SENATE AMENDMENTS TO SENATE BILL 190

By COMMITTEE ON ENVIRONMENT AND NATURAL RESOURCES

April 29

1 On page 1 of the printed bill, line 3, after "ORS" insert "522.005,".

2 Delete lines 10 through 22 and delete pages 2 through 13 and insert:

3 "SECTION 1. ORS 522.005 is amended to read:

4 "522.005. As used in this chapter, unless the context requires otherwise:

5 "(1) 'Board' means the governing board of the State Department of Geology and Mineral Indus-6 tries.

7 "(2) 'By-product' means any mineral or minerals, exclusive of helium or of oil, hydrocarbon gas 8 or other hydrocarbon substances, that are found in solution or in association with geothermal re-9 sources and that have a value of less than 75 percent of the value of the geothermal resource or 10 are not, because of quantity, quality, or technical difficulties in extraction and production, of suffi-11 cient value to warrant extraction and production by themselves.

"(3) 'Completed geothermal well' means a well producing geothermal resources for which the operator has received the department's written assurance that the manner of drilling of and producing geothermal resources from the well are satisfactory.

"(4) 'Cooperative agreement' means an agreement or plan of development and operation for the production or utilization of geothermal resources in which separate ownership units independently operate without allocation of production.

"(5) 'Correlative rights' means the right of each owner in a geothermal area to obtain that owner's just and equitable share of the underlying geothermal resource, or an economic equivalent of that share of the resource, produced in a manner and in an amount that does not injure the reservoir to the detriment of others.

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"(6) 'Department' means the State Department of Geology and Mineral Industries.

23 "(7) 'Drilling' includes drilling, redrilling and deepening of a geothermal well.

24 "(8) 'Enhanced recovery' means the increased recovery from a reservoir achieved by artificial 25 means or by the application of energy extrinsic to the reservoir. The artificial means include, but 26 are not limited to, reinjection of hot brine, fluid or water into a reservoir.

"(9) 'Geothermal area' means any parcel of land that is, or reasonably appears to be, underlaid
by geothermal resources.

29 "(10) 'Geothermal reinjection well' means any well or converted well constructed to dispose of 30 geothermal fluids derived from geothermal resources into an underground reservoir.

"(11) 'Geothermal resources' means the natural heat of the earth, the energy, in whatever form, below the surface of the earth present in, resulting from, or created by, or that may be extracted from, the natural heat, and all minerals in solution or other products obtained from naturally heated fluids, brines, associated gases, and steam, in whatever form, found below the surface of the earth, exclusive of helium or of oil, hydrocarbon gas or other hydrocarbon substances, but including, spe1 cifically:

2 "(a) All products of geothermal processes, including indigenous steam, hot water and hot brines;

3 "(b) Steam and other gases, hot water and hot brines resulting from water, gas, or other fluids

4 artificially introduced into geothermal formations;

5 "(c) Heat or other associated energy found in geothermal formations; and

6 "(d) Any by-product derived from them.

"(12) 'Geothermal well' includes any excavation made for producing geothermal resources and
any geothermal reinjection well.

9 "(13) 'Land' means both surface and mineral rights.

10 "(14) 'Operator' means the person:

11 "(a) Who possesses the legal right to drill a geothermal well;

12 "(b) Who has obtained a drilling permit pursuant to ORS 522.135; or

"(c) Who possesses the legal right to operate a completed geothermal well or who has been granted the authority to operate the well by that person.

"(15) 'Prospect well' includes any well drilled as a geophysical test well, seismic shot hole, mineral exploration drilling, core drilling or temperature gradient test well[, *less than 2,000 feet in depth*,] and drilled in prospecting for geothermal resources. 'Prospect well' does not include a geothermal well.

"(16) 'Reservoir' means an aquifer or combination of aquifers or zones containing a common geothermal or ground water resource. 'Reservoir' includes, but is not limited to, a hot dry rock conductive system.

"(17) 'Royalty interest' means a right or interest in geothermal resources produced from land or in the proceeds of the first sale of those resources.

"(18) 'Unit agreement' means an agreement or plan of development and operation developed under the provisions of ORS 273.775, 308A.050 to 308A.128, 522.015, 522.405 to 522.545, 522.815 and 522.990 and this section for the production or use of geothermal resources in separately owned interests as a single consolidated unit and that provides for the allocation of costs and benefits.

28 "(19) 'Unit area' means the area described in a unit agreement that constitutes the land subject 29 to development under the agreement.

30 "(20) 'Unit operator' means the person designated in the unit agreement to manage and conduct 31 the operation involving unitized land.

"(21) 'Unit production' means all geothermal resources produced from a unit area from the effective date of a unit agreement approved by the board under ORS 522.405.

34 "(22) 'Waste' means:

"(a) Any physical waste, including, but not limited to, underground waste resulting from the inefficient, excessive or improper use or dissipation of reservoir energy or resulting from the location, spacing, drilling, equipping, operation or production of a geothermal resource well in such a manner that reduces or tends to reduce the ultimate economic recovery of the geothermal resources within a reservoir; and

40 "(b) Surface waste resulting from the inefficient storage of geothermal resources and the lo-41 cation, spacing, drilling, equipping, operation or production of a geothermal resource well in such 42 a manner that causes or tends to cause the unnecessary or excessive surface loss or destruction of 43 geothermal resources released from a reservoir.

