. **Confining Bed**. A body of impermeable or distinctly less permeable material stratigraphically adjacent to one (1) or more aquifers. (3-18-22___)

1412. **Construct**. To create a new injection well or to convert any structure into an injection well. (3-18-22___)

1513. **Contaminant**. Any physical, chemical, biological, or radiological substance or matter.(3-18-22___)

1614. **Contamination**. The introduction into the natural ground water of any physical, chemical, biological, or radioactive material that may: (3-18-22___)

a. Cause a violation of Idaho Ground Water Quality Standards found in IDAPA 58.01.11 "Ground

~~Water Quality Rule" or the federal drinking water quality standards, whichever is more stringent~~ Standards found in IDAPA 58.01.11, "Ground Water Quality Rule," or IDAPA 58.01.08, "Idaho Rules for Public Drinking Water Systems" Section 050, whichever is more stringent; or (~~3-18-22~~)

b. Adversely affect the health of the public; or (~~3-18-22~~)

c. Adversely affect a designated or beneficial use of the State's ground water. Contamination includes the introduction of heated or cooled water into the subsurface that will alter the ground water temperature and render the local ground water less suitable for beneficial use. (~~3-18-22~~)

~~17~~**15.** **Conventional Mine**. An open pit or underground excavation for the production of minerals. (~~3-18-22~~)

~~18~~**16.** **Decommission (Abandon)**. ~~To remove a well from operation such that injection through the well is not possible. See "permanent decommission" and "unauthorized decommission".~~ Any well that has been permanently removed from service and filled or plugged in accordance with these rules so as to meet the intent of these rules. A properly decommissioned well will not: ( )

a. Produce or accept fluids; ( )

b. Serve as a conduit for the movement of contaminants inside or outside the well casing; or ( )

c. Allow the movement of surface or ground water into unsaturated zones, into another aquifer, or between aquifers. (~~3-18-22~~)

~~19~~**17.** **DEQ**. The Idaho Department of Environmental Quality. (~~3-18-22~~)

~~20~~**18.** **Deep Injection Well**. An injection well ~~which~~that is more than eighteen (18) feet in vertical depth below land surface. (~~3-18-22~~)

~~21~~**19.** **Department**. The Idaho Department of Water Resources. (~~3-18-22~~)

~~22~~**20.** **Director**. The Director of the Idaho Department of Water Resources. (~~3-18-22~~)

~~23~~**21.** **Disposal Well**. A well used for the disposal of waste into a subsurface stratum. (~~3-18-22~~)

~~24~~**22.** **Draft Permit**. A prepared document indicating the Director's tentative decision to issue or deny, modify, revoke and reissue, terminate, or reissue a "permit." Permit conditions, compliance schedules, and monitoring requirements are typically included in a "draft permit". A notice of intent to terminate a permit, and a notice of intent to deny a permit are types of "draft permits." A denial of a request for modification, revocation and reissuance, or termination is not a "draft permit." (~~3-18-22~~)

~~25~~**23.** **Drilling Fluid**. ~~Any number of liquid or gaseous fluids and mixtures of fluids and solids (such as solid suspensions, mixtures and emulsions of liquids, gases, and solids) used in operations to drill boreholes into the earth~~ A heavy suspension used in drilling an "injection well," introduced down the drill pipe and through the drill bit. (~~3-18-22~~)

~~**26. Drywell**. An injection well completed above the water table so that its bottom and sides are typically dry except when receiving fluids. (3-18-22)~~

~~27~~**24.** **Endangerment**. ~~Injection of any fluid which exceeds Idaho ground water quality standards, or federal drinking water quality standards, whichever is more stringent, that may result in the presence of any contaminant in ground water which supplies or can reasonably be expected to supply any public or non-public water system, and if the presence of such contaminant may result in such a system not complying with any ground water quality standard or may otherwise adversely affect the health of persons or result in a violation of ground water quality standards that would adversely affect beneficial uses.~~ An act that threatens contamination of a USDW aquifer which supplies or can reasonably be expected to supply drinking water to any domestic or public water system where the contamination may result in not complying with Ground Water Quality Standards or otherwise adversely affect human health. (~~3-18-22~~)

~~28~~25. **Exempted Aquifer**. An "aquifer" or its portion that meets the criteria in the definition of USDW but which has been recategorized as "other" according to the procedures in IDAPA 58.01.11 "Ground Water Quality Rule". (~~3-18-22~~)

~~29. **Existing Injection Well**. An "injection well" other than a "new injection well." (3-18-22)~~

~~30~~26. **Experimental Technology**. A technology which has not been proven feasible under the conditions in which it is being tested. (~~3-18-22~~)

~~31. **Facility or Activity**. Any UIC "injection well," or another facility or activity that is subject to regulation under the UIC program. (3-18-22)~~

~~32. **Fault**. A surface or zone of rock fracture along which there has been displacement. (3-18-22)~~

~~33. **Flow Rate**. The volume per time unit given to the flow of gases or other fluid substance which emerges from an orifice, pump, turbine or passes along a conduit or channel. (3-18-22)~~

~~34~~27. **Fluid**. Any material or substance that flows or moves, whether in a semisolid, liquid, sludge, gaseous or any other form or state. (~~3-18-22~~)

~~35. **Formation**. A body of consolidated or unconsolidated rock characterized by a degree of lithologic homogeneity which is prevailingly, but not necessarily, tabular and is mappable on the earth's surface or traceable in the subsurface. (3-18-22)~~

~~36. **Generator**. Any person, by site location, whose act or process produces hazardous waste identified or listed in 40 CFR part 261. (3-18-22)~~

~~37~~28. **Ground Water**. ~~Any water that occurs beneath the surface of the earth in a saturated formation of rock or soil~~ Water below the land surface in a zone of saturation. (~~3-18-22~~)

~~38~~29. **Ground Water Quality Standards**. Standards found in IDAPA 58.01.11, "Ground Water Quality Rule," Section 200 or IDAPA 58.01.08, "Idaho Rules for Public Drinking Water Systems" Sectio 050, whichever is more stringent. (~~3-18-22~~)

~~39~~30. **Hazardous Waste**. Any substance defined by IDAPA 58.01.05, "Rules and Standards for Hazardous Waste." (~~3-18-22~~)

~~40~~31. **Indian Lands**. "Indian Country" as defined in 18 U.S.C. 1151. That section defines Indian Country as: (~~3-18-22~~)

a. All land within the limits of any Indian reservation under the jurisdiction of the United States government, notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation; (~~3-18-22~~)

b. All dependent Indian communities within the borders of the United States whether within the original or subsequently acquired territory thereof, and whether within or without the limits of a State; and (~~3-18-22~~)

c. All Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same. (~~3-18-22~~)

~~41~~32. **Individual Subsurface Sewage Disposal System**. For the purpose of these rules, any standard or alternative disposal system ~~which~~that injects sanitary waste from single family ~~residential~~domestic septic systems, or ~~non-residential~~non-domestic septic systems which are used solely for the disposal of sanitary waste and have the capacity to serve fewer than twenty (20) people a day. (~~3-18-22~~)

33. Industrial Wastewater. All wastewater, treated or untreated, that is not defined as municipal wastewater. ( )

~~42~~34. **Improved Sinkhole**. A naturally occurring ~~karst depression or other natural~~ crevice found in ~~volcanic terrain and other~~ geologic settings ~~which~~that have been modified by man for the purpose of directing and emplacing fluids into the subsurface. (~~3-18-22~~)

~~43~~35. **Injection**. The subsurface emplacement of fluids through an injection well. (~~3-18-22~~)

~~44~~36. **Injection Well**. Any feature that is operated to allow injection ~~which~~that also meets at least one (1) of the following criteria: (~~3-18-22~~)

a. A bored, or driven shaft whose depth is greater than the largest surface dimension; (~~3-18-22~~)

b. A dug hole whose depth is greater than the largest surface dimension; (~~3-18-22~~)

c. An improved sinkhole; or (~~3-18-22~~)

d. A subsurface fluid distribution system. (~~3-18-22~~)

~~45. **Injection Zone**. A geological "formation", or those sections of a formation receiving fluids through an "injection well." (3-18-22)~~

~~46. **IWRB**. Idaho Water Resource Board. (3-18-22)~~

~~47~~37. **Large Capacity Cesspools**. Any cesspool used by a multiple dwelling, community, or regional system for the disposal of sanitary wastes (for example: a duplex or an apartment building) or any cesspool used by or intended to be used by twenty (20) or more people per day (for example: a rest stop, campground, restaurant or church). (~~3-18-22~~)

~~48. **Large Capacity Septic System**. Class V wells that are used to inject sanitary waste through a septic tank and do not meet the criteria of an individual subsurface sewage disposal system. (3-18-22)~~

~~49. **Maintain**. To allow, either expressly or by implication, an injection well to exist in such condition as to accept or be able to accept fluids. Unless a well has been permanently decommissioned pursuant to the criteria contained in these rules it is considered to be capable of accepting fluids. (3-18-22)~~

~~50~~38. **Modify**. To alter the construction of an injection well, but does not include cleaning or redrilling operations which neither deepen nor increase the dimensions of the well. (~~3-18-22~~)

~~51~~39. **Motor Vehicle Waste Disposal Wells**. Injection wells that receive or have received fluids from vehicle repair or maintenance activities, such as an auto body repair shop, automotive repair shop, new and used car dealership, specialty repair shop (transmission and muffler repair shop), or any facility that does any vehicular repair work. (~~3-18-22~~)

40. Municipal Wastewater. Wastewater containing sewage and associated solids, whether treated or untreated. Municipal wastewater, also known as domestic wastewater, may contain industrial wastewater. ( )

~~52. **New Injection Well**. An "injection well" which began to be used for injection after a UIC program for the State applicable to the well is approved or prescribed. (3-18-22)~~

~~53~~41. **Open-Loop Heat Pump Return Wells**. Injection wells that receive surface water or ground water that has been passed through a heat exchange system for cooling or heating purposes. (~~3-18-22~~)

~~54. **Operate**. To allow fluids to enter an injection well by action or inaction of the operator. (3-18-22)~~

~~55. **Operator**. Any individual, group of individuals, partnership, company, corporation, municipality, county, state agency, taxing district, federal agency or other entity that operates or proposes to operate any injection well. (3-18-22)~~

~~56~~42. **Owner or Operator**. ~~Any individual, group of individuals, partnership, company, corporation, municipality, county, state agency, taxing district, federal agency or other entity owning land on which any injection well exists or is proposed to be constructed~~ The owner or operator of any facility or activity subject to regulation under these Rules. (~~3-18-22~~)

~~57. **Packer**. A device lowered into a well to produce a fluid-tight seal. (3-18-22)~~

~~58. **Perched Aquifer**. Ground water separated from an underlying main body of ground water by an unsaturated zone. (3-18-22)~~

~~59. **Permanent Decommission**. The discontinuance of use of an injection well in a method approved by the Director such that the injection well no longer has the capacity to inject fluids and the upward or downward migration of fluid is prevented. This also includes the disposal and proper management of any soil, gravel, sludge, liquids, or other materials removed from or adjacent to the injection well in accordance with all applicable Federal, State, and local regulations and requirements. (3-18-22)~~

~~60~~43. **Permit**. An authorization, license, or equivalent control document issued by the Department. (~~3-18-22~~)

~~61. **Person**. Any individual, association, partnership, firm, joint stock company, trust, political subdivision, public or private corporation, state or federal governmental department, agency or instrumentality, or any other legal entity which is recognized by law. (3-18-22)~~

~~62~~44. **Point of Beneficial Use**. The top or surface of a USDW, directly below an injection well, where water is available for a beneficial use. (~~3-18-22~~)

~~63~~45. **Point of Diversion for Beneficial Use**. ~~A location such as~~Location of a producing well or spring where ground water is taken under control and diverted for a beneficial use. (~~3-18-22~~)

~~64~~46. **Point of Injection**. The last accessible sampling point prior to waste being released into the subsurface environment through an injection well. For example, the point of injection for a Class V septic system might be the distribution box. For a drywell, it is likely to be the well bore itself. (~~3-18-22~~)

~~65. **Pressure**. The total load or force per unit area acting on a surface. (3-18-22)~~

~~66~~47. **Radioactive Material**. Any material, solid, liquid or gas ~~which~~that emits radiation spontaneously. Radioactive geologic materials occurring in their natural state are not included. (~~3-18-22~~)

~~67~~48. **Radioactive Waste**. Any fluid ~~which~~that contains radioactive material in concentrations ~~which~~that exceed those ~~established for discharges to water in an unrestricted area by 10 CFR 20.1302.(b)(2)(i) and Table 2 in Appendix B of 10 CFR 20~~ listed in 10 CFR part 20, appendix B, table II, column 2. (~~3-18-22~~)

~~68. **RCRA**. The Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act of 1976. (3-18-22)~~

