California Water Boards

Gavin Newsom
Governor

Yana Garcia
Secretary for
Environmental Protection

State Water Resources Control Board

August 10, 2026

Doug Ito, State Oil & Gas Supervisor
Department of Conservation
Division of Oil, Gas & Geothermal Resources
715 P Street, MS 1803
Sacramento, CA 95814
Douglas.Ito@conservation.ca.gov

FINAL CONCURRENCE ON THE AQUIFER EXEMPTION PROPOSAL, OIL-BEARING PORTIONS OF THE KERN RIVER AND UPPER CHANAC FORMATIONS BELOW THE 'C' (CAPPING) SILT, KERN RIVER OIL FIELD, KERN COUNTY

Dear Mr. Ito:

State Water Resources Control Board (State Water Board) staff, in consultation with Central Valley Regional Water Quality Control Board staff (collectively Water Boards staff), reviewed the revised aquifer exemption proposal dated March 26, 2025 provided by the California Geologic Energy Management Division (CalGEM) on April 4, 2025 to expand the aquifer exemption for oil-bearing portions of the Kern River and Chanac Formations below the 'C' (Capping) Silt (C-Silt) in the Kern River Oil Field for Class II injection. The original aquifer exemption proposal was revised multiple times since 2017 to address potential conduit wells (PCWs) identified during the review.

As described in the attached memorandum, Water Boards staff assessed whether the proposal meets the criteria set forth in California Public Resources Code (PRC) section (§) 3131 and § 146.4 of Title 40 of the Code of Federal Regulations (CFR). Based on this review, State Water Board staff concur with the Kern River Aquifer Exemption proposal.

Public Comment Process

On May 14, 2025, State Water Board staff preliminarily concurred with the exemption proposal pending the State's public comment process. On November 6, 2025, CalGEM published notice of the exemption proposal and opened a public comment period. CalGEM and State Water Board staff held a joint public meeting in Bakersfield, California to receive oral comments on the exemption proposal on December 9, 2025. The written comment period closed on December 22, 2025. CalGEM and State Water Board staff reviewed and responded in writing to the comments received during the comment period and public hearing.

Consistent with PRC § 3131(c), State Water Board staff submitted a report to the State Water Board evaluating the exemption proposal's consistency with the criteria set forth in PRC § 3131(a), including an analysis of all potential conduits. The report consists of:

- The State Water Board's Preliminary Concurrence Letter, which includes an analysis of all potential conduits;
- CalGEM's Statement of Basis for the Proposed Expansion of the Aquifer Exemption for the Kern River and upper Chanac Formations, Kern River Oil Field;
- The Kern River Oil Field aquifer exemption application; and
- Joint responses to comments by CalGEM and the State Water Board to comments received during the joint public hearing and comment period that concluded in December 2025.

The State Water Board made these materials available to the public and opened a 45-day public comment period on March 6, 2026. The public comment period ended on April 20, 2026. The State Water Board considered the aquifer exemption proposal in a public meeting on June 16, 2026, determined that the exemption proposal, with the limitations and potential conditions noted below, complies with the requirements specified in PRC § 3131(a), and directed State Water Board staff to issue this final concurrence letter in accordance with State Water Resources Control Board Resolution No. 2026-0022.

Limitations on Underground Injection Control (UIC) Projects

To ensure that injected fluids do not affect the quality of water that is, or may reasonably be, used for any beneficial use, the following limitations shall be incorporated as conditions into UIC project approvals:

- Injected fluids must be of similar or better quality than the existing groundwater in the proposed exempted area as determined by Water Boards staff, using methods such as chemical analyses of injectate samples and groundwater samples from the exempted area; and

- The volume of fluid injected in the Kern River and Chanac Formations, including existing exempted areas, may not exceed the volume of fluid extracted as measured over a five-year period. Operators with injection activities in the Kern River and Chanac Formations will collectively provide an annual report to the Water Boards and CalGEM on fluid balance data (comparing injection and extraction volumes) for the preceding five years. If injection or production wells are screened across the Kern River and Chanac Formations and another formation(s), operators will specify the volume of fluid injected into and extracted from the Kern River and Chanac Formations and provide the basis (e.g., data, calculations) for this determination.

Conditions on Injection Projects

Approval of Class II UIC projects involves a joint review by CalGEM and Water Boards staff. CalGEM and Water Boards staff will consider incorporating conditions into approvals of Class II injection projects. Potential conditions include, but are not limited to, requiring monitoring to validate that injected fluids remain in the exempted area. In addition, for any injection project within one-quarter mile of a water supply well, Water Boards staff may seek the inclusion of a requirement to monitor for all chemical compounds and elements that constitute the chemicals and additives used in petroleum exploration, production, treatment, and injection where there are Environmental Laboratory Accreditation Program (ELAP)-approved analyses. If a monitoring requirement is incorporated in a UIC project approval, the operator must submit a work plan to the Central Valley Regional Water Quality Control Board for approval.