44 "(23) 'Working interest' means an interest in geothermal resources or in land containing 45 geothermal resources that is held under a lease, operating agreement, fee title or otherwise and under which, except as otherwise provided in a unit or cooperative agreement, the owner of the
 interest has the right to explore for, develop, produce or utilize the resources. 'Working interest'
 does not include a right delegated to a unit operator as such by a unit agreement.

4 5 "SECTION 2. ORS 522.015 is amended to read:

"522.015. (1) The Legislative Assembly hereby finds and declares that:

6 "(a) The people of the State of Oregon have a direct and primary interest in the development 7 of geothermal resources situated in this state.

8 "(b) The State of Oregon, through the State Department of Geology and Mineral Industries, shall 9 control the drilling, redrilling and deepening of wells for the discovery and production of geothermal 10 resources so that such wells will be constructed, operated, maintained, **plugged** and [*abandoned*] 11 **decommissioned** in the manner necessary to safeguard the life, health, property and welfare of the 12 people of this state, to safeguard the air, water and other natural resources of this state, and to 13 encourage the maximum economic recovery of geothermal resources therefrom.

14 "(2) It is the policy of the Legislative Assembly that this chapter be administered:

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"(a) To prevent damage to and waste of geothermal resources;

"(b) To prevent interference with or damage to waters used or to be used for beneficial purposes
that may result from improper drilling, operation, maintenance, plugging or [abandonment] decommissioning of geothermal or prospect wells;

"(c) To supervise the drilling, operation, maintenance, **plugging** and [abandonment] **decommis**sioning of geothermal or prospect wells in a manner permitting the operator to utilize all methods known to the industry for the purpose of increasing the ultimate economic recovery of geothermal resources, that are suitable, and consistent with protection of the air, water and other natural resources of the state; and

24 "(d) To provide for the development, management and production of geothermal resources in a 25 manner that minimizes state involvement, enhances resource recovery, prevents waste, maximizes 26 economic development and protects correlative rights of the resource owners.

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"<u>SECTION 3.</u> ORS 522.019 is amended to read:

"522.019. (1)(a) In order to accomplish the policy of ORS 522.015 all geothermal fluids derived from geothermal resources shall be reinjected into the same reservoir from which withdrawn unless it is determined by the State Department of Geology and Mineral Industries that these policies and the public interest require other disposal of the fluids.

32(b) Subject to the determination in paragraph (a) of this subsection, injection into other reser-33 voirs or disposal by other means may be allowed by the department in specific instances where it 34is shown that such action is consistent with the policies cited in this section. Disposal by other 35 means may include any secondary use of geothermal fluid after the primary use of such fluid for electrical power generation or for other direct application of the heat or other associated energy 36 37 contained in such fluids or for by-product extraction. Secondary uses may include, but shall not be 38 limited to, use of condensate resulting from electrical power plant operations for plant-cooling purposes, or use of such geothermal fluid for agricultural, commercial or industrial purposes. 39

"(2) The State Department of Geology and Mineral Industries shall adopt rules [which govern] **governing** the disposal by reinjection or other means of geothermal fluids derived from geothermal resources from wells of 250 or more degrees Fahrenheit bottom hole temperature or wells 2,000 or more feet deep. The rules shall include standards whereby contamination may be determined, construction standards for reinjection wells, testing procedures for identifying aquifers, standards and procedures for determining whether adjacent aquifers are being degraded by the reinjection process, 1 guidelines for conservation of the resource, criteria for evaluating reservoirs or zones for 2 geothermal fluid disposal and requirements for prior approval of all geothermal fluid reinjection 3 proposals.

"(3) In addition to the permit required by ORS 522.115, an operator of a geothermal well 4 must obtain a water [pollution control facilities] quality permit [shall be obtained] from the De-5 partment of Environmental Quality under ORS 468B.050 or under rules authorized by ORS 6 7 468B.195 before [reinjection is commenced.] injection of any fluid, except well drilling fluids. [the 8 Department of Environmental Quality may, by agreement with the State Department of Geology and Mineral Industries, waive this requirement for reinjection into the reservoir from which the fluid came 9 10 where adequate standards and tests have been adopted to insure the fluid and its residues are uncon-11 taminated.] Nothing in this chapter limits the authority of the Department of Environmental Quality to regulate the subsurface injection of fluids pursuant to ORS 468B.195, 468B.196 and 12468B.197. 13

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"SECTION 4. ORS 522.025 is amended to read:

15 "522.025. (1) The provisions of this chapter relating to the location and drilling of any well for 16 the production of geothermal resources do not apply to any wells producing geothermal resources 17 on July 1, 1975, or wells, other than prospect wells, [drilled to a depth no greater than 2,000 feet] 18 where:

"(a) The geothermal fluids produced are of less than 250 degrees Fahrenheit bottom hole tem perature; or

21 "(b) Such fluids have been appropriated pursuant to ORS 537.505 to 537.795 and 537.992.

"(2) The provisions of this chapter relating to regulation of production of geothermal resources from a geothermal reservoir apply only to wells with a bottom hole temperature of at least 250 degrees Fahrenheit.