~~69. **Remediation Project**. Use of an injection well for the removal, treatment or isolation of a contaminant from ground water through actions or the removal or treatment of a contaminant in ground water as approved by the Director. (3-18-22)~~

~~70. **Residential (Domestic) Activities**. Human activities that generate liquid or solid waste in any public, private, industrial, commercial, municipal, or other facility. (3-18-22)~~

~~71. **Sanitary Waste**. Any fluid generated through residential (domestic) activities, such as food preparation, cleaning and personal hygiene. This term does not include industrial, municipal, commercial, or other non-residential process fluids. (3-18-22)~~

~~72. **Schedule of Compliance**. A schedule of remedial measures including an enforceable sequence of actions or operations leading to compliance with the standards. (3-18-22)~~

49. Recycled Water. Water treated by a wastewater treatment system and used according to these rules and IDAPA 58.01.17, "Recycled Water Rules." ( )

~~73~~**50.** **Septic System**. An injection well that is used to inject sanitary waste below the surface. A septic system is typically comprised of a septic tank and subsurface fluid distribution system or disposal system. (~~3-18-22~~)

~~74~~**51.** **Shallow Injection Well**. An injection well ~~which~~that is less than or equal to eighteen (18) feet in vertical depth below land surface. (~~3-18-22~~)

~~75. **Site**. The land or water area where any "facility or activity" is physically located or conducted, including adjacent land used in connection with the facility or activity. (3-18-22)~~

~~76. **State**. The state of Idaho. (3-18-22)~~

~~77. **Stratum (plural strata)**. A single sedimentary bed or layer, regardless of thickness, that consists of generally the same kind of rock material. (3-18-22)~~

~~78~~**52.** **Subsidence**. The lowering of the natural land surface in response to: Earth movements; lowering of fluid pressure; removal of underlying supporting material by mining or solution of solids, either artificially or from natural causes; compaction due to wetting ~~(Hydrocompaction)~~; oxidation of organic matter in soils; or added load on the land surface. (~~3-18-22~~)

~~79~~**53.** **Subsurface Fluid Distribution System**. An assemblage of perforated pipes, drain tiles, or other similar mechanisms intended to distribute fluids below the surface of the ground. (~~3-18-22~~)

~~80~~**54.** **UIC**. The Underground Injection Control program under Part C of the Safe Drinking Water Act, including an "approved State program." (~~3-18-22~~)

~~81. **Unauthorized Decommission**. The decommissioning of any injection well that has not received the approval of the Department prior to decommissioning, or was not decommissioned in a method approved by the Director. These wells may have to be properly decommissioned when discovered by the Director to ensure that the well prevents commingling of aquifers or is no longer capable of injection. (3-18-22)~~

~~82. **Underground Injection**. See "injection. (3-18-22)~~

~~83~~**55.** **Underground Source of Drinking Water (USDW)**. An aquifer or its portion that: (~~3-18-22~~)

a. ~~Which:~~ Either supplies any public water system, contains a sufficient quantity of ground water to supply a public water system, or currently supplies drinking water for human consumption; and (~~3-18-22~~)

~~i. Supplies any public water system; or (3-18-22)~~

~~ii. Contains a sufficient quantity of ground water to supply a public water system; or (3-18-22)~~

~~(1) Currently supplies drinking water for human consumption; or (3-18-22)~~

b.~~(2)~~ Contains fewer than ten thousand (10,000) mg/l total dissolved solids~~;~~ and is not an exempted

aquifer. (3-18-22___)

~~b. Which is not an exempted aquifer. (3-18-22)~~

~~84~~56. **Unreasonable Contamination**. Endangerment of a USDW or the health of persons or other beneficial uses by injection. See "endangerment." (~~3-18-22~~___)

57. **Wastewater**. Combination of liquid or water and pollutants from activities and processes occurring in dwellings, commercial buildings, industrial plants, institutions, and other establishments, together with any ground water, surface water, and storm water that may be present; liquid or water that is chemically, biologically, physically or rationally identifiable as containing blackwater, gray water, or commercial or industrial pollutants; and sewage. (___)

~~85. Water Quality Standards. Refers to those standards found in Idaho Department of Environmental Quality Rules, IDAPA 58.01.02, "Water Quality Standards" and IDAPA 58.01.11, "Ground Water Quality Rule." (3-18-22)~~

~~86. Well. For the purposes of these rules, "well" means "injection well." (3-18-22)~~

~~011. -- 014. (RESERVED)~~

~~015. VIOLATIONS, FORMAL NOTIFICATION AND ENFORCEMENT.~~

~~01. Violations. It shall be a violation of these rules for any owner or operator to: (3-18-22)~~

~~a. Fail to comply with a permit or authorization, or terms or conditions thereof; (3-18-22)~~

~~b. Fail to comply with applicable standards for water quality; (3-18-22)~~

~~c. Fail to comply with any permit application notification or filing requirement; (3-18-22)~~

~~d. Knowingly make any false statement, representation or certification in any application, report, document or record filed pursuant to these rules, or terms and conditions of an issued permit; (3-18-22)~~

~~e. Falsify, tamper with or knowingly render inaccurate any monitoring device or method required to be maintained or utilized by the terms and conditions of an issued permit; (3-18-22)~~

~~f. Fail to respond to any formal notification of a violation when a response is required; or (3-18-22)~~

~~g. Decommission a well in an unauthorized manner. (3-18-22)~~

~~02. Additional. It shall be a violation of these rules for any person to construct, operate, maintain, convert, plug, decommission or conduct any other activity in a manner which results or may result in the unauthorized injection of a hazardous waste or of a radioactive waste by an injection well. (3-18-22)~~

~~03. Formal Notification. Formal notification of violations may be communicated to the owner or operator with a letter, a notice of violation, a compliance or enforcement order or other appropriate means. (3-18-22)~~

~~04. Enforcement. Violation of any of the provisions of the Injection Well Act (Chapter 39, Title 42, Idaho Code) or of any rule, regulation, standard or criteria pertaining to the Injection Well Act may result in the Director initiating an enforcement action as provided under Chapters 17 and 39, Title 42, Idaho Code. (3-18-22)~~

~~016. -- 019. (RESERVED)~~

~~020. HEARING BEFORE THE WATER RESOURCE BOARD.~~

~~**01. General**. All hearings before the IWRB will be conducted in accordance with Chapter 52, Title 67, Idaho Code, at a place convenient to the owner and/or operator. For purposes of such hearings, the IWRB or its designated hearing officer shall have power to administer oaths, examine witnesses, and issue in the name of the said Board subpoenas requiring testimony of witnesses and the production of evidence relevant to any matter in the hearing. Judicial review of the final determination by the IWRB may be secured by the owner by filing a petition for review as prescribed by Chapter 52, Title 67, Idaho Code, in the District Court of the county where the injection well is situated or proposed to be located. The petition for review shall be served upon the Chairman of the IWRB and upon the Attorney General. (3-18-22)~~

~~**02. Hearings on Conditional Permits, Disapproved Applications, or Petitions for Exemption**. Any owner or operator aggrieved by the approval or disapproval of an application, or by conditions imposed upon a permit, or any person aggrieved by the Director's decision on a petition for exemption under Section 025 of these rules, shall be afforded an opportunity for a hearing before the IWRB or its designated hearing officer. Written notice of such grievance shall be transmitted to the Director within thirty (30) days after receipt of notice of such approval, disapproval or conditional approval. Such hearing shall be held for the purpose of determining whether the permit shall be issued, whether the conditions imposed in a permit are reasonable, whether a change in circumstances warrants a change in conditions imposed in a valid permit, or whether the Director's decision on a petition for exemption should not be changed. (3-18-22)~~

~~**03. Hearings on Permit Cancellations**. When the Director has reason to believe the operation of an injection well for which a permit has been issued is interfering with the right of the public to withdraw water for beneficial uses, or is causing unreasonable contamination of a drinking or other ground water source as provided for in Title 42, Chapter 39, Idaho Code, the permit may be canceled by the Director. Prior to the cancellation of such permit there shall be a hearing before the IWRB for the purpose of determining whether or not the permit should be canceled. At such hearing, the Director shall be the complaining party. At least thirty (30) days prior to the hearing, a notice, which shall be in accordance with Chapter 52, Title 67, Idaho Code, shall be sent by certified mail to the owner or operator whose permit is proposed to be canceled. The Board shall affirm, modify, or reject the Director's decision and make its decision in the form of an order to the Director. (3-18-22)~~

~~021~~011. -- ~~034~~019. (RESERVED)

~~035~~020. CLASSIFICATION OF INJECTION WELLS.

01. Classification of Injection Wells. For the purposes of these rules, injection wells are classified as follows: (~~3-18-22~~)

a. Class I: (~~3-18-22~~)

i. Wells used by generators of hazardous waste or owners or operators of hazardous waste management facilities to inject hazardous waste beneath the lowermost formation containing, within one-quarter (1/4) mile of the well bore, an underground source of drinking water. (~~3-18-22~~)

ii. Other industrial and municipal disposal wells which inject fluids beneath the lowermost formation containing, within one-quarter (1/4) mile of the well bore, an underground source of drinking water. (~~3-18-22~~)

iii. Radioactive waste disposal wells which inject fluids below the lowermost formation containing an underground source of drinking water within one-quarter (1/4) mile of the well bore. (~~3-18-22~~)

b. Class II. Wells used to inject fluids: (~~3-18-22~~)

i. Which are brought to the surface in connection with natural gas storage operations, or conventional oil or natural gas production and may be commingled with waste waters from gas plants, dehydration stations, or compressor stations which are an integral part of production operations, unless those waters are classified as a hazardous waste at the time of injection. (~~3-18-22~~)

ii. For enhanced recovery of oil or natural gas; and (~~3-18-22~~)

iii. For storage of hydrocarbons which are liquid at standard temperature and pressure. (3-18-22___)

c. Class III. Wells used to inject fluids for extraction of minerals including: (3-18-22___)

i. Mining of sulfur by the Frasch process; (3-18-22___)

ii. In situ production of uranium or other metals; this category includes only in-situ production from ore bodies which have not been conventionally mined. Solution mining of conventional mines such as stopes leaching is included in Class V. (3-18-22___)

iii. Solution mining of salts or potash. (3-18-22___)

d. Class IV: (3-18-22___)

i. Wells used by generators of hazardous waste or of radioactive waste, by owners or operators of hazardous waste management facilities, or by owners or operators of radioactive waste disposal sites to dispose of hazardous waste or radioactive waste into or above a formation which within one-quarter (1/4) mile of the well contains an underground source of drinking water. (3-18-22___)

~~ii. Wells used by generators of hazardous waste or of radioactive waste, by owners or operators of hazardous waste management facilities, or by owners or operators of radioactive waste disposal sites to dispose of hazardous waste or radioactive waste above a formation which within one-quarter (1/4) mile of the well contains an underground source of drinking water. (3-18-22)~~

~~iii~~ii. Wells used by generators of hazardous waste or owners or operators of hazardous waste management facilities to dispose of hazardous waste, which cannot be classified under Subparagraphs ~~035.01.a.i.~~020.01.a.i or ~~035.01.d.i.~~ 020.01.d.i. ~~or 035.01.d.ii.~~ of this rule (e.g., wells used to dispose of hazardous waste into or above a formation which contains an aquifer which has been exempted pursuant to Section 025 of these rules). (3-18-22___)

e. Class V -- All injection wells not included in Classes I, II, III, IV, or VI. (3-18-22___)

f. Class VI. (3-18-22___)

i. Wells that are not experimental in nature that are used for geologic sequestration of carbon dioxide beneath the lowermost formation containing a USDW; or (3-18-22___)

ii. Wells used for geologic sequestration of carbon dioxide that have been granted a waiver of the injection depth requirements pursuant to requirements at 40 CFR Section146.95; or (3-18-22___)

iii. Wells used for geologic sequestration of carbon dioxide that have received an expansion to the areal extent of an existing Class II enhanced oil recovery or enhanced gas recovery aquifer exemption pursuant to Section 025 of these rules. (3-18-22___)

02. Subclassification. Class V wells are subclassified as follows: (3-18-22___)

a. 5A5-Electric Power Generation. (3-18-22___)

b. 5A6-Geothermal Heat. (3-18-22___)

c. 5A7-Heat Pump Return. (3-18-22___)

d. 5A8-Aquaculture Return Flow. (3-18-22___)

e. 5A19-Cooling Water Return. (3-18-22___)

f. 5B22-Saline Water Intrusion Barrier. (~~3-18-22~~)

g. 5D2-Storm Runoff. (~~3-18-22~~)

h. 5D3-Improved Sinkholes. (~~3-18-22~~)

i. 5D4-Industrial Storm Runoff. (~~3-18-22~~)

j. 5F1-Agricultural Runoff Waste[1]. (~~3-18-22~~)

k. 5G30-Special Drainage Water. (~~3-18-22~~)

l. 5N24[1]-Radioactive Waste Disposal[1]. (~~3-18-22~~)

m. 5R21-Aquifer Recharge. (~~3-18-22~~)

n. 5S23-Subsidence Control. (~~3-18-22~~)

o. 5W9-Untreated Sewage[1]. (~~3-18-22~~)

p. 5W10-Large Capacity Cesspools[2]. (~~3-18-22~~)

q. 5W11-Septic Systems (General). (~~3-18-22~~)

r. 5W12-Waste Water Treatment Plant Effluent. (~~3-18-22~~)

s. 5W20-Industrial Process Water. (~~3-18-22~~)

t. 5W31-Septic Systems (Well Disposal). (~~3-18-22~~)

u. 5W32-Septic System (Drainfield). (~~3-18-22~~)

v. 5X13-Mine Tailings Backfill. (~~3-18-22~~)

w. 5X14-Solution Mining. (~~3-18-22~~)

x. 5X15-In-Situ Fossil Fuel Recovery. (~~3-18-22~~)

y. 5X16-Spent Brine Return Flow. (~~3-18-22~~)

z. 5X25-Experimental Technology. (~~3-18-22~~)

aa. 5X26-Aquifer Remediation. (~~3-18-22~~)

bb. 5X27-Other Wells. (~~3-18-22~~)

cc. 5X28[1]-Motor Vehicle Waste Disposal Wells[2]. (~~3-18-22~~)

dd. 5X29-Abandoned Water Wells. (~~3-18-22~~)

[1] The construction of wells in this subclass is currently prohibited in Idaho.