If you have any questions regarding this matter, please contact Mr. Eric Morita at (916) 341-5679 or eric.morita@waterboards.ca.gov.

Sincerely,

Karen Mogus
Chief Deputy Director

cc: Patrick Pulupa
Executive Officer
Central Valley Regional Water Quality Control Board
patrick.pulupa@waterboards.ca.gov

Chris Jones
Deputy, Inland District
Department of Conservation
Division of Oil, Gas & Geothermal Resources
Chris.Jones@conservation.ca.gov

Attachment

CALIFORNIA Water Boards

Gavin Newsom
GOVERNOR

Yana Garcia
SECRETARY FOR ENVIRONMENTAL PROTECTION

State Water Resources Control Board

TO: Karen Mogus
Chief Deputy Director

FROM: Eric Morita
Supervising Engineering Geologist

DATE: August 10, 2026

SUBJECT: **FINAL CONCURRENCE ON THE AQUIFER EXEMPTION PROPOSAL, OIL-BEARING PORTIONS OF THE KERN RIVER AND UPPER CHANAC FORMATIONS BELOW THE 'C' (CAPPING) SILT, KERN RIVER OIL FIELD, KERN COUNTY**

On January 16, 2017, the California Geologic Energy Management Division (CalGEM) provided the State Water Resources Control Board (State Water Board) with a proposal to expand the aquifer exemption for the Kern River Formation of the Kern River Oil Field for Class II injection. On September 28, 2020, CalGEM provided a revised proposal to also include oil-bearing portions of the Chanac Formation. On March 27, 2025, Chevron U.S.A. (Operator) provided CalGEM an additional revised proposal dated March 26, 2025 (Revised Proposal) which included updated aquifer exemption boundaries and a conduit analysis. CalGEM submitted the Revised Proposal to the State Water Board on April 4, 2025.

State Water Board staff, in consultation with Central Valley Regional Water Quality Control Board staff (collectively Water Boards staff), reviewed the Revised Proposal, which was signed and stamped by a California-licensed professional geologist. Following the public comment process, State Water Board staff concur with the proposal for the oil-bearing portions of the Kern River and Upper Chanac Formations below the 'C' (Capping) Silt (C-Silt). It is our understanding that in areas where the C-Silt is 50 feet or less from the surface, fluids will be injected at least 150 feet below ground surface to provide a greater safety factor in the prevention of surface expressions and ease of administrative compliance. Water Boards staff have determined that the Revised Proposal meets the criteria set forth in California Public Resources Code (PRC) section (§) 3131 and § 146.4 of Title 40 of the Code of Federal Regulations (CFR), as outlined below.

State and Federal Exemption Criteria

As required by PRC § 3131(a)(1) and 40 CFR § 146.4(a) the proposed exempted area does not currently serve as a source of drinking water. No drinking water supply wells were identified as being completed within the proposed exempted aquifer. Sixty-seven (67) drinking water wells were identified to be completed in the Kern River Formation within approximately one mile of the proposed exempted area. Capture zone analyses were performed on all 67 wells, as documented in CalGEM's March 22, 2019 Memorandum titled *Water Well Capture Radius Analysis Update, Kern River Aquifer Exemption*. These analyses resulted in a reduction to the proposed exempted aquifer boundary as documented in CalGEM's May 29, 2019 memorandum titled *Supplemental Maps to the March 22, 2019 Kern River Aquifer Exemption, Water Well Capture Analysis Memo*.

Consistent with 40 CFR § 146.4(b)(1), the proposed exempted area cannot now, and will not in the future, serve as a source of drinking water because it is hydrocarbon producing. In addition, as per PRC § 3131(a)(2), the injected fluids are not expected to affect the quality of water that is, or may reasonably be, used for any beneficial use because (1) groundwater contained in the proposed exempted area contains petroleum hydrocarbons, (2) injected fluids will be of similar or better quality than the existing groundwater in the proposed exempted area, and (3) the injected fluids are expected to remain in the proposed exempted area. Water analyses from the Kern River Oil Field indicate that groundwater in the Kern River Formation contains concentrations of total dissolved solids between 187 to 1,380 milligrams per liter (mg/L).