"(3) If the bottom hole temperature of a well that was initially at least 250 degrees Fahrenheit falls below 250 degrees Fahrenheit, the State Geologist and the Water Resources Director, after consulting with the well owner, shall determine the agency with regulatory responsibility for that specific well. This determination shall be documented in writing and shall supersede a determination made under subsection (1) or (2) of this section. This chapter does not limit the authority of the Water Resources Department to regulate the appropriation of water pursuant to ORS 537.505 to 537.795 and 537.992.

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"SECTION 5. ORS 522.045 is amended to read:

33 "522.045. Any well drilled under authority of this chapter from which usable geothermal resources cannot be derived, or the owner or operator has no intention of deriving usable geothermal 3435 resources, and that is not expected to provide information useful to the development of geothermal resources shall be plugged and [abandoned] decommissioned as provided in this 36 37 chapter or, upon the operator's written application to the State Department of Geology and Mineral 38 Industries and with the concurrence and approval of the Water Resources Director, jurisdiction over the well may be transferred to the Water Resources Director and, in such case, the well shall no 39 40 longer be subject to the provisions of this chapter but shall be subject to any applicable laws and 41 rules relating to wells drilled for appropriation and use of ground waters. If an application is made to transfer jurisdiction, a copy of all logs, records, histories and descriptions shall be provided to 4243 the Water Resources Director by the applicant.

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"PROSPECT WELLS

1 "SECTION 6. ORS 522.055 is amended to read:

2 "522.055. (1) No person shall engage in drilling a prospect well without first obtaining a permit 3 issued under the authority of the State [Geologist] **Department of Geology and Mineral Industries** 4 and without complying with the conditions of such permit.

"(2) An application to drill prospect wells shall contain such information as the [State Depart-5 ment of Geology and Mineral Industries] department may require, including but not limited to a 6 7 plugging and decommissioning plan, and shall be accompanied by a nonrefundable fee [set by the 8 governing board of the department but not to exceed \$250 to cover all prospect wells included within the application] in the amount determined by the department to be the estimated cost of re-9 10 view of the proposed prospect wells. Each application may include up to five prospect wells 11 in a given project area. The amount of the fee may not exceed \$1,000 per five prospect wells. A permit to drill [shall remain valid for one year from the date it is issued] remains valid 12until it is revoked or modified by the department based on new information or changed 13conditions. 14

"[(3) An unused permit may be extended by the State Geologist for a reasonable period not to exceed one year beyond the initial one-year period, upon receipt of a written request from the permittee before the expiration date of the permit. The request shall be accompanied by a nonrefundable fee set by the board not to exceed \$250.]

19 "[(4)] (3) The permittee shall provide an annual nonrefundable fee [set by the board not to 20 exceed] of \$500 on or before the anniversary of the issuance date of each active permit.

"[(5) All moneys paid to the department under this section shall be deposited with the State
 Treasurer and are continuously appropriated to the department for the administration of chapter 552,
 Oregon Laws 1975.]

24 "(4) A request by a permittee to transfer a permit issued under this section shall be ac-25 companied by a nonrefundable fee of \$500.

26 "(5) All moneys received by the department under this section shall be paid into the State 27 Treasury and deposited in the General Fund to the credit of the Geology and Mineral In-28 dustries Account established by ORS 516.070.

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"SECTION 7. ORS 522.065 is amended to read:

³⁰ "522.065. (1) Upon receipt of [an] **a complete** application to drill prospect wells, the [State ³¹ Geologist] State Department of Geology and Mineral Industries shall circulate copies of the ap-³² plication to the Water Resources [Director] Department, the [Director of the] Department of Envi-³³ ronmental Quality, the [Director of the] Department of Land Conservation and Development[,] and ³⁴ the [Director of the] Department of State Lands. The State Department of Geology and Mineral ³⁵ Industries may circulate copies to other public agencies that may have an interest in the ³⁶ permit application.

37 "(2) Any public agency [desiring to] receiving a copy of the application as provided in sub-38 section (1) of this section may suggest conditions under which a permit should be granted [shall 39 provide such information to the State Department of Geology and Mineral Industries within 15 days 40 of receipt of the copy of the application]. A public agency shall submit any suggested conditions 41 to the State Department of Geology and Mineral Industries within 45 days of the public 42 agency's receipt of the copy of the application. The department shall consider any suggested 43 conditions that a public agency submits to the department within the 45-day period.

"(3) [Except as provided in ORS 522.075, within 30 days of receipt of an application to drill prospect wells, the State Geologist shall grant a permit to drill, subject] A permit issued under this

section is subject to such conditions as the [*State Geologist*] department may impose. Included among the conditions shall be provision for the proper and safe [*abandonment*] plugging and decommissioning of each prospect well. Subject to ORS 522.075, the department shall issue or deny the permit by a written order within 60 days after receipt of a complete application unless the department determines that a longer period is necessary to respond to comments or new information or for other good cause.

⁷ "<u>SECTION 8.</u> In addition to any other liability imposed by law, the operator of a prospect
⁸ well shall be liable to any person or public agency that sustains damages from failure of the
⁹ operator to comply with:

"(1) A condition in a permit requiring the operator to provide for the protection of
 ground water in the area affected by the well; or

12 "(2) Any rules of the governing board of the State Department of Geology and Mineral 13 Industries establishing standards for blowout prevention, equipment and casing design and 14 removal, and any other procedures necessary to shut out detrimental substances from strata 15 containing ground or surface water usable for beneficial purposes.