[2] The construction and operation of wells in these subclasses is currently ~~illegal~~ prohibited in Idaho.

~~036~~021. -- ~~039~~024. ~~(RESERVED)~~

~~040~~025. AUTHORIZATIONS, PROHIBITIONS AND EXEMPTIONS.

01. Authorizations. Construction and use of Class V deep injection wells may be authorized by permit as approved by the Director in accordance with these rules and the "Well Construction Standards Rules" found in IDAPA 37.03.09 which are authorized under Section 42-238, Idaho Code. (~~3-18-22~~)

02. Prohibitions. (~~3-18-22~~)

a. These rules prohibit the permitting, construction, or use of any Class I, III, IV, or VI injection well. (~~3-18-22~~)

b. No owner or operator shall construct, operate, maintain, convert, plug, abandon, or conduct any other injection activity in a manner that allows or causes the movement of fluid containing any contaminant into underground sources of drinking water, if the presence of that contaminant may cause a violation of any primary or secondary drinking water regulation, under IDAPA 58.01.11, "Ground Water Quality Rule," Section 200 or may otherwise adversely affect the health of persons. The applicant for a permit ~~shall have~~has the burden of showing that the ~~requirements of Paragraph 040.02.c. are met~~injection of any fluid does not present an imminent and substantial endangerment to the health of persons. (~~3-18-22~~)

c.
Notwithstanding any other provision of this section, the Director may take emergency action upon receipt of information that a contaminant which is present in or likely to enter a public water system or ~~underground source of drinking water~~ a USDW may present an imminent and substantial endangerment to the health of persons. (~~3-18-22~~)

d. ~~Construction of large~~Large capacity cesspools, motor vehicle waste disposal wells, radioactive waste disposal wells, and untreated sewage disposal wells ~~is~~are prohibited. All prohibited wells described in this section must be decommissioned in accordance with these rules. ~~Construction and use of other Class V shallow injection wells are authorized by these rules without permit provided that:~~ (~~3-18-22~~)

~~i. Required inventory information is submitted to the Director pursuant to Subsection 070.01 of this rule. (3-18-22)~~

~~ii. Use of the shallow injection well shall not result in unreasonable contamination of a USDW or cause a violation of surface or ground water quality standards that would affect a beneficial use. (3-18-22)~~

e. Construction of new Subclass 5F1 - Agricultural Runoff Waste injection wells is prohibited. ( )

f. ~~Class IV injection wells used to inject~~These rules do not prohibit the injection of contaminated ground water ~~that has been treated and is being reinjected~~ into the same formation from which it was drawn ~~are not prohibited by these rules~~ provided the contaminated ground water is treated and if such injection is approved by EPA, ~~or Idaho,~~ pursuant to provisions for cleanup of releases under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ~~(CERCLA)~~, 42 U.S.C. 9601–9657, or pursuant to requirements and provisions under the Resource Conservation and Recovery Act ~~(RCRA)~~, 42 U.S.C. 6901 through 6987. (~~3-18-22~~)

~~**f.** All large capacity cesspools must be properly decommissioned by January 1, 2005. A cease and desist order may be issued to the owner or the operator when a large capacity cesspool is found to be a threat to the ground water resources as described in Paragraph 070.01.c. (3-18-22)~~

~~**g.** All motor vehicle waste disposal wells must be properly decommissioned by January 1, 2005. A cease and desist order may be issued to the owner or the operator when a motor vehicle waste disposal well is found to be a threat to the ground water resources as described in Paragraph 070.01.c. (3-18-22)~~

~~**h.** The Construction, operation or maintenance of any non-experimental Class V geologic sequestration well is prohibited. (3-18-22)~~

~~i. Owners or operators of shallow injection wells are prohibited from injecting into the well upon failure to submit inventory information in a timely manner pursuant to Paragraph 070.01.a. of these rules. (3-18-22)~~

03. Exemptions. (~~3-18-22~~)

a. Construction and use of Class V shallow injection wells are authorized by these rules without permit provided that: ( )

i. Required inventory information is submitted to the Director in accordance with these rules. ( )

ii. Use of a shallow injection well shall not result in injection of recycled water derived from municipal of industrial sources. ( )

iii. Use of a shallow injection well shall not result in unreasonable contamination of a USDW or cause a violation of Ground Water Quality Standards that would affect a beneficial use. ( )

~~a~~**b.** ~~The UIC inventory and fee requirements of these rules do not apply to individual~~ Individual subsurface sewage disposal system wells~~. These systems are, however,~~ are exempt from these Rules but subject to the permitting and fee requirements of IDAPA 58.01.03 "Individual/Subsurface Sewage Disposal Rules," Title 39, Chapter 1 and Title 39, Chapter 36, Idaho Code. (~~3-18-22~~)

~~b. State or local government entities are exempt from the permit requirements of these rules for wells associated with highway and street construction and maintenance projects, but shall submit shallow injection well inventory information for said wells and shall comply with all other requirements of these rules. (3-18-22)~~

~~e~~**c.** Mine tailings backfill (5X13) wells are authorized by rule as part of mining operations. They are therefore exempt from ~~the ground water quality standards and~~ permitting requirements of these rules provided that their use is limited to the injection of mine tailings only. The use of any 5X13 well(s) shall not result in ground water quality standards at points of diversion for beneficial use ~~being~~ that ~~exceeded~~ exceed or otherwise affect a beneficial use. Should ground water quality standards be exceeded or beneficial uses be affected, the Director may order the wells to be put under the permit requirements of these rules, or the wells may be required to be remediated or closed. As a condition of their use, the Director may require the construction and sampling of monitoring wells by the owner/operator. 5X13 wells are subject to the inventory requirements ~~of Subsection 070.01~~ described in these Rules. (~~3-18-22~~)

04. Variance of Methods. The Director may approve the use of a different testing method or technology if it is no less protective of human health and the environment, will not allow the migration of injected fluids into a USDW, meets the intent of the rule, and yields information or data consistent with the original method or technology required. A request for review by the Director must be submitted in writing by the applicant, permit holder, or operator and be included with all pertinent information necessary for the Director to evaluate the proposed testing method or technology. ( )

~~041~~026. -- ~~069~~029. (RESERVED)

030. CLASS V SHALLOW INJECTION WELL REQUIREMENTS

01. Authorization. All owners or operators of shallow Class V injection wells, including improved sinkholes used for aquifer recharge, that dispose of nonhazardous and nonradioactive wastes are required to submit a Shallow Injection Well Inventory Form to the Department no later than thirty (30) days prior to commencement of construction for each new well or no later than thirty (30) days after the discovery of an existing injection well that has not previously been inventoried with the Department. ( )

02. Inventory Fees. For shallow injection wells constructed after July 1, 1997, the Shallow Injection

Well Inventory Form shall be accompanied by a fee as specified in Section 42-3905(2), Idaho Code, payable to the Department of Water Resources. State or local government entities are exempt from filing fees for shallow injection wells associated with highway and street construction and maintenance~~, but shall comply with all other requirements of these rules~~. ( )

03. Decommission. Owners or operators of shallow injection wells must notify the Director not less than thirty (30) days prior to permanent decommissioning of any shallow injection well.~~Permanent decommissioning~~ Decommissioning must be accomplished in accordance with procedures approved by the Director. ( )

04. Inter-Agency Cooperation. The Department may seek the assistance of other state or local government agencies or entities, including cities, counties, health districts, and highway districts to inventory, monitor, and inspect shallow injection wells. Assistance is to be negotiated through a memorandum of understanding between the Department and the state or local entity subject to the Director's approval. ( )

05. Cessation of Injection Well Activity. The Director will require immediate cessation of any Class V shallow injection well activity that causes or may cause unreasonable contamination of a USDW or a violation of ground water quality standards. ( )

031. -- 034. (RESERVED)

035. CLASS V INJECTION WELL REQUIREMENTS

01. Permit Required for Class V Deep Injection Wells. No person shall construct, modify, maintain, or use a Class V deep injection well unless a permit has been issued by the Director. An application for permit must be completed and filed with the director on a form approved by the department accompanied by a filing fee as specified in Section 42-3905(1), Idaho Code. Applications proposing to inject recycled water derived from municipal or industrial wastewater sources must also adhere to all applicable IDEQ rules and permitting requirements. ( )

02. Permit Requirements for Class V Shallow Injection Wells. No person shall construct, modify, maintain, or use a Class V shallow injection well to inject recycled water derived from municipal or industrial wastewater sources unless a permit has been issued by the Director. An application for permit must be completed and filed with the director on a form approved by the department accompanied by a filing fee as specified in Section 42-3905(1), Idaho Code. An application for permit may be required for the construction, modification, or use of all other shallow injection wells if the Director determines that the injection could result in unreasonable contamination of a USDW or cause a violation of Ground Water Quality Standards that would affect a beneficial use. Applications proposing to inject recycled water derived from municipal or industrial wastewater sources must also adhere to all applicable IDEQ rules and permitting requirements. ( )

03. Application Information Required. An applicant must submit the following information to the Director for all injection wells to be authorized by permit, unless the Director determines that it is not needed in whole or in part, and issues a written waiver to the applicant: ( )

a. Facility name and location; ( )

b. Name, address and phone number of the well operator; ( )

c. Class, subclass and function of the injection well (see Section 020); ( )

d. Latitude/longitude or legal description of the well location to the nearest ten (10) acre tract; ( )

e. Ownership of the well; ( )

f. County in which the injection well is located; ( )

g. Construction information for the well; ( )

h. ~~Quantity and general character of the injected fluids~~Describe the quality, composition, and quantity of the injected fluids; ( )

i. Status of the well; ( )

j. A topographic map or aerial photograph extending one (1) mile beyond property boundaries, depicting: ( )

(1) Location of the injection well and associated facilities described in the application; ( )

(2) Locations of other injection wells; ( )

(3) Approximate drainage area, if applicable; ( )

(4) Hazardous waste facilities, if applicable; ( )

(5) All wells used to withdraw drinking water; ( )

(6) All other wells, springs and surface waters. ( )

i. Distance and direction to nearest domestic well; ( )

ii. Depth to ground water; and ( )

iii. Alternative methods of waste disposal. ( )

04. Additional Information. The Director may require an applicant to submit additional information to demonstrate that the proposed or existing injection well will not endanger a USDW. The Director will not complete the processing of an application for which additional information has been requested until such time as the additional information is supplied. The Director may return any incomplete application and will not process such application until such time as the application is received in complete form. Additional information may include, but is not limited to the following items: ( )

a. A topographic map showing locations of the following within a two (2) mile radius of the injection well: ( )

(1) All wells producing water; ( )

(2) All exploratory and test wells; ( )

(3) All other injection wells; ( )

(4) Surface waters (including man-made impoundments, canals and ditches); ( )

(5) Mines and quarries; ( )

(6) Residences; ( )

(7) Roads; ( )

(8) Bedrock outcrops; and ( )

(9) Faults and fractures. ( )

b. Additional maps or aerial photographs of suitable scale to accurately depict the following:

( )

(1) Location and surface elevation of the injection well described in this permit; ( )

(2) Location and identification of all facilities within the property boundaries; ( )

(3) Locations of all wells penetrating the proposed injection zone or within a one-quarter (1/4) mile radius of the injection well; ( )

(4) Maps and cross sections depicting all underground sources of drinking water to include vertical and lateral limits within a one-quarter (1/4) mile radius of the injection well, their position relative to the injection zone and the direction of water movement: local geologic structures; regional geologic setting. ( )

c. A comprehensive report of the following information: ( )