The requirement of PRC § 3131(a)(3) is also satisfied because the injected fluids are expected to remain in the proposed exempted area due to a combination of geologic conditions and operational controls. Vertical containment for the top of the Kern River Formation is provided by the overlying low permeability C-Silt (Figures 2 and 3). Vertical containment for the Upper Chanac is provided by overlying oil production activities, which create an upward gradient toward the production wells completed within the proposed and currently exempted areas. Lateral containment in the proposed exempted area is provided by a production-induced inward hydraulic gradient.

Conduit Analysis

Consistent with PRC § 3131(c), a conduit analysis review was conducted to evaluate the potential for fluid to migrate outside of the proposed aquifer exemption area into overlying beneficial use aquifers. This review evaluated all idle and plugged and abandoned wells within the proposed aquifer exemption area to ensure that injected fluid will remain in the portion of the aquifer that would be exempted. In December 2021, the Operator submitted wellbore diagrams and well integrity information to CalGEM and Water Boards staff for all idle and abandoned wells located in the proposed aquifer exemption area. Water Board and CalGEM staff identified 24 potential conduit wells. The Operator submitted mitigation strategies in 2022 and 2024 and after revisions to the

proposed aquifer exemption boundary, seven potential conduit wells remained within the boundary (Figure 4). All seven potential conduit wells were plugged and abandoned in 2023 and verified by wellbore diagrams. No monitoring plan is required.