"<u>SECTION 9.</u> ORS 522.075 is amended to read:

17 "522.075. [(1) No permit for prospect wells shall be granted until the applicant has filed with the 18 State Department of Geology and Mineral Industries a bond or alternative form of financial security 19 acceptable to the department in the sum established by rule by the governing board of the department. 20 The amount of the bond or security shall be a sum of not less than \$10,000 for each hole to be drilled 21 or a blanket bond in the amount of not less than \$50,000 for all prospect wells which are included 22 within the application and to be drilled by the applicant.]

23 "[(2) The bond or alternative form of financial security shall be conditioned upon compliance with 24 the requirements of this chapter and rules adopted and orders issued pursuant to this chapter and shall 25 secure the state against all losses, charges and expenses, including court costs and attorney fees, in-26 curred by it in obtaining such compliance.]

"[(3) With the consent of the department, any bond or acceptable alternative form of financial security submitted as required by this section may be terminated or canceled. However, the department shall not consent to the termination or cancellation of any bond or security until the prospect wells covered by such bond or security have been properly and safely abandoned pursuant to the abandonment plan required by the permit or another bond or security for the prospect wells has been submitted and approved by the department.]

33 "[(4) For those applications concerning prospect wells on federal lands, the department may waive 34 the requirements of subsections (1) to (3) of this section upon receipt of suitable proof of compliance by 35 the applicant with federal bond requirements which would, in the opinion of the department, be un-36 necessarily duplicated by the requirements of this section.]

37 "(1)(a) The State Department of Geology and Mineral Industries may not issue a permit 38 for a prospect well until the applicant has provided a bond or alternative form of financial 39 security as specified in rules adopted by the governing board of the State Department of 40 Geology and Mineral Industries.

"(b) The amount of the bond or alternative form of financial security may not be less
than \$10,000 for each prospect well or not less than \$50,000 for all prospect wells to be drilled.
"(2) The bond or alternative form of financial security must be conditioned upon compliance with the requirements of this chapter and rules adopted and orders issued pursuant to
this chapter and must secure the state against all losses, charges and expenses, including

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court costs and attorney fees, incurred by the state in obtaining such compliance. 1 2 "(3) With the consent of the department, any bond or acceptable alternative form of financial security submitted pursuant to this section may be terminated or canceled. However, 3 4 the department may not consent to the termination or cancellation of any bond or security until each prospect well covered by such bond or security has been properly and safely 5 plugged and decommissioned pursuant to the plan required by the permit or until another 6 7 bond or security for each well has been submitted and approved by the department. "SECTION 10. ORS 522.085 is amended to read: 8 "522.085. Upon completion of all drilling and testing undertaken pursuant to an application to 9 drill prospect wells, the applicant shall file with the State [Geologist] Department of Geology and 10 11 Mineral Industries a report certifying the completion of the [abandonment] plugging and decom**missioning** plan required by the permit. 1213**"GEOTHERMAL WELLS** 14 15 "SECTION 11. ORS 522.115 is amended to read: 16 "522.115. (1) No person shall engage in the drilling or operating of any geothermal well without 1718 first obtaining a permit issued under the authority of the State [Geologist] Department of Geology 19 and Mineral Industries, and without complying with the conditions of such permit. "(2) An application for a permit shall contain: 20 21"(a) The location and elevation of the floor of the proposed derrick. 22"(b) The number or other designation approved by the [State Department of Geology and Mineral 23*Industries*] **department** by which the well shall be known. 24 "(c) The applicant's estimate of the depths to be drilled. 25"(d) The nature and character of the geothermal resource sought. "(e) A reclamation plan for the well pad. 26 27"[(e)] (f) Such other information as the governing board of the State Department of Geology and Mineral Industries by rule may require. 28"(3) An application for a permit shall be accompanied by a nonrefundable fee of \$2,000. [set by 29 30 the board not to exceed \$250.] "[(4) The permittee shall provide an annual nonrefundable fee set by the board not to exceed \$500 31on or before the anniversary of the issuance date of each active permit.] 32"[(5) All fees collected by the department under this section shall be deposited with the State 33 Treasurer and are continuously appropriated to the department for the administration of chapter 552, 3435 Oregon Laws 1975.] 36 (4) The permittee shall provide an annual nonrefundable renewal fee on or before the 37 anniversary of the issuance date of each active permit as follows: 38 "(a) \$1,500 for the first renewal year. 39 "(b) \$500 for each subsequent renewal year. 40 (5) A request by a permittee to modify a permit shall be accompanied by a 41 nonrefundable fee not to exceed \$1,500. "(6) A request by a permittee to transfer a permit issued under this section shall be ac-4243 companied by a nonrefundable fee of \$500. 44 "(7) A request by a permittee to plug and decommission a geothermal well shall be ac-

45 companied by a nonrefundable fee of \$1,000.

1 "(8) All moneys received by the department under this section shall be paid into the State 2 Treasury and deposited in the General Fund to the credit of the Geology and Mineral In-3 dustries Account established by ORS 516.070.