(1) A tabulation of all wells penetrating the proposed injection zone, listing owner, lease holder and operator; well identification (permit) number; size, weight, depth and cementing data for all strings of casing; ( )

(2) ~~Description of the quality and quantity of fluids to be injected~~Description of the quality, composition, and quantity of fluids to be injected; ( )

(3) ~~Geologic, hydrogeologic, and physical characteristics of the injection zone and confining beds~~Description of geologic, hydrogeologic, and geochemical conditions present in the injection zone and confining beds; methods for determining geochemical conditions must be approved by the Director; ( )

(4) Engineering data for the proposed injection well; ( )

(5) Proposed operating pressure; ( )

(6) A detailed evaluation of alternative disposal practices; ( )

(7) A plan of corrective action for wells penetrating the zone of injection, but not properly sealed or decommissioned; and ( )

(8) Contingency plans to cope with all shut-ins or well failures to prevent the migration of unacceptable fluids into underground sources of drinking waters. ( )

d. Name, address and phone number of person(s) or firm(s) supplying the technical information and/or designing the injection well; ( )

e. Proof that the applicant is financially responsible, through a performance bond or other appropriate means, to decommission the injection well in a manner approved by the Director. ( )

036. -- 049. (RESERVED)

050. CLASS V INJECTION WELL REQUIREMENTS – APPLICATION PROCESSING

01. Draft Permit Preparation. After all application information is received and evaluated, the Director will prepare a draft permit or denial, which will include the application for permit, permit conditions or reasons for denial, and any compliance schedules or monitoring requirements. In preparing the draft permit or denial, the Director must consider the following factors: ( )

a. The availability of economic and practical alternative means of disposal; ( )

b. The application of best management practices to the facilities and/or area draining into the well; ( )

c. The availability of economical, practical means of treating or otherwise reducing the amount of contaminants in the injected fluids; ( )

d. The quality of the receiving ground water, its category, its present and future beneficial uses or interconnected surface water; ( )

e. The location of the injection well with respect to drinking water supply wells; and ( )

f. Compliance with ~~the IDAPA 58.01.11, "Ground Water Quality Rule."~~ Ground Water Quality Standards. ( )

g. The benefit to the State of Idaho. ( )

02. Public Notice. The Director will provide public notice of any draft permit to construct, maintain or modify a Class V injection well by means of a legal notice in a newspaper of general circulation in the county in which the well is located. The Director may give additional notice as necessary to adequately inform the interested public and governmental agencies. There shall be a period of at least thirty (30) days following publication for any interested person to submit written comments.~~and to request a fact-finding hearing. The hearing will be held by the Director if deemed necessary.~~ ( )

03. Review by the Directors of Other State Agencies. The Directors of other state agencies, as determined by the Director, shall be ~~provided the~~given an opportunity to review and comment on draft permits. Comments must be submitted to the Director within thirty (30) days of public notice. ( )

04. Open-Loop Heat Pump Return Wells (Subclass 5A7). The Director may waive the draft permit and recurring permit cycle requirements of these rules for any application proposing use of an open-loop heat pump return well greater than eighteen (18) feet in depth solely for disposal of heat pump water at a rate not exceeding fifty (50) gpm. ( )

05. Fact-Finding Hearings. At the Director's discretion, or upon motion of any interested individual, the Director may elect to hold a fact-finding hearing. Said hearing will be held at a location in the geographical area of the injection well. Notice of said hearing will be provided at least thirty (30) days in advance of the hearing by regular mail to the applicant and to the person or persons requesting the hearing. Public notice of the fact-finding hearing shall be made in a newspaper of general circulation in the county where the injection well is located. ( )

06. Draft Permit Final Review and Consideration. The Director will consider the following factors when taking final action on draft permits: ( )

a. The potential for unreasonable contamination or deterioration of ground water quality: ( )

b. The likelihood and consequences of the injection well system failing; ( )

c. The long-term effects of such disposal or storage; ( )

d. The recommendations and related justifications of the Directors of other state agencies and the public; ( )

e. The potential for violation of Ground Water Quality Standards at the point of injection or the point of beneficial use; and ( )

f. Compliance with the Idaho Ground Water Quality Plan. ( )

07. Issuance of Permit. After considering the draft permit for construction, modification, or

maintenance, and all matters relating thereto, the Director shall issue a permit if the standards and criteria ~~of Subsection 070.05~~ be met and USDW's will not ~~otherwise~~ be unreasonably affected. If the Director finds that the standards and criteria cannot be met or that ground water sources cannot ~~otherwise~~be protected from unreasonable contamination at all times, the draft permit may be denied or a permit may be issued with conditions designed to protect ground water sources. The Director's decision will be in writing and a copy mailed by regular mail to the applicant and to all persons who commented in writing on the draft permit or appeared at a hearing held to consider the draft permit. ( )

08. Permit Conditions and Requirements. Any permit issued by the Director shall contain conditions to ~~insure that~~protect ground water sources ~~will be protected~~from waste, ~~unreasonable~~ contamination, or deterioration of Ground Water Quality ~~that could result in violations of the ground water quality~~Standards. In addition to specific construction, operation, maintenance ~~and~~, monitoring, and reporting requirements that the Director finds necessary, each permit shall be subject to the standard conditions and requirements of this rule. ( )

09. Permit Decision Notice. The Director's decision shall be in writing and a copy shall be mailed by regular mail to the applicant and all persons who commented in writing on the draft permit or appeared at a hearing held to consider the draft permit. ( )

051. (RESERVED)

052. CLASS V INJECTION WELL CONSTRUCTION AND OPERATION REQUIREMENTS ( )

01. Construction Requirements. The following requirements apply to all Class V injection wells authorized by permit unless noted differently: ( )

a. Deep injection wells shall be constructed by an Idaho licensed well driller to conform with the current Well Construction Standards (IDAPA 37.03.09), the conditions of the well construction permit, and the conditions of the ~~UIC~~injection well permit issued pursuant to these rules, except that a driller's license is not required for the construction of a driven mine shaft or a dug hole. ( )

b. Well drillers or other persons involved with the construction of any injection well shall not commence construction of the injection well until a certified copy of the approved injection well permit is obtained from the Director. ( )

c. Injection wells shall be constructed in accordance with the conditions of the permit. Rule-authorized shallow injection wells shall be constructed as shown or described in the inventory submittal. ( )

d. Injection wells shall be constructed to prevent the entrance of any fluids other than specified in the permit. ( )

e. Deep injection wells shall be constructed to prevent waste of artesian fluids or movement of fluids from one aquifer into another. ( )

f. When construction or modification of an injection well has been completed, the owner or operator shall inform the Director of completion on a form provided by the Department. ( )

g. A sampling port shall be provided for deep injection well systems if the system is enclosed. ( )

h. All new injection wells constructed into alluvial formations shall have a minimum ten (10) foot separation from the bottom of the well and seasonal high ground water. ( )

02. Operational Conditions and Requirements. The following requirements apply to all Class V injection wells authorized by permit unless noted differently: ( )

a. The injection well shall not be used until the construction, operation and maintenance requirements

of the permit are met and provisions are made for any required inspection, monitoring and record keeping. ( )

b. For both permitted injection wells and rule-authorized shallow injection wells, injection of any contaminant at concentrations exceeding the standards described in Section 055 of this rule into a present or future drinking or other ground water source that may cause a health hazard or adversely affect a designated and protected use is prohibited. ( )

c. The injection well owner or operator shall develop approved procedures to detect constructional or operational failure in a timely fashion and shall have contingency plans to cope with the well failure. ( )

d. Authorized representatives of the Department shall be allowed to enter, inspect and/or sample: ( )

(i.) The injection well and related facilities; ( )

(ii.) The owner or operator's records of the injection operation; ( )

(iii.) Monitoring instrumentation associated with the injection operation; and ( )

(iv.) The injected fluids. ( )

e. The injection facilities shall be operated and maintained to achieve compliance with all terms and conditions of this permit. ( )

f. Proper operation and maintenance includes effective performance, adequate funding, operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures; ( )

g. If compliance cannot be met, the owner shall take corrective action as determined by the Director or terminate injection. ( )

h. The owner shall mitigate any adverse effects resulting from non-compliance with the terms and conditions of the permit. ( )

i. If the injection well was constructed prior to issuance of the permit, the well shall be brought into compliance with the terms and conditions of the permit in accordance with the schedule of compliance issued by the Director. ( )

j. The permit shall not convey any property rights. ( )

03. Conditions of Permanent Decommissioning. The following requirements apply to all Class V injection wells authorized by permit and rule authorized shallow injection wells, unless noted differently: ( )

a. Notice of intent to permanently decommission a well shall be submitted to the Director not less than thirty (30) days prior to commencement of the decommissioning activity. ( )

b. The method of permanent decommissioning for all injection wells shall be approved by the Director prior to commencement of the decommissioning activity. ( )

c. Notice of completion of permanent decommission shall be submitted to the Director within thirty (30) days of completion. ( )

d. All deep injection wells that are to be permanently decommissioned shall be plugged in accordance with current Well Construction Standards. ( )

e. Following permanent cessation of use, or where an injection well is not completed, the Director shall be notified. Decommissioning procedures or other action, as prescribed by the Director, shall be conducted. ( )

f. The injection well owner or operator has the responsibility to ensure that the injection operation is decommissioned as prescribed. ( )

04. Duration of Approved Permits. The length of time that a permit may be in effect for Class V wells authorized by permit shall not exceed ten (10) years. ( )

053 - 054. (Reserved)

055. Standards For the Quality of Fluids Injected into Class V Wells. ( )

01. General. Injected fluids shall meet Ground Water Quality Standards for physical, biological, chemical, and radiological contaminants, and if ground water produced from adjacent points of diversion for beneficial use meets the Ground Water Quality Standards as defined in these rules, then that aquifer will be protected from unreasonable contamination and will be preserved for diversion to beneficial uses. The Director may, however, when it is deemed necessary, require specific injection wells to be constructed and operated in compliance with additional requirements, such as best management practices (BMPs), so as to protect the ground water resource from deterioration and preserve it for diversion to beneficial use. ( )

02. Waivers. A waiver of one (1) or more standards may be granted by the Director if it can be demonstrated by the applicant that the contaminants in injected fluid will not endanger a ground water source for any present or future beneficial use. ( )

03. Chemical and Radiological Contaminants in Injected Fluids. The following limits shall not be exceeded in injected fluids from a well when such fluids will or are likely to reach a USDW: ( )

a. The concentration of each chemical contaminant in the injected fluids shall not exceed the concentration of each applicable contaminant in the receiving water or the ground water quality standard, whichever is less stringent; and ( )

b. Radiological levels of the injected fluids shall not exceed those levels specified by the Ground Water Quality Standards. ( )

04. Biological contaminants. The following restrictions apply to injected fluids with biological contaminants included in the ground water quality standard. ( )

a. Contamination of ground water produced at any point of diversion for beneficial use by injected fluids containing coliform bacteria in concentrations greater than the current ground water quality standard is prohibited; ( )

b. Construction of shallow and deep injection wells, as specified by the Director, that are likely to exceed the current ground water quality standard for coliform bacteria at the point of diversion for beneficial use is prohibited; and ( )

c. The Director may require the use of best management practices (BMPs) to reduce the potential concentration of coliform bacteria in the injected fluids; ( )

d. The Director may require the use of water treatment technology, including ozonation and chlorination devices, sand filters, and settling pond specifications to reduce the potential concentration of coliform bacteria in injected fluids; ( )

e. Ground water produced from points of diversion for beneficial use within the distances identified in Table 1. that inject fluids containing coliform bacteria in concentrations greater than the current ground water quality

standard shall be subject to monitoring for bacteria by the owner/operator of the injection well. A waiver of the monitoring requirement may be granted by the Director when it can be demonstrated that injection will not result in unreasonable contamination of ground water produced from these adjacent points; ( )

f. At no time shall any untreated fluid containing ~~or suspected of containing~~fecal contaminants of human origin be injected into any Class V injection well authorized under these rules. ~~Irrigation practices using~~Subsurface fluid distribution systems that apply or distribute recycled water ~~limited to saturation of discharged into~~to the root-zone and regulated by IDEQ ~~under IDAPA 58.01.17 (Recycled Water Rules)~~are exempt from this rule. ( )

05. **Physical, visual, and olfactory characteristics.** The following restrictions apply to physical, visual, and olfactory characteristics of injected fluids. The temperature, color, odor, conductivity, turbidity, pH, or other characteristics of the injected fluid may not result in the receiving ground water becoming less suitable for diversion to beneficial uses, as determined by the Director. ( )