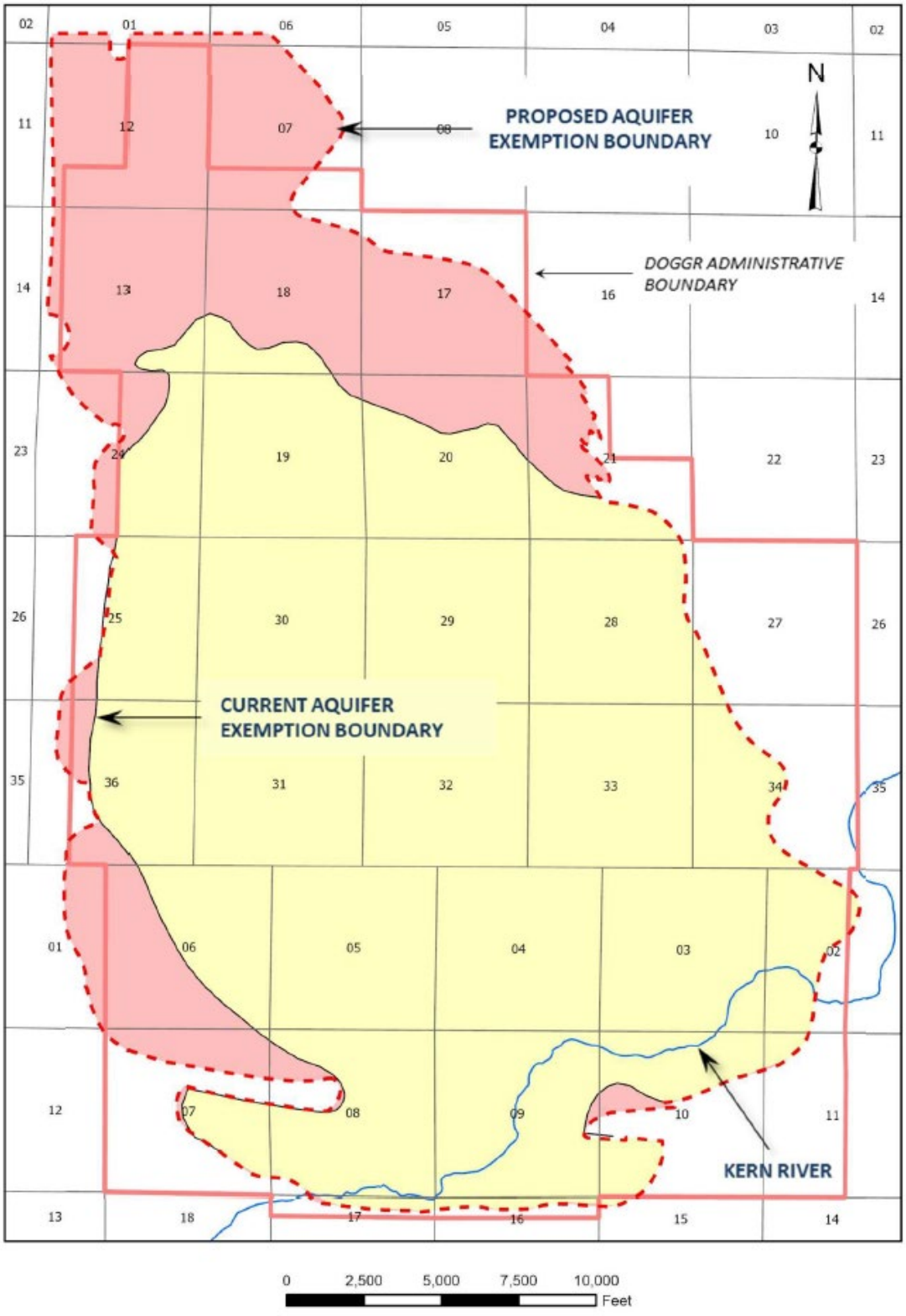

Figure 1. Proposed Kern River Aquifer Exemption Boundary

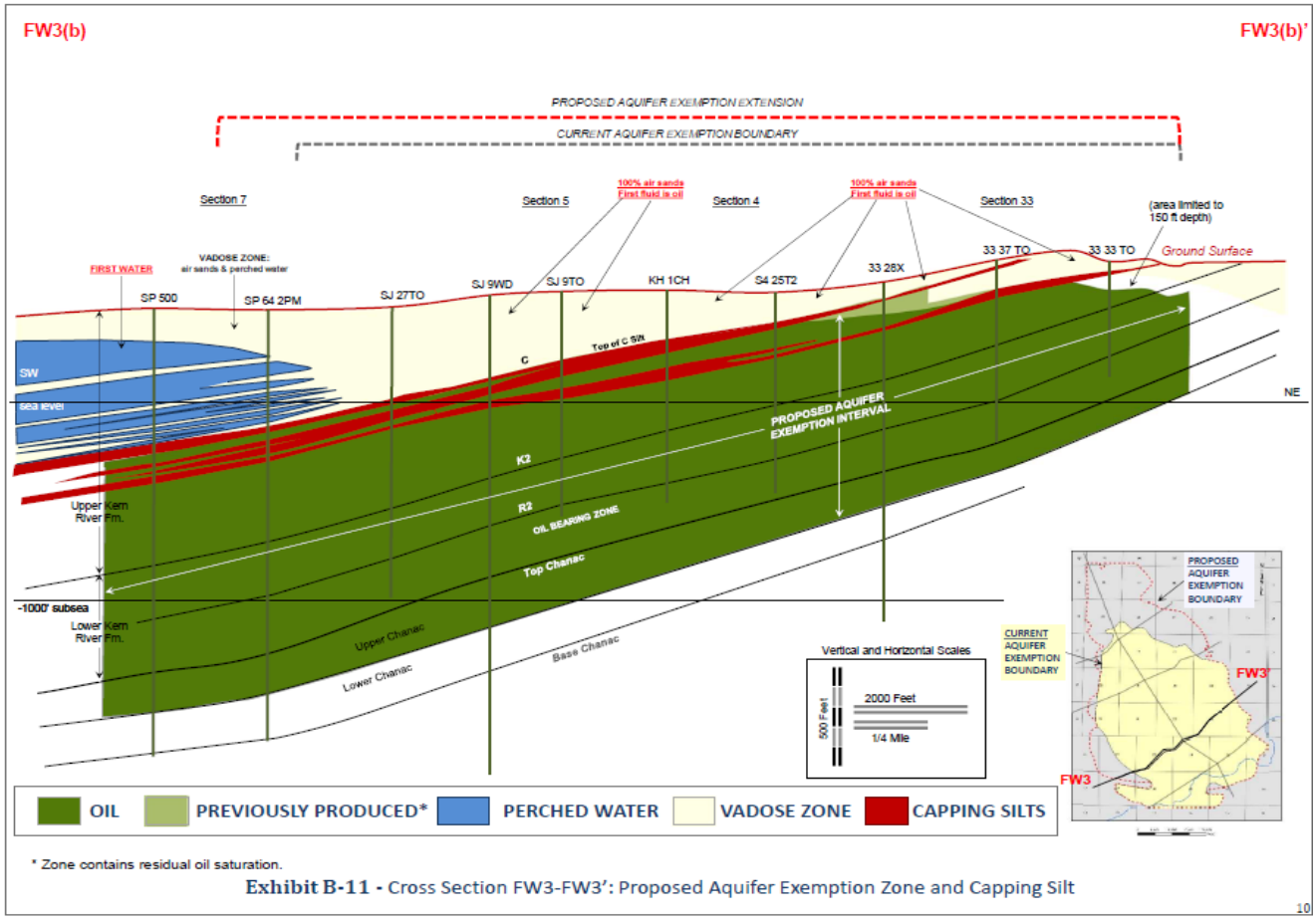

Figure 2. Cross