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"SECTION 12. ORS 522.125 is amended to read:

"522.125. (1) Upon receipt of [an] a complete application for a permit to drill or operate a 5 geothermal well, the State Department of Geology and Mineral Industries shall circulate copies of 6 7 the application to the Water Resources [Director] Department, the State Department of Fish and 8 Wildlife [Director], the [Director of the] Department of Environmental Quality, the State Parks and Recreation [Director] Department, the [Director of the] Department of Land Conservation and De-9 velopment, [the Director of] the State Department of Energy, the [Director of the] Department of 10 11 State Lands and the governing body of the county and the geothermal heating district in which the well will be located. The State Department of Geology and Mineral Industries may circulate 1213copies to other public agencies that have an interest in the application.

"(2) Any public agency [desiring to] receiving a copy of the application as provided in subsection (1) of this section may suggest conditions under which a permit should be granted [shall provide such information to the department within 30 days of receipt of the copy of the application]. A public agency shall submit any suggested conditions to the State Department of Geology and Mineral Industries within 45 days of the public agency's receipt of the copy of the application. The department shall consider any suggested conditions that a public agency submits to the department within the 45-day period.

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"<u>SECTION 13.</u> ORS 522.135 is amended to read:

22"522.135. (1) Within [45] 60 days after receipt of [the] a complete application for a permit to 23drill or operate a geothermal well, the State [Geologist] Department of Geology and Mineral Industries shall by order issue[,] or deny[,] the permit unless the department determines that 24 25a longer period is necessary to respond to comments or new information or for other good 26cause. [suspend, modify, revoke or not renew a permit pursuant to this chapter and ORS chapter 183 27except that appeal of any order issued pursuant to this section shall be made to the governing board of the State Department of Geology and Mineral Industries before any appeal under ORS 183.480 is 2829 allowed.]

"[(2) The State Geologist may issue the permit if, after receipt of comments from the agencies referred to in ORS 522.125, the State Geologist determines that issuance thereof would be consistent with the purposes set forth in ORS 468A.010, 468B.015 and 537.525, rules adopted pursuant to ORS 468B.030, and the purposes of this chapter.]

"(2) Except as provided in ORS 522.145, the department shall issue the permit if, after receipt of comments from the agencies referred to in ORS 522.125, the department determines that issuance of the permit would be consistent with the provisions of this chapter and ORS chapters 468A, 468B and 537, any rule adopted under this chapter by the governing board of the State Department of Geology and Mineral Industries, any rule adopted by the Water Resources Commission under ORS chapter 537 and any rule adopted under ORS chapter 468 or 468B by the Environmental Quality Commission.

41 "(3) If the [State Geologist] department issues a permit pursuant to this section, the [State 42 Geologist] department shall impose such conditions as [the State Geologist] the department con-43 siders necessary to carry out the [purposes set forth in ORS 468A.010, 468B.015 and 537.525, rules] 44 provisions of this chapter and ORS chapters 468A, 468B and 537, any rule adopted under this 45 chapter by the governing board of the department, any rule adopted by the Water Resources Commission under ORS chapter 537 and any rule adopted [pursuant to ORS 468B.030, and the purposes of this chapter] under ORS chapter 468 or 468B by the Environmental Quality Commission. The [State Geologist] department shall include in the permit a statement that issuance [thereof] of the permit does not relieve any person from any obligation to [obtain a permit under] comply with ORS [468B.030 or] 468B.035, 468B.050, 468B.195, 537.090 or 537.535 or any other applicable state or federal environmental laws.

"(4) The State Geologist shall incorporate into the permit requirements:

8 "(a) Any conditions made by the Water Resources Director necessary to comply with the pur-9 poses set forth in ORS 537.525; and

"(b) Any conditions made by the Department of Environmental Quality necessary to comply with
the purposes set forth in ORS 468A.010 and 468B.015.

"(5) [A] Drilling, redrilling or deepening [operation] must begin within one year after the date of permit issuance or the permit shall expire. However, the State [Geologist] **Department of Geology and Mineral Industries** may extend the unused permit for a reasonable period not to exceed one year beyond the initial one-year period upon receipt of a written request from the permittee before the expiration date of the permit. The request shall be accompanied by [a] the nonrefundable fee [set by the board not to exceed \$250.] **specified in ORS 522.115.**

18 "[(6) Nothing in chapter 552, Oregon Laws 1975, shall be construed to excuse an operator of a 19 geothermal well from complying with the provisions of the Federal Water Pollution Control Act 20 amendments of 1972 (Public Law 92-500) or ORS 468B.035 or to dilute the authority of the Department 21 of Environmental Quality to issue National Pollution Discharge Elimination Systems Permits.]

"[(7) All fees collected by the department under this section shall be deposited with the State
Treasurer and are continuously appropriated to the department for the administration of chapter 552,
Oregon Laws 1975.]

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"SECTION 14. ORS 522.145 is amended to read:

26 "522.145. [(1) Except as waived by rule of the governing board of the State Department of Geology
27 and Mineral Industries, no permit shall be granted until:]

28 "[(a) The applicant has filed with the department a bond or security acceptable to the department 29 in the sum established by rule by the board. The amount of the bond or security shall be a sum of not 20 less than \$25,000 for each well to be drilled; or]

31 "[(b) The applicant to drill more than one geothermal well has filed with the department a bond 32 or acceptable alternative form of financial security in the sum established by rule by the board. The 33 amount of the bond or security shall be a sum of not less than \$150,000 for all wells to be drilled.]