06. Injectate Standards for the Quality of Recycled Water Derived from a Municipal or Industrial Wastewater Source. ( )

a. **Shallow Injection Wells.** The concentration of contaminants in recycled water derived from municipal or industrial wastewater sources must prevent contamination and comply with established Ground Water Quality Standards and all other applicable IDEQ rules and permitting requirements prior to injecting into a shallow injection well. ( )

b. **Deep Injection Wells.** The concentration of contaminants in recycled water derived from municipal or industrial wastewater sources must prevent contamination and comply with established Ground Water Quality Standards and all other applicable IDEQ rules and permitting requirements prior to injecting into a deep injection well. Additionally, injected fluids must not result in the endangerment of a USDW. Recycled water quality requirements shall be determined by the Department in coordination with IDEQ during the permitting process. The background concentration of any applicable contaminant shall be determined by a statistical analysis consisting of a type and method approved by the Department. ( )

07. Standards for the Quality of Fluids Injected to Subclass 5A7 Wells (Open-Loop Heat Pump Return). ( )

a. The quality of fluids injected to a Subclass 5A7 injection well shall comply with Ground Water Quality Standards or shall be equal to the quality of the ground water source passed through a heat exchange system, whichever is less stringent. ( )

b. If the quality of the ground water source does not meet Ground Water Quality Standards, the injected fluids must be returned to the formation from which they were drawn. ( )

c. The temperature of the injected fluids shall not impair the designated beneficial uses of the receiving ground water. ( )

056. (RESERVED)

057. Criteria for Location and Use of Class V Wells Requiring Permits. ( )

01. General: A Class V injection well requiring a permit may be required to be located a minimum distance, as determined from Table 1, from any point of diversion for beneficial use that could be harmed by bacterial contaminants. The minimum distance shown in Table 1 is also referred to as the zone of influence. This requirement is not applicable to wells injecting fluids of quality that meet adopted Ground Water Quality Standards. In addition, the Director may require a Class V injection well to be located a distance from a point of diversion for beneficial use to minimize or prevent ground water contamination resulting from unauthorized or accidental injection, as determined by the Director. ( )

a. The location requirements in Table 1 may be waived when the applicant can demonstrate that any springs or wells within the minimum distance as determined from Table 1 will not be contaminated by the applicant's injection well. The applicant may be required to monitor production wells or springs within the minimum distance as determined in Table 1 to demonstrate that they are not being contaminated. ( )

Determined Radii of the Zone of Influence Based on Maximum Average Weekly Injection Rates (cfs) of Class V Injection Wells *	
Injection (cfs)	**Radius (ft)**
0 - 0.20	800
0.21 - 0.60	1,400
0.61 - 1.00	1,800
1.01 - 2.00	2,500
2.01 - 3.00	3,000
3.01 - 4.00	3,500
4.01 - 5.00	4,000
Greater than 5.00	As determined by the Director

* Injection rates shall be based on the average volume of fluids injected into the well during the week of greatest injection in an average water year. ( )

~~**b.** Injection wells installed into fractured basalt are exempt from separation distances. ( )~~

b. The Director may reduce separation distance requirements if the quality of injected fluids are improved through additional treatment or BMPs. ( )

c. Heat pump return wells (sub-class 5A7) are exempt from the separation distance requirement of this section. ( )

058. Monitoring, Record Keeping, and Reporting Requirements. The Director may require monitoring, record keeping, and reporting by any owner or operator if the Director finds that the well may adversely affect a ground water source or is injecting a contaminant that could have an unacceptable effect upon the quality of the ground waters of the state. ( )

01. Monitoring. The Director may require, as conditions of the permit, the installation, use, and maintenance of monitoring equipment or methods including, but not limited to, the following: ( )

a. Monitoring of injection pressures and pressures in the annular space between casings; ( )

b. Flow rate and volumes; ( )

c. Analysis of quality of the injected fluids for contaminants that are subject to limitation or reduction under the conditions of the permit; or other contaminants which the Director has reason to believe are in the injected

fluids; ( )

d. Monitoring of ground water through special monitoring wells or existing points of diversion for beneficial use in the zone of influence as determined by the Director; ( )

e. A demonstration of the integrity of the casing, tubing, or seal of the injection well. ( )

f. The frequency of required monitoring shall be specified in the permit when issued, except that the Director at any time may, in writing, require additional monitoring and reporting. ( )

g. All monitoring tests and analysis required by permit conditions shall be performed in a state certified laboratory or other laboratory approved by the Director. ( )

h. Any field instrumentation used to gather data, when specified as a condition of the permit, shall be required by the Director to be tested and maintained in such a manner as to ensure the accuracy of the data. ( )

i. All samples and measurements taken for the purpose of monitoring shall be representative of the monitoring activity and fluids injected. ( )

02. Record Keeping. The permittee shall maintain records of all monitoring activities to include: ( )

a. Date, time, and exact place of sampling; ( )

b. Person or firm performing analysis; ( )

c. Date of analysis, analytical methods used and results of analysis; ( )

d. Calibration and maintenance of all monitoring instruments; and ( )

e. All original tapes, strip charts or other data from continuous or automated monitoring instruments. ( )

03. Reporting. Monitoring results obtained by the permittee pursuant to the monitoring requirements prescribed by the Director shall be reported to the Director as required by permit conditions. ( )

a. The Director shall be notified in writing by the permittee within five (5) days after the discovery of a violation of the terms and conditions of the permit. If the injection activity endangers human health or a public or domestic water supply, use of the injection well shall be immediately discontinued, and the owner or operator shall immediately notify the Director. Notification shall contain the following information: ( )

i. A description of the violation and its cause; ( )

ii. The duration of the violation, including dates and times; if not corrected or use of the well discontinued, the anticipated time of correction; and ( )

iii. Steps being taken to reduce, eliminate and prevent recurrence of the injection. ( )

b. Where the owner or operator becomes aware of failure to submit any relevant facts in any permit application or report to the Director, that person shall promptly submit such facts or information. ( )

c. The permittee shall furnish the Director, within a time specified by the Director, any information which the Director may request to determine compliance with the permit. ( )

d. The Director shall be notified in writing of planned physical alterations or additions to any facility related to the permitted injection well operation. ( )

e. Additional information to be reported to the Director in writing shall include: ( )

i. Transfer of ownership; ( )

ii. Any change in operational status not previously reported; ( )

iii. Any anticipated noncompliance; and ( )

iv. Reports of progress toward meeting the requirements of any compliance schedule attached or assigned to an approved permit. ( )

f. All notices and reports submitted to the Director shall be signed and certified. ( )

05. Permit Assignable. Permits may be assigned to a new owner or operator of an injection well if the new owner or operator, within thirty (30) days of the change, notifies the Director of such change. The new owner or operator shall be responsible for complying with the terms and conditions of the permit from the time that such change takes place. ( )

058. -- 059. (RESERVED)

060. HEARING BEFORE THE IDAHO WATER RESOURCE BOARD.

01. Hearings on Conditional Permits, Disapproved Applications, or Petitions for Exemption. Any owner or operator aggrieved by the approval or disapproval of an application, or by conditions imposed upon a permit, or any person aggrieved by the Director's decision on a petition for exemption under these rules, shall be afforded an opportunity for a hearing before the Board or its designated hearing officer in accordance with Idaho Code § 42-3909.~~Section 025 of IWRB. Written notice of such a grievance shall be transmitted to the Director within thirty (30) days after receipt of notice of such approval, disapproval or conditional approval. Such hearing shall be held for the purpose of determining whether the permit shall be issued, whether the conditions imposed in a permit are reasonable, whether a change in circumstance warrants a change in conditions imposed in a valid permit, or whether the Director's decision on a petition for exemption should not be changed.~~ ( )

02. Hearings on Permit Cancellations. The Board shall provide notice and an opportunity for a hearing to the holder of any permit proposed to be cancelled by the Director in accordance with Idaho Code § 42-3910.~~has reason to believe the operation of an injection well for which a permit has been issued is interfering with the right of the public to withdraw water for beneficial uses, or is causing unreasonable contamination of a drinking or other ground water source as provided for in Title 42, Chapter 39, Idaho Code, the permit may be canceled by the Director. Prior to the cancellation of such permit there shall be a hearing before the Board for the purpose of determining whether or not the permit should be canceled. At least thirty (30) days prior to the hearing, a notice, which shall be in accordance with Chapter 52, Title 67, Idaho Code, shall be sent by certified mail to the owner or operator whose permit is proposed to be canceled. The Board shall affirm, modify, or reject the Director's decision and make its decision on the form of an order to the Director.~~ ( )

061. -- 069. (RESERVED)

070. VIOLATIONS, FORMAL NOTIFICATION AND ENFORCEMENT.

01. Violations. It shall be a violation of these rules for any owner or operator to: ( )

a. Fail to comply with a permit or authorization, or terms or conditions thereof; ( )

b. Fail to comply with applicable standards for water quality; ( )

c. Fail to comply with any permit application notification or filing requirement; ( )

d. Knowingly make any false statement, representation or certification in any application, report, document or record filed pursuant to these rules, or terms and conditions of an issued permit; ( )

e. Falsify, tamper with or knowingly render inaccurate any monitoring device or method required to be maintained or utilized by the terms and conditions of an issued permit; ( )

f. Fail to respond to any formal notification of a violation when a response is required; or ( )

g. Decommission a well in an unauthorized manner. ( )

02. Additional. It shall be a violation of these rules for any person to construct, operate, maintain, convert, plug, decommission or conduct any other activity in a manner which results or may result in the unauthorized injection of a hazardous or radioactive waste by an injection well. ( )

03. Enforcement. Violation of any of the provisions of the Injection Well Act (Chapter 39, Title 42, Idaho Code) or of any rule, regulation, standard or criteria pertaining to the Injection Well Act may result in the Director initiating an enforcement action as provided under Chapters 17 and 39, Title 42, Idaho Code. ( )

~~**070. CLASS V: CRITERIA AND STANDARDS.**~~

~~**01. Class V Shallow Injection Well Requirements**. (3-18-22)~~

~~**a. Authorization**. As a condition of authorization, all owners or operators of shallow Class V injection wells, including improved sinkholes used for aquifer recharge, that dispose of nonhazardous and nonradioactive wastes are required to submit a Shallow Injection Well Inventory Form to the Department no later than thirty (30) days prior to commencement of construction for each new well or no later than thirty (30) days after the discovery of an existing injection well that has not previously been inventoried with the Department. Forms are available from any Department office or at the Department website at http://www.idwr.idaho.gov. State or local government entities shall submit the following inventory information for wells associated with highway and street construction and maintenance projects. (3-18-22)~~

~~i. Facility name and location; and (3-18-22)~~

~~ii. County in which the injection well(s) is (are) located; and (3-18-22)~~

~~iii. Ownership of the well(s); and (3-18-22)~~

~~iv. Name, address and phone number of legal contact; and (3-18-22)~~

~~v. Type or function of the well(s); and (3-18-22)~~

~~vi. Number of wells of each type; and (3-18-22)~~

~~vii. Operational status of the well(s). (3-18-22)~~

~~**b. Inventory Fees**. For shallow injection wells constructed after July 1, 1997, the Shallow Injection Well Inventory Form shall be accompanied by a fee as specified in Section 42-3905, Idaho Code, payable to the Department of Water Resources. State or local government entities are exempt from Shallow Injection Well Inventory Form filing fees for wells associated with highway and street construction and maintenance, but shall comply with all other requirements of these rules. (3-18-22)~~

~~**c.** Permit Requirements. If operation of a shallow Class V injection well is causing or may cause unreasonable contamination of a USDW, or cause a violation of the ground water quality standards at a place of beneficial use, the Director shall require immediate cessation of the injection activity. Where a Class V injection well~~

is owned or operated by an entity other than a state or local entity involved in highway and street construction and maintenance, the Director may authorize continued operation of the well through a permit that specifies the terms and conditions of acceptable operation. (3-18-22)

d. Permanent **Decommission**. Owners or operators of shallow injection wells shall notify the Director not less than thirty (30) days prior to permanent decommissioning of any shallow injection well. Permanent decommissioning shall be accomplished in accordance with procedures approved by the Director. (3-18-22)

e. Inter-Agency Cooperation. The Department may seek the assistance of other government agencies, including cities and counties, health districts, highway districts, and other departments of state government to inventory, monitor and inspect shallow injection wells, where local assistance is needed to prevent deterioration of ground water quality, and where injection well operation overlaps with water quality concerns of other agencies or local governing entities. Assistance is to be negotiated through a memorandum of understanding between the Department and the local entity, agency, or department, and is subject to the approval of the Director. (3-18-22)

02. Class V Deep Injection Well Requirements. (3-18-22)

a. Application Requirements. (3-18-22)

i. No person shall continue to maintain or use an unauthorized injection well after the effective date given in Section 42-3903, Idaho Code, unless a permit therefor has been issued by the Director. No injection well requiring a permit under Subsection 070.02 shall be constructed, modified or maintained after the effective date given in Section 42-3903, Idaho Code, unless a permit therefor has been issued by the Director. No injection well requiring a permit shall continue to be used after the expiration of the permit issued for such well unless another application for permit therefor has been received by the Director. All applications for permit shall be on forms furnished by the Director.(3-18-22)

ii. Each application for permit to construct, modify or maintain an injection well, as required by these rules, shall be accompanied by a filing fee as specified in Section 42-3905, Idaho Code, payable to the Department of Water Resources. For the purposes of these rules, all wells or groups of wells associated with a "Remediation Project" may be administered as one (1) "well" at the discretion of the Director. (3-18-22)

b. Application Information Required. An applicant shall submit the following information to the Director for all injection wells to be authorized by permit, unless the Director determines that it is not needed in whole or in part, and issues a written waiver to the applicant: (3-18-22)

i. Facility name and location; (3-18-22)

ii. Name, address and phone number of the well operator; (3-18-22)

iii. Class, subclass and function of the injection well (see Section 035); (3-18-22)

iv. Latitude/longitude or legal description of the well location to the nearest ten (10) acre tract; (3-18-22)

v. Ownership of the well; (3-18-22)

vi. County in which the injection well is located; (3-18-22)

vii. Construction information for the well; (3-18-22)

viii. Quantity and general character of the injected fluids; (3-18-22)

ix. Status of the well; (3-18-22)

x. A topographic map or aerial photograph extending one (1) mile beyond property boundaries,

depicting: (3-18-22)

(1) Location of the injection well and associated facilities described in the application; (3-18-22)

(2) Locations of other injection wells; (3-18-22)

(3) Approximate drainage area, if applicable; (3-18-22)

(4) Hazardous waste facilities, if applicable; (3-18-22)

(5) All wells used to withdraw drinking water; (3-18-22)

(6) All other wells, springs and surface waters. (3-18-22)

xi. Distance and direction to nearest domestic well; (3-18-22)

xii. Depth to ground water; and (3-18-22)

xiii. Alternative methods of waste disposal. (3-18-22)

c. Additional Information. The Director may require the following additional information for Class V injection wells to assess potential effects of injection: (3-18-22)

i. A topographic map showing locations of the following within a two (2) mile radius of the injection well: (3-18-22)

(1) All wells producing water; (3-18-22)

(2) All exploratory and test wells; (3-18-22)

(3) All other injection wells; (3-18-22)

(4) Surface waters (including man-made impoundments, canals and ditches); (3-18-22)

(5) Mines and quarries; (3-18-22)

(6) Residences; (3-18-22)

(7) Roads; (3-18-22)

(8) Bedrock outcrops; and (3-18-22)

(9) Faults and fractures. (3-18-22)

ii. Additional maps or aerial photographs of suitable scale to accurately depict the following: (3-18-22)

(1) Location and surface elevation of the injection well described in this permit; (3-18-22)

(2) Location and identification of all facilities within the property boundaries; (3-18-22)

(3) Locations of all wells penetrating the proposed injection zone or within a one quarter (1/4) mile radius of the injection well; (3-18-22)

(4) Maps and cross sections depicting all underground sources of drinking water to include vertical and lateral limits within a one quarter (1/4) mile radius of the injection well, their position relative to the injection zone

and the direction of water movement: local geologic structures; regional geologic setting. (3-18-22)

iii. A comprehensive report of the following information: (3-18-22)

(1) A tabulation of all wells penetrating the proposed injection zone, listing owner, lease holder and operator; well identification (permit) number; size, weight, depth and cementing data for all strings of casing; (3-18-22)

(2) Description of the quality and quantity of fluids to be injected; (3-18-22)

(3) Geologic, hydrogeologic, and physical characteristics of the injection zone and confining beds; (3-18-22)

(4) Engineering data for the proposed injection well; (3-18-22)

(5) Proposed operating pressure; (3-18-22)

(6) A detailed evaluation of alternative disposal practices; (3-18-22)

(7) A plan of corrective action for wells penetrating the zone of injection, but not properly sealed or decommissioned; and (3-18-22)

(8) Contingency plans to cope with all shut-ins or well failures to prevent the migration of unacceptable fluids into underground sources of drinking waters. (3-18-22)

iv. Name, address and phone number of person(s) or firm(s) supplying the technical information and/or designing the injection well; (3-18-22)

v. Proof that the applicant is financially responsible, through a performance bond or other appropriate means, to decommission the injection well in a manner approved by the Director. (3-18-22)

d. Other Information. The Director may require of any applicant such additional information as may be necessary to demonstrate that the proposed or existing injection well will not endanger a USDW. The Director will not complete the processing of an application for which additional information has been requested until such time as the additional information is supplied. The Director may return any incomplete application and will not process such application until such time as the application is received in complete form. (3-18-22)

03. Application Processing. (3-18-22)

a. Draft Permit. After all application information is received and evaluated, the Director will prepare a draft permit or denial, which will include the application for permit, permit conditions or reasons for denial, and any compliance schedules or monitoring requirements. In preparing the draft permit or denial, the Director shall consider the following factors: (3-18-22)

i. The availability of economic and practical alternative means of disposal; (3-18-22)

ii. The application of best management practices to the facilities and/or area draining into the well; (3-18-22)

iii. The availability of economical, practical means of treating or otherwise reducing the amount of contaminants in the injected fluids; (3-18-22)

iv. The quality of the receiving ground water, its category, its present and future beneficial uses or interconnected surface water; (3-18-22)

v. The location of the injection well with respect to drinking water supply wells; and (3-18-22)

vi. Compliance with the IDAPA 58.01.11, "Ground Water Quality Rule." (3-18-22)

b. Public Notice. The Director will provide public notice of any draft permit to construct, maintain or modify a Class V injection well by means of a legal notice in a newspaper of general circulation in the county in which the well is located. The Director may give additional notice as necessary to adequately inform the interested public and governmental agencies. There shall be a period of at least thirty (30) days following publication for any interested person to submit written comments and to request a fact-finding hearing. The hearing will be held by the Director if deemed necessary. (3-18-22)

c. Review by the Directors of Other State Agencies. The Directors of other state agencies, as determined by the Director, shall be provided the opportunity to review and comment on draft permits. Comments shall be submitted to the Director within thirty (30) days of the public or legal notice. (3-18-22)

d. Open Loop Heat Pump Return Wells (Subclass 5A7). (3-18-22)

i. An open-loop heat pump return well greater than eighteen (18) feet in depth to be used solely for disposal of heat pump water at a rate not exceeding fifty (50) gpm does not require a draft permit and is not subject to a recurring permit cycle, however, registration of the well with the Department and submittal of a filing fee as specified in Section 42-3905, Idaho Code is required. The Director reserves the right to override the exemptions from the draft permit and permit cycle requirements. (3-18-22)

ii. An open-loop heat pump return well greater than eighteen (18) feet in depth to be used solely for disposal of heat pump return water at a rate exceeding fifty (50) gpm is subject to the requirements of Subsections 070.02 and 070.03 of these rules. (3-18-22)

e. Fact Finding Hearings. At the Director's discretion, or upon motion of any interested individual, the Director may elect to hold a fact finding hearing. Said hearing will be held at a location in the geographical area of the injection well. Notice of said hearing will be provided at least thirty (30) days in advance of the hearing by regular mail to the applicant and to the person or persons requesting the hearing. Public notice of the fact finding hearing will be made by means of press release to a newspaper of general circulation in the county of the application. (3-18-22)

04. The Director's Action On Draft Permits and Duration Of Approved Permits. The role of the Director is to determine whether or not the injection wells and their respective owners or operators are in compliance with the intent of these rules, thus protecting the ground waters of the state against unreasonable contamination or deterioration of quality and preserving them for diversion to beneficial uses. (3-18-22)

a. Consideration. The Director will consider the following factors in taking final action on draft permits: (3-18-22)

i. The likelihood and consequences of the injection well system failing; (3-18-22)

ii. The long term effects of such disposal or storage; (3-18-22)

iii. The recommendations and related justifications of the Directors of other state agencies and the public; (3-18-22)

iv. The potential for violation of ground water quality standards at the point of injection or the point of beneficial use; and (3-18-22)

v. Compliance with the Idaho Ground Water Quality Plan. (3-18-22)

b. Issuance of Permit. After considering the draft permit for construction, modification, or maintenance, and all matters relating thereto, the Director shall issue a permit if the standards and criteria of Subsection 070.05 will be met and USDW's will not otherwise be unreasonably affected. If the Director finds that the standards

and criteria cannot be met or that ground water sources cannot otherwise be protected from unreasonable contamination at all times, the draft permit may be denied or a permit may be issued with conditions designed to protect ground water sources. The Director's decision shall be in writing and a copy shall be mailed by regular mail to the applicant and to all persons who commented in writing on the draft permit or appeared at a hearing held to consider the draft permit. (3-18-22)

c. Permit Conditions and Requirements. Any permit issued by the Director shall contain conditions to insure that ground water sources will be protected from waste, unreasonable contamination, or deterioration of ground water quality that could result in violations of the ground water quality standards. In addition to specific construction, operation, maintenance and monitoring requirements that the Director finds necessary, each permit shall be subject to the standard conditions and requirements of this rule. (3-18-22)

d. Construction Requirements. (3-18-22)

i. Well drillers or other persons involved with the construction of any injection well requiring a permit shall not commence construction on the facility until a certified copy of the approved permit is obtained from the Director. (3-18-22)

ii. Deep injection wells shall be constructed by a licensed water well driller to conform with the current Minimum Well Construction Standards and the conditions of the permit, except that a driller's license is not required for the construction of a driven mine shaft or a dug hole. (3-18-22)

iii. Shallow injection wells authorized by permit shall be constructed in accordance with the conditions of the permit. Rule authorized shallow injection wells shall be constructed as shown or described in the inventory submittal. (3-18-22)

iv. Injection wells shall be constructed to prevent the entrance of any fluids other than specified in the permit. (3-18-22)

v. Injection wells shall be constructed to prevent waste of artesian fluids or movement of fluids from one aquifer into another. (3-18-22)

vi. When construction or modification of an injection well has been completed, the owner or operator shall inform the Director of completion on a form provided by the Department. (3-18-22)

vii. A sampling port shall be provided if the injection well system is enclosed. (3-18-22)

viii. All new injection wells constructed into alluvial formations shall have a minimum ten (10) foot separation from the bottom of the well and seasonal high ground water. (3-18-22)

(1) Injection wells installed into fractured basalt are exempt from separation distances. (3-18-22)

(2) The Director may reduce separation distance requirements if the quality of injected fluids are improved through additional treatment or BMPs. (3-18-22)

(3) Heat pump return wells (sub-class 5A7) are exempt from the separation distance requirement of this section. (3-18-22)

e. Operational Conditions. (3-18-22)

i. The injection well shall not be used until the construction, operation and maintenance requirements of the permit are met and provisions are made for any required inspection, monitoring and record keeping. (3-18-22)

ii. Injection of any contaminant at concentrations exceeding the standards set in Paragraph 070.05.c. into a present or future drinking or other ground water source that may cause a health hazard or adversely affect a

designated and protected use is prohibited. (3-18-22)

iii. The injection well owner or operator shall develop approved procedures to detect constructional or operational failure in a timely fashion, and shall have contingency plans to cope with the well failure. (3-18-22)

iv. Authorized representatives of the Department shall be allowed to enter, inspect and/or sample: (3-18-22)

(1) The injection well and related facilities; (3-18-22)

(2) The owner or operator's records of the injection operation; (3-18-22)

(3) Monitoring instrumentation associated with the injection operation; and (3-18-22)

(4) The injected fluids. (3-18-22)

v. The injection facilities shall be operated and maintained to achieve compliance with all terms and conditions of this permit. (3-18-22)

(1) Proper operation and maintenance includes effective performance, adequate funding, operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures; (3-18-22)

(2) If compliance cannot be met, the owner shall take corrective action as determined by the Director or terminate injection. (3-18-22)

vi. The owner shall mitigate any adverse effects resulting from non-compliance with the terms and conditions of the permit. (3-18-22)

vii. If the injection well was constructed prior to issuance of the permit, the well shall be brought into compliance with the terms and conditions of the permit in accordance with the schedule of compliance issued by the Director. (3-18-22)

viii. The permit shall not convey any property rights. (3-18-22)

f. Conditions of Permanent Decommissioning. (3-18-22)

i. Notice of intent to permanently decommission a well shall be submitted to the Director not less than thirty (30) days prior to commencement of the decommissioning activity. (3-18-22)

ii. The method of permanent decommissioning for all injection wells shall be approved by the Director prior to commencement of the decommissioning activity. (3-18-22)

iii. Notice of completion of permanent decommission shall be submitted to the Director within thirty (30) days of completion. (3-18-22)

iv. All deep injection wells that are to be permanently decommissioned shall be plugged in accordance with current Well Construction Standards. (3-18-22)

v. Following permanent cessation of use, or where an injection well is not completed, the Director shall be notified. Decommissioning procedures or other action, as prescribed by the Director, shall be conducted. (3-18-22)

vi. The injection well owner or operator has the responsibility to insure that the injection operation is decommissioned as prescribed. (3-18-22)

g. Duration of Approved Permits. The length of time that a permit may be in effect for Class V wells requiring permits shall not exceed ten (10) years. (3-18-22)