34 "[(2) The bond or acceptable alternative form of financial security shall be conditioned upon com-35 pliance with the requirements of this chapter and rules adopted and orders issued pursuant to this 36 chapter and shall secure the state against all losses, charges and expenses, including court costs and 37 attorney fees, incurred by it in obtaining such compliance.]

38 "[(3) With the consent of the department, any bond or acceptable alternative form of financial se-39 curity acceptable to the department submitted as required by this section may be terminated or canceled. 40 However, the department shall not consent to the termination or cancellation of any bond or security 41 until each geothermal well covered by such bond or security has been:]

42 "[(a) Lawfully abandoned as a dry hole; or]

43 "[(b) Properly completed, has ceased production and been lawfully abandoned.]

44 "[(4) For those applications concerning geothermal wells on federal lands, the department may 45 waive the requirements of subsections (1) to (3) of this section upon receipt of suitable proof of compli-

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ance by the applicant with federal bond requirements which would, in the opinion of the department,
 be unnecessarily duplicated by the requirements of this section.]

"(1)(a) The State Department of Geology and Mineral Industries may not issue a permit for a geothermal well until the applicant has provided a bond or alternative form of financial security as specified in rules adopted by the governing board of the State Department of Geology and Mineral Industries.

"(b) The amount of the bond or alternative form of financial security may not be less
than \$25,000 for each well or not less than \$150,000 for all wells to be drilled.

9 "(2) The bond or alternative form of financial security must be conditioned upon compli-10 ance with the requirements of this chapter and rules adopted and orders issued pursuant to 11 this chapter and must secure the state against all losses, charges and expenses, including 12 court costs and attorney fees, incurred by the state in obtaining such compliance.

"(3) With the consent of the department, any bond or acceptable alternative form of financial security submitted pursuant to this section may be terminated or canceled. However, the department may not consent to the termination or cancellation of any bond or security until each geothermal well covered by such bond or security has been properly and safely plugged and decommissioned pursuant to the plan required by the permit or until another bond or security for each well has been submitted and approved by the department.

19 **"SEC**"

"SECTION 15. ORS 522.155 is amended to read:

20 "522.155. [(1)] In addition to any other liability [of] **imposed by law**, the operator of a 21 geothermal well[, *the operator*] shall be liable to any person or public agency that sustains damages 22 from failure of the operator to comply with:

"(1) A condition in a permit requiring the operator to provide for the protection of ground water
in the area affected by the well[.]; or

25 "(2) Any rules of the governing board of the State Department of Geology and Mineral Indus-26 tries [*shall adopt by rule*] establishing standards for blowout prevention, equipment and casing de-27 sign and removal, and any other procedures necessary to shut out detrimental substances from 28 strata containing ground or surface water usable for beneficial purposes.

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"<u>SECTION 16.</u> ORS 522.165 is amended to read:

30 "522.165. (1) A permittee must make a request to modify a permit before changing the lo-31 cation, number or designation specified for any geothermal well or before undertaking to alter in 32 any manner the casing of a geothermal well. [in a permit issued pursuant to ORS 522.135 shall 33 not be changed without first obtaining written consent from the State Department of Geology and 34 Mineral Industries.]

"[(2) No operator shall alter in any manner the casing of a geothermal well without notifying the
 department and obtaining its approval.]

"(2) A request to modify a permit under this section, except for changes to a well name,
 shall be accompanied by the nonrefundable fee specified in ORS 522.115.

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"SECTION 17. ORS 522.175 is amended to read:

"522.175. (1) No person shall abandon a geothermal well without first [obtaining approval of]
plugging and decommissioning the well in conformance with a plugging and decommissioning
plan approved by the State Department of Geology and Mineral Industries and complying with
the provisions of ORS 522.245.

44 "(2) [A geothermal well shall be considered lawfully abandoned when the operator has conformed 45 to ORS 522.245 and to rules adopted by] The governing board of the department shall adopt rules 1 designed to:

2 "(a) Protect underground and surface water usable for beneficial purposes from pollution re-3 sulting from infiltration or addition of any [deleterious] detrimental substance;

4 "(b) Prevent the escape of all fluids to the surface;

"(c) Close the surface aperture of the well; and

6 "(d) Remove all surface equipment except that necessary to maintain permanent closure of the 7 well.

8 "[(3) When the operator has violated subsection (1) or (2) of this section or ORS 522.225, or when 9 the department has issued a written disapproval of abandonment, the board may proceed against the 10 operator and surety of the operator as provided for in ORS 522.145 and may bring suit pursuant to 11 ORS 522.810.]

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"SECTION 18. ORS 522.205 is amended to read:

"522.205. (1) Except as excluded from the provisions of this section by rule of the governing board of the State Department of Geology and Mineral Industries, any prospective operator of a geothermal well shall notify the department in such form as the department may direct of the purchase, assignment, transfer, conveyance or exchange of [*such*] **the** well within [*15*] **45** days of the purchase and shall accompany such notice with an application for transfer of the permit for the particular well. The **application must include the transfer** fee [*for transfer of a permit is \$25*] **specified in ORS 522.115**.

"(2) Any buyer of land on which a geothermal well is located shall notify the department of the
purchase, assignment, transfer, conveyance or exchange of the land upon which such well is situated
within [15] 45 days of such purchase.

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"<u>SECTION 19.</u> ORS 522.215 is amended to read:

24 "522.215. (1) No operator shall suspend drilling or operation of a geothermal well without ob-25 taining permission from the State Department of Geology and Mineral Industries.

26 "(2) The department may authorize an operator to suspend for a specific period operations or 27 remove equipment from an uncompleted geothermal well upon such terms as the department may 28 specify, upon written application of the operator and an affidavit showing good cause therefor.

"(3) Within a period of six months from the ending date specified for such suspension, the operator may make written application for an extension of suspension[,] and file it with an affidavit showing good cause for such an extension. Upon a finding that the extension is merited, the governing board of the department may extend the suspension for an additional specific period.

33 "(4) If, after suspension, operations are not resumed by the operator within six months from the 34 ending date specified for the suspension or extension thereof, an intention to abandon and unlawful 35 abandonment shall be presumed.

36 "(5) Whenever an operator whose operations have been suspended fails to comply with such 37 terms as the department may specify in its authorization, the geothermal well shall be presumed 38 unlawfully abandoned. A well shall also be deemed unlawfully abandoned, if, without notice to the 39 department, any drilling or producing equipment is removed.

40 "(6) An unlawful abandonment shall be declared by order of the board, and written notice 41 thereof shall be mailed by registered mail or by certified mail with return receipt both to such op-42 erator at the last-known post-office address of the operator, to the registered agent of the operator, 43 if any, and to the operator's sureties.

44 "(7) After declaration of unlawful abandonment, the board may proceed against the operator and 45 the surety of the operator as provided for in ORS 522.145 and may bring suit pursuant to ORS 1 522.810 or take any other enforcement or recovery action authorized by law.

"SECTION 20. ORS 522.225 is amended to read:

3 "522.225. (1) Before commencing any operation to [*abandon*] **discontinue the use of** a 4 geothermal well, the operator shall give notice to the State Department of Geology and Mineral 5 Industries of the intention to [*abandon*] **plug and decommission** the well and the date upon which 6 the work [*of abandonment*] will begin.

"(2) Such notice shall be given at least 24 hours before the commencement of [abandonment]
plugging and decommissioning operations and shall indicate:

9 "(a) The condition of the well;

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"(b) The proposed method of the [*abandonment*] **plugging and decommissioning** operation; and
"(c) Any additional information that may be required by the department.

12 "SECTION 21. ORS 522.245 is amended to read:

13 "522.245. (1) A representative of the State Department of Geology and Mineral Industries may 14 be present during any [*abandonment*] operation **to plug and decommission a geothermal well**. If 15 the representative determines that the [*abandonment*] **plugging and decommissioning** is satisfac-16 tory, the representative shall approve the [*abandonment*] **plugging and decommissioning** of the 17 well.

"(2) Within [30] **45** days after the completion of [*abandonment*] **the plugging and decommissioning** of any geothermal well, the operator of the well shall make a written report of all work done [*with respect to the abandonment*]. Within [10] **45** days after the receipt of [*such*] **the** report, the department shall furnish the operator with a written final approval [*of abandonment*,] **of the plugging and decommissioning** or a written disapproval [*of abandonment*] setting forth the conditions upon which the disapproval is based.

"(3) Failure to [abandon] **plug and decommission** in accordance with the approved method [of abandonment], failure to submit to the department any notice or report required by this chapter[,] or failure to furnish the department with any required information shall constitute sufficient grounds for disapproval of the **plugging and decommissioning and shall constitute unlawful** abandonment of [such] **the** well.

29 "(4) When the department has issued a written disapproval of [*abandonment*] the plugging and 30 decommissioning, the governing board of the department may proceed against the operator and the 31 surety of the operator as provided for in ORS 522.145 [*or*] and may bring suit pursuant to ORS 32 522.810 or take any other enforcement or recovery action authorized by law.

"SECTION 22. ORS 522.355 is amended to read:

34 "522.355. (1) The operator of any geothermal well shall keep, or cause to be kept, a careful and 35 accurate log, core record and history of the drilling of the well.

"(2) The log referred to in subsection (1) of this section shall show the character and depth of each formation encountered in the drilling of the well; the amount, size and weight of casing used; and the location, depth and temperature of water-bearing strata, including the temperature, chemical composition and other chemical and physical characteristics of fluid encountered from time to time, so far as determined.

41 "(3) The core record referred to in subsection (1) of this section shall show the depth, character
42 and fluid content of cores obtained, so far as determined from the study and analysis thereof.

43 "(4) The history referred to in subsection (1) of this section shall show the location and amount 44 of sidetracked casings, tools or other material; the depth and quantity of cement in cement plugs; 45 the shots of dynamite or other explosives used; the results of production and other tests during

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1 drilling operations; and completion data.

"(5) The log referred to in subsections (1) and (2) of this section shall be kept in the local office of the operator and, together with the tour reports of the operator, shall be subject, during business hours, to inspection by the governing board of the State Department of Geology and Mineral Industries, or the department.

6 "(6) The operator of any geothermal well shall, in addition to furnishing the log, records, and 7 tests required by this section, collect representative drill cuttings. The operator shall additionally, 8 in the event cores are taken, collect representative core samples. The drill cuttings and core sam-9 ples shall be filed with the department promptly upon completion or upon its written request, and 10 upon [*the abandonment*] **plugging and decommissioning** or upon suspension of operations for a pe-11 riod of at least six months.