05. Standards For The Quality of Injected Fluids and Criteria For Location and Use. (3-18-22)

a. General. These standards, which are minimum standards that are to be adhered to for all deep injection wells and shallow injection wells requiring permits and rule-authorized wells not requiring permits, are based on the premise that if the injected fluids meet ground water quality standards for physical, chemical and radiological contaminants, and if ground water produced from adjacent points of diversion for beneficial use meets the water quality standards as defined in Section 010 of these rules, then that aquifer will be protected from unreasonable contamination and will be preserved for diversion to beneficial uses. The Director may, however, when it is deemed necessary, require specific injection wells to be constructed and operated in compliance with additional requirements, such as best management practices (BMPs), so as to protect the ground water resource from deterioration and preserve it for diversion to beneficial use. (3-18-22)

b. Waivers. A waiver of one (1) or more standards may be granted by the Director if it can be demonstrated by the applicant that the contaminants in injected fluid will not endanger a ground water source for any present or future beneficial use. (3-18-22)

c. Standards for Quality of Fluids Injected into Class V Wells. (3-18-22)

i. Ground water quality standards for chemical and radiological contaminants in injected fluids. After the effective date of these standards, the following limits shall not be exceeded in injected fluids from a well when such fluids will or are likely to reach a USDW: (3-18-22)

(1) Chemical contaminants. The concentration of each chemical contaminant in the injected fluids shall not exceed the ground water quality standard for that chemical contaminant, or the concentration of each contaminant in the receiving water, whichever requirement is less stringent; and (3-18-22)

(2) Radiological contaminants. Radiological levels of the injected fluids shall not exceed those levels specified by the ground water quality standards. (3-18-22)

ii. Restrictions on injection of fluids containing biological contaminants. The following restrictions apply to biological contaminants included in the ground water quality standard in injected fluids. Coliform bacteria: injected fluids containing coliform bacteria are subject to the following restrictions: (3-18-22)

(1) Contamination of ground water produced at any existing point of diversion for beneficial use, or any point of diversion for beneficial use developed in the future, by injected fluids is prohibited; (3-18-22)

(2) The Director may require the use of best management practices (BMPs) to reduce the concentration of coliform bacteria in the injected fluids; (3-18-22)

(3) The Director may require the use of water treatment technology, including ozonation and chlorination devices, sand filters, and settling pond specifications to reduce the concentration of coliform bacteria in injected fluids; (3-18-22)

(4) Ground water produced from points of diversion for beneficial use adjacent to injection wells that dispose of fluids containing coliform bacteria in concentrations greater than the current ground water quality standard shall be subject to monitoring for bacteria by the owner/operator of the injection well. A waiver of the monitoring requirement may be granted by the Director when it can be demonstrated that injection will not result in unreasonable contamination of ground water produced from these adjacent points; (3-18-22)

(5) Construction of new Subclass 5F1 injection wells, and other shallow and deep injection wells, as specified by the Director, that are likely to exceed the current ground water quality standard for coliform bacteria at the point of beneficial use is prohibited; and (3-18-22)

(6) At no time shall any fluid containing or suspected of containing fecal contaminants of human origin be injected into any Class V injection well authorized under these rules. (3-18-22)

iii. Physical, visual and olfactory characteristics. The following restrictions apply to physical, visual and olfactory characteristics of injected fluids. Temperature, color, odor, turbidity, conductivity and pH: the temperature, color, odor, conductivity, turbidity, pH or other characteristics of the injected fluid may not result in the receiving ground water becoming less suitable for diversion to beneficial uses, as determined by the Director. (3-18-22)

iv. Contamination by an injection well of ground water produced at an existing point of diversion for beneficial use, or a point of diversion for beneficial use developed in the future, shall not exceed water quality standards defined in Section 010 of these rules. (3-18-22)

d. Criteria for Location and Use of Class V Wells Requiring Permits. (3-18-22)

i. A Class V well requiring a permit may be required to be located a minimum distance, as determined from Table 1, from any point of diversion for beneficial use that could be harmed by bacterial contaminants. This requirement is not applicable to injection wells injecting wastes of quality equal to or better than adopted ground water quality standards in all respects. In addition, Class V wells may be required to be located at such a distance from a point of diversion for beneficial use as to minimize or prevent ground water contamination resulting from unauthorized or accidental injection, as determined by the Director. (3-18-22)

ii. These location requirements in Table 1 may be waived, as per Paragraph 070.05.b., when the applicant can demonstrate that any springs or wells within the calculated perimeter of the generated perched water zone will not be contaminated by the applicant's waste disposal or injection well. Monitoring by the applicant of the production wells or springs in question may be required to demonstrate that they are not being contaminated.

Determined Radii of Perched Water Zones Based on Maximum Average Weekly Injection Rates (cfs) of Class V Injection Wells *

Injection (cfs)	Radius of Generated Perched Water Zone (ft)
0 - 0.20	800
0.20 - 0.60	1,400
0.61 - 1.00	1,800
1.01 - 2.00	2,500
2.01 - 3.00	3,000
3.01 - 4.00	3,500
4.01 - 5.00	4,000
Greater than 5.00	As determined by the Director

* Injection rates shall be based on the average volume of wastes injected by the well during the week of greatest injection in an average water year. (3-18-22)

e. Standards for the Quality of Fluids Injected by Subclass 5A7 Wells (Open-Loop Heat Pump Return).

(3-18-22)

i. The quality of fluids injected by a Subclass 5A7 injection well shall comply with ground water quality standards or shall be equal to the quality of the ground water source to the heat pump, whichever is less stringent. (3-18-22)

ii. If the quality of the ground water source does not meet ground water quality standards, the injected fluids must be returned to the formation containing the ground water source. (3-18-22)

iii. The temperature of the injected fluids shall not impair the designated beneficial uses of the receiving ground water. (3-18-22)

iv. All Rule-authorized Injection Wells shall conform to the ground water quality standards at the point of injection and not cause any water quality standards to be violated at any point of beneficial use. (3-18-22)

06. Monitoring, Record Keeping and Reporting Requirements. The Director may require monitoring, record keeping and reporting by any owner or operator if the Director finds that the well may adversely affect a ground water source or is injecting a contaminant that could have an unacceptable effect upon the quality of the ground waters of the state. (3-18-22)

a. Monitoring. (3-18-22)

i. Any injection authorized by the Director shall be subject to monitoring and record keeping requirements as conditions of the permit. Such conditions may require the installation, use and maintenance of monitoring equipment or methods. The Director may require where appropriate, but is not limited to, the following: (3-18-22)

(1) Monitoring of injection pressures and pressures in the annular space between casings; (3-18-22)

(2) Flow rate and volumes; (3-18-22)

(3) Analysis of quality of the injected fluids for contaminants that are subject to limitation or reduction under the conditions of the permit; or contaminants which the Director determines could have an unacceptable effect on the quality of the ground waters of the state, and which the Director has reason to believe are in the injected fluids; (3-18-22)

(4) Monitoring of ground water through special monitoring wells or existing points of diversion for beneficial use in the zone of influence as determined by the Director; (3-18-22)

(5) A demonstration of the integrity of the casing, tubing or seal of the injection well. (3-18-22)

ii. The frequency of required monitoring shall be specified in the permit when issued, except that the Director at any time may, in writing, require additional monitoring and reporting. (3-18-22)

iii. All monitoring tests and analysis required by permit conditions shall be performed in a state certified laboratory or other laboratory approved by the Director. (3-18-22)

iv. Any field instrumentation used to gather data, when specified as a condition of the permit, shall be required by the Director to be tested and maintained in such a manner as to ensure the accuracy of the data. (3-18-22)

v. All samples and measurements taken for the purpose of monitoring shall be representative of the monitoring activity and fluids injected. (3-18-22)

b. Record Keeping. The permittee shall maintain records of all monitoring activities to include: (3-18-22)

i. Date, time and exact place of sampling; (3-18-22)

ii. Person or firm performing analysis; (3-18-22)

iii. Date of analysis, analytical methods used and results of analysis; (3-18-22)

iv. Calibration and maintenance of all monitoring instruments; and (3-18-22)

v. All original tapes, strip charts or other data from continuous or automated monitoring instruments. (3-18-22)

c. Reporting. (3-18-22)

i. Monitoring results obtained by the permittee pursuant to the monitoring requirements prescribed by the Director shall be reported to the Director as required by permit conditions. (3-18-22)

ii. The Director shall be notified in writing by the permittee within five (5) days after the discovery of violation of the terms and conditions of the permit. If the injection activity endangers human health or a public or domestic water supply, use of the injection well shall be immediately discontinued and the owner or operator shall immediately notify the Director. Notification shall contain the following information: (3-18-22)

(1) A description of the violation and its cause; (3-18-22)

(2) The duration of the violation, including dates and times; if not corrected or use of the well discontinued, the anticipated time of correction; and (3-18-22)

(3) Steps being taken to reduce, eliminate and prevent recurrence of the injection. (3-18-22)

iii. Where the owner or operator becomes aware of failure to submit any relevant facts in any permit application or report to the Director, that person shall promptly submit such facts or information. (3-18-22)

iv. The permittee shall furnish the Director, within a time specified by the Director, any information which the Director may request to determine compliance with the permit. (3-18-22)

v. All applications for permits, notices and reports submitted to the Director shall be signed and certified. (3-18-22)

vi. The Director shall be notified in writing of planned physical alterations or additions to any facility related to the permitted injection well operation. (3-18-22)

vii. Additional information to be reported to the Director in writing: (3-18-22)

(1) Transfer of ownership; (3-18-22)

(2) Any change in operational status not previously reported; (3-18-22)

(3) Any anticipated noncompliance; and (3-18-22)

(4) Reports of progress toward meeting the requirements of any compliance schedule attached or assigned to this permit. (3-18-22)

07. Permit Assignable. Permits may be assignable to a new owner or operator of an injection well if the new owner or operator, within thirty (30) days of the change, notifies the Director of such change. The new owner or operator shall be responsible for complying with the terms and conditions of the permit from the time that such change takes place. (3-18-22)

071. -- 999. (RESERVED)

IDAPA 37 – IDAHO DEPARTMENT OF WATER RESOURCES

37.03.03 – RULES AND MINIMUM STANDARDS FOR THE CONSTRUCTION AND USE OF INJECTION WELLS

DOCKET NO. 37-0303-2301

NOTICE OF RULEMAKING - PROPOSED RULE

AUTHORITY: In compliance with Section 67-5221(1), Idaho Code, notice is hereby given that this agency has initiated proposed rulemaking procedures. The action is authorized pursuant to Section 42-1805(8), Idaho Code.

PUBLIC HEARING SCHEDULE: Public hearing(s) concerning this rulemaking will be scheduled if requested in writing by twenty-five (25) persons, a political subdivision, or an agency, no later than October 23, 2024.

The hearing site(s) will be accessible to persons with disabilities. Requests for accommodation must be made no later than five (5) days prior to the hearing, to the agency address below.

DESCRIPTIVE SUMMARY: The following is a nontechnical explanation of the substance and purpose of the proposed rulemaking:

The Idaho Department of Water Resources (IDWR) initiated this rulemaking in compliance with Executive Order No. 2020-01, Zero-Based Regulation (ZBR) (EO 2020-01), issued by Governor Little on January 16, 2020. Pursuant to EO 2020-01, each rule chapter effective on June 30, 2020, must be reviewed by the promulgating agency over a five-year period. This review is being conducted according to a schedule established by the Division of Financial Management, Office of the Governor (DFM), posted at https://adminrules.idaho.gov. This rule chapter was scheduled for review in 2023 and continued into 2024.

With this Notice, IDWR proposes a new chapter of Rules and Minimum Standards for the Construction and Use of Injection Wells (Injection Well Rules). The new chapter is approximately 14.5% shorter than the existing Injection Well Rule chapter following internal agency analysis and external stakeholder negotiation, commentary, and editing. The proposed rule offers a clear set of procedures and minimum standards for the construction and use of waste disposal and injection wells that protect ground water resources and promote public health. Changes include (a) a reorganization of rules to improve ease of use, (b) removal of unnecessary provisions, and (c) the modification of rules to improve clarity such as the addition of Injectate Standards for the Quality of Recycled Water Derived from Municipal or Industrial Wastewater Source. IDWR believes the regulatory measures in the Rule are necessary to protect ground water resources against unreasonable contamination or deterioration of quality to preserve such resources for existing and future diversion to beneficial uses.

The development of the proposed rule text through five publicly-released preliminary rule draft iterations may be viewed at: https://idwr.idaho.gov/legal-actions/rules/idwr-rulemaking-2023-2024/uic-rules/. On the same website, IDWR also developed and published rulemaking support documents, which provide IDWR's recommendations on rulemaking, rulemaking analysis, and responses to substantive comments received through the negotiated rulemaking process.

After consideration of public comments received in response to this Proposed Rule, IDWR will present the final rule text to the Idaho Legislature in the late fall of 2024.

FEE SUMMARY: The following is a specific description of the fee or charge imposed or increased:

IDAPA 37.03.03 establishes minimum standards and criteria for construction and abandonment of Class V deep and shallow injection wells in the state of Idaho and the injection of fluids to such wells. The rule also establishes the collection of fee(s) to file a notice of application set forth in Idaho Code §§ 42-3905(1) and 42-3905(2).

FISCAL IMPACT: The following is a specific description, if applicable, of any negative fiscal impact on the state general fund greater than ten thousand dollars ($10,000) during the fiscal year as a result of this rulemaking: N/A

NEGOTIATED RULEMAKING: Pursuant to Section 67-5220(1), Idaho Code, negotiated rulemaking was conducted. The Notice of Intent to Promulgate Rules - Negotiated Rulemaking was published in the April 5, 2023 Idaho Administrative Bulletin, Vol. 23-4, pages 68-69.

INCORPORATION BY REFERENCE: Pursuant to Section 67-5229(2)(a), Idaho Code, the following is a brief synopsis of why the materials cited are being incorporated by reference into this rule: N/A

ASSISTANCE ON TECHNICAL QUESTIONS, SUBMISSION OF WRITTEN COMMENTS: For assistance on technical questions concerning the proposed rule, contact Erik Boe at Erik.Boe@idwr.idaho.gov, (208) 287-4800.

Anyone may submit written comments regarding this proposed rulemaking by mail to the address below or by email to rulesinfo@idwr.idaho.gov. All written comments must be directed to the undersigned and must be delivered on or before October 23, 2024.

DATED this 30th day of August, 2024.

Erik Boe, Water Compliance Bureau Chief, Rules Regulation Officer
Idaho Department of Water Resources
322 E. Front Street
PO Box 83720 Boise, ID 83720-0098
Phone: (208) 287-4800

Memorandum

To: Idaho Water Resource Board Meeting

Date: August 26, 2024

Re: ESPA Recharge Program Conveyance Contracts

REQUIRED ACTION: Official action is required. Approval to move forward with one year conveyance contracts.

The Idaho Water Resource Board's (IWRB) conveyance contracts set the payment structure and other conditions required for entities to convey water for managed recharge. IWRB conveyance contracts for the Upper Valley (upstream of American Falls Dam) are limited to a one-year duration. The IWRB conveyance contracts for the Lower Valley (downstream of American Falls Dam) are limit to a duration of five years. The Lower Valley conveyance contracts have expired or will expire by the end of this year.

The payment structures and other contract requirements need to be reviewed to determine if they still align with the goals of the Eastern Snake Plain Aquifer (ESPA) Managed recharge program and address current operational conditions. Staff has collected feedback from some of the IWRB's recharge partners. In the Lower Valley the IWRB's recharge partners appear to be satisfied with the current three-tier payment structure. While Upper Valley partners are generally satisfied with the existing payment structure, they acknowledge that private entities pay significantly more than the IWRB's current structure.

Staff would like to explore alternative payment structures, uniform criteria for the Lower and Upper Valley, and a method to annualize the conveyance payments. However, considering the time necessary to review potential changes with IWRB members and partners, staff recommends execution of new one-year contracts for the 2024-2025 recharge season based on terms and conditions in the existing resolutions.

Depending on the availability of water associated with Surface Water Coalition Agreements, the one-year contracts may need to be active as early as September or October. Over this next fall staff will develop alternative criteria for new multi-year conveyance contracts for the IWRB to consider. This concept was presented to the Aquifer Stabilization Committee on August 8th and the committee recommend approval by the full IWRB.

<u>Potential Alternate Concepts to Explore:</u>

1. Adopt a universal payment structure across the ESPA with a specified dollar per acre-foot or a tiered system. This alternative would simplify end-of-season accounting for IWRB staff.
2. Issue an annual payment based on an average recharge volume. Given the variability of annual recharge volumes, particularly in the Upper Valley, this alternative may simplify the budget planning process for partners. In addition, averaging or annualizing payments may be helpful to recharge partners who are non-profit organizations that have difficulties managing a single large

payment for IWRB managed recharge in a highly variable system. However, developing an equable annual payment system will take time to develop.

Background

The IWRB's 2019 Resolution No. 18-2019 (attached) established terms for conveyance contracts with entities willing to deliver IWRB recharge water to the ESPA in the Lower Valley of the Snake River. The resolution defined the payment structure, maximum term/length of conveyance contracts, and other requirements for conducting IWRB managed recharge.

Conveyance contract conditions for recharge in the Upper Valley were established through IWRB Resolution No. 7-2016 (attached), passed in January of 2016. The conditions defined the payment structure for IWRB recharge in the Upper Valley, limit contracts to a one-year term, and establish other requirements for conducting IWRB managed recharge.

A brief summary of the current criteria in the attached resolutions is provided below.

The Lower Valley three-tiered payment structure:

Board Conveyance Payment Date Ranges	Payment Rate per AF Recharged
August 1st – November 15th	$7
November 16th – February 15th	$10
February 16th – July 31st	$5

The Upper Valley payment structure is also a tiered payment structure dependent on aquifer retention of the location of the managed recharge:

Board Conveyance Payment based on 5-year Retention*	Payment Rate per AF Recharged
Greater than 40% retention	$6
20% to 40% retention	$5
15% to Less than 20% retention	$4

- Retention as determined by the most recent ESPAM groundwater flow model

- **Added Incentive for Delivery** – $1.00/af when recharge is conducted at least 75% of the time that IWRB recharge right is in priority and IWRB issues a Notice to Proceed.
- **Added Winter-time Incentive for Delivery** – $1.00/af when IWRB recharge right is conducted between December 1st and March 31st and IWRB has issued a Notice to proceed.

BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF ESTABLISHING A RECHARGE CONVEYANCE PAYMENT STRUCTURE AND DISTRIPUTION PLAN FOR THE LOWER VALLEY	RESOLUTION TO APPROVE ESPA MANAGED RECHARGE PROGRAM STANDARDS AND PROCESSES

WHEREAS, the Eastern Snake Plain Aquifer (ESPA) has been losing approximately 216,000 acre-feet annually from aquifer storage since the 1950's resulting in declining ground water levels in the aquifer and declining spring flows from the aquifer; and

WHEREAS, the State of Idaho relies on spring discharge from the ESPA through the Thousand Springs to assist in meeting the minimum streamflow water rights at the Murphy Gage that were established under the Swan Falls Agreement; and

WHEREAS, the ESPA Comprehensive Aquifer Management Plan (CAMP) and the Idaho State Water Plan established managed recharge as being an appropriate means to enhance ground and surface water supplies, help maintain and increase aquifer levels, and change the timing and availability of water supplies to meet demand; and

WHEREAS, the 2016 Idaho Legislature passed and approved Senate Concurrent Resolution 136 directing the Idaho Water Resource Board (IWRB)to develop the capacity to achieve 250,000 acre-feet of annual average managed recharge to the ESPA by December 31, 2024; and

WHEREAS, House Bill 547 passed and approved by the 2014 legislature allocates $5 million annually from the Cigarette Tax to the IWRB for statewide aquifer stabilization; and

WHEREAS, Senate Bill 1402 passed and approved by the 2016 Legislature allocated $5 million in ongoing General Fund dollars and $2.5 million in Economic Recovery Reserve Funds to the IWRB's Secondary Aquifer Fund for statewide water sustainability and aquifer stabilization; and

WHEREAS, the IWRB intends to provide financial incentives to maximize recharge of water available under its water right permit.

NOW, THEREFORE BE IT RESOLVED that the IWRB adopts the following recharge delivery payment structure for canals that divert below Minidoka Dam (Lower Valley):

- Aug. 1st – Nov. 15th = $7/af
- Nov. 16th – Feb. 15th = $10/af
- Feb. 16th – Jul. 31st = $5/af; and

NOW, THEREFORE BE IT FURTHER RESOLVED that the IWRB shall have an annual meeting in the fall with the IWRB recharge partners to determine the recharge distribution plan for the upcoming recharge season to optimize IWRB natural flow recharge.

NOW, THEREFORE BE IT FURTHER RESOLVED that the IWRB will offer conveyance and operational contracts of up to 5-year terms and the designated rate will apply for the term of the conveyance and operational contract; and

NOW, THEREFORE BE IT FURTHER RESOLVED that the IWRB's ESPA managed recharge program will be coupled with a continuous monitoring program to verify the effects of managed recharge, and if necessary, modify the recharge program based on evaluation of the effects; and

NOW, THEREFORE BE IT FURTHER RESOLVED that the IWRB authorizes its chairman or designee, Brian Patton, Executive Officer to the IWRB, to execute the necessary agreements or contracts for IWRB ESPA Managed Recharge Program conveyance and operational fees.

DATED this 26th day of July, 2019.

ROGER W. CHASE, Chairman
Idaho Water Resource Board

ATTEST _____
VINCE ALBERDI, Secretary

BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF EASTERN SNAKE PLAIN AQUIFER STABILIZATION AND MANAGED AQUIFER RECHARGE	))))))	A RESOLUTION TO APPROVE A PAYMENT SCHEDULE FOR DELIVERY OF WATER FOR MANAGED RECHARGE IN THE UPPER VALLEY

WHEREAS, the State of Idaho relies on spring discharge from the ESPA through the Thousand Springs to assist in meeting the minimum streamflow water rights at the Murphy Gage that were established under the Swan Falls Agreement; and

WHEREAS, the Eastern Snake Plain Aquifer (ESPA) has been losing approximately 200,000 acre-feet annually from aquifer storage since the 1950's resulting in declining ground water levels in the aquifer and declining spring flows from the aquifer; and

WHEREAS, stabilizing the ESPA will help sustain spring flows sufficient to maintain the minimum flows at the Murphy Gage and reduce conflicts between groundwater and surface water users; and

WHEREAS, House Bill 547 passed and approved by the 2014 legislature allocates $5 million annually from the Cigarette Tax to the Idaho Water Resource Board (IWRB) for statewide aquifer stabilization; and

WHEREAS, the Eastern Snake Plain Aquifer Comprehensive Aquifer Management Plan (ESPA CAMP), identified managed recharge as a key strategy for achieving the goal of aquifer stabilization and recovery; and

WHEREAS, the IWRB intends to provide financial incentives to maximize recharge of water available under its water right permit.

NOW THEREFORE BE IT RESOLVED that the IWRB adopts the following recharge delivery payment structure for canals that divert above American Falls Reservoir:

1) Base Rate – determined by 5-year aquifer retention zone in which the contracted canal companies or irrigation district is located (retention zone will be assigned using ESPAM2.1):
   - Greater than 40% retained in aquifer at 5 years $6.00/AF delivered
   - 20% to 40% retained in aquifer at 5 years $5.00/AF delivered
   - 15% to Less than 20% retained in aquifer at 5 years $4.00/AF delivered

2) Cold Weather Incentive – an additional $1.00/AF for cold weather conveyance of IWRB recharge for water delivered between December 1st and March 31st.

3) Deliver Incentive – an additional $1.00/AF if the operator delivers recharge water over 75% of the days when the IWRB recharge right is in priority and IWRB issues a Notice to Proceed.

BE IT FURTHER RESOLVED that the allocation of water available for recharge above American Falls will be determined based on the following rating system. The available water will be divided equally between the top three rated entities with executed Water Conveyance Contracts with the Board. Water available in excess of the capacity of the top three rated entities will be available for delivery by other entities in order of their rating (highest to lowest).

The rating will be determined by the following point system:

1) Retention Rate (as determined by IDWR's ESPAM2.1):
   - Greater than 40% retained in aquifer at 5 years — 3 points
   - 20% to 40% retained in aquifer at 5 years — 2 points
   - 15% to Less than 20% retained in aquifer at 5 years — 1 points

2) Diversion Capacity:
   - 300 cfs or greater — 2.5 points
   - 200cfs to less than 300 cfs — 2.0 points
   - 100cfs to less than 200 cfs — 1.5 points
   - 50cfs to less than 100 cfs — 1.0 points
   - Less than 50 cfs — 0.5 points

BE IT FURTHER RESOLVED that the IWRB's ESPA managed recharge program will be limited to recharge of natural flow to avoid impacts to surface water storage above Milner Dam.

BE IT FURTHER RESOLVED that the IWRB authorizes execution of conveyance contracts with a term of one year.

BE IT FURTHER RESOLVED that the use of IWRB funds to develop infrastructure for recharge delivery shall be considered under separate resolutions.

BE IT FURTHER RESOLVED that the IWRB's ESPA managed recharge program will be coupled with a monitoring program approved by IDWR staff to verify the effects of managed recharge and, if necessary, modify the recharge program based on evaluation of the effects.

DATED this 22nd day of January 2016.

ROGER CHASE, Chairman
Idaho Water Resource Board

ATTEST

VINCE ALBERDI, Secretary