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"SECTION 23. ORS 522.365 is amended to read:

"522.365. (1) Each operator of any geothermal well or the designated agent of the operator shall file with the State Department of Geology and Mineral Industries a copy of the log, history and core record, or any portion thereof, promptly upon completion, or upon the written request of the department at any time after the commencement of the work of drilling any geothermal well, and upon [*the abandonment*] **plugging and decommissioning** or upon suspension of operations for a period of at least six months.

"(2) For a period of four years after the receipt of any log, history, core record, or any portion thereof, such record shall be exempt from disclosure as a trade secret pursuant to ORS 192.501 unless the operator gives approval to release the data.

22 "SECTION 24. ORS 522.915 is amended to read:

23 "522.915. No person shall:

"(1) Make or cause to be made any false entry or statement in a report, record, log, account or other writing required by this chapter or any rule adopted pursuant thereto;

26 "(2) Omit or cause to be omitted from any such report, record, log, account or writing, full, true 27 and correct entries as required by this chapter or any rule or order adopted pursuant thereto;

28 "(3) Destroy, mutilate, alter or falsify any such report, record, log, account or writing; or

"(4) Remove from this state the original copy of any such report, record, log, account or writing
before [an abandonment] the plugging and decommissioning of a geothermal well has been approved pursuant to ORS 522.245 (2).

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"RULES

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"SECTION 25. ORS 522.305 is amended to read:

"522.305. [In accordance with applicable provisions of ORS chapter 183, the governing board of the
 State Department of Geology and Mineral Industries may make reasonable rules necessary for the ad ministration of this chapter.]

39 "(1) In accordance with the applicable provisions of ORS chapter 183, the governing board 40 of the State Department of Geology and Mineral Industries may adopt rules necessary to 41 implement the provisions of this chapter. This authority includes, but is not limited to, rules 42 relating to:

43 "(a) Establishing procedures for the issuance, modification, transfer, denial, suspension
 44 and revocation of permits;

45 "(b) Establishing procedures for enforcing permit conditions, for enforcing the require-

1 ments of this chapter and for enforcing rules adopted to implement the provisions of this 2 chapter; and

"(c) Establishing civil penalties for violations of this chapter, for violations of rules
adopted to implement the provisions of this chapter and for violations of permits and orders
issued pursuant to this chapter.

6 "(2) Any final determination made by the State Department of Geology and Mineral In-7 dustries in carrying out the provisions of this chapter or in rules adopted thereunder may 8 be reviewed in the manner provided by the applicable provisions of ORS chapter 183.

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"MISCELLANEOUS

"SECTION 26. The unit captions used in this 2009 Act are provided only for the conven ience of the reader and do not become part of the statutory law of this state or express any
 legislative intent in the enactment of this 2009 Act.

15 "SECTION 27. ORS 522.235 is repealed.

16 "SECTION 28. Section 8 of this 2009 Act is added to and made a part of ORS chapter 522.
17 "SECTION 29. Except as provided in section 30 of this 2009 Act, the repeal of ORS 522.235
18 by section 27 of this 2009 Act, section 8 of this 2009 Act and the amendments to ORS 522.005,
19 522.015, 522.019, 522.025, 522.045, 522.055, 522.065, 522.075, 522.085, 522.115, 522.125, 522.135,
20 522.145, 522.155, 522.165, 522.175, 522.205, 522.215, 522.225, 522.245, 522.305, 522.365 and
21 522.915 by sections 1 to 7 and 9 to 25 of this 2009 Act become operative July 1, 2009.

"SECTION 30. The governing board of the State Department of Geology and Mineral Industries may adopt rules before the operative date specified in section 29 of this 2009 Act or
take any action before that date that is necessary to carry out the repeal of ORS 522.235 by
section 27 of this 2009 Act, section 8 of this 2009 Act and the amendments to ORS 522.005,
522.015, 522.019, 522.025, 522.045, 522.055, 522.065, 522.075, 522.085, 522.115, 522.125, 522.135,
522.145, 522.155, 522.165, 522.175, 522.205, 522.215, 522.225, 522.245, 522.305, 522.365 and
522.915 by sections 1 to 7 and 9 to 25 of this 2009 Act.

29 "<u>SECTION 31.</u> (1) Section 8 of this 2009 Act, the amendments to ORS 522.005, 522.015,
30 522.019, 522.025, 522.045, 522.055, 522.065, 522.075, 522.085, 522.115, 522.125, 522.135, 522.145,
31 522.155, 522.165, 522.175, 522.205, 522.215, 522.225, 522.245, 522.305, 522.355, 522.365 and 522.915
32 by sections 1 to 7 and 9 to 25 of this 2009 Act and the repeal of ORS 522.235 by section 27 of
33 this 2009 Act apply to all prospect wells and geothermal wells for which a permit has been
34 issued before, on or after the effective date of this 2009 Act.

35 "(2) Notwithstanding subsection (1) of this section, the amendments to ORS 522.055, 36 522.115 and 522.205 by sections 6, 11 and 18 of this 2009 Act related to fees apply only to 37 prospect wells and geothermal wells for which a permit has been issued on or after the ef-38 fective date of this 2009 Act.

"<u>SECTION 32.</u> This 2009 Act being necessary for the immediate preservation of the public
 peace, health and safety, an emergency is declared to exist, and this 2009 Act takes effect
 on its passage.".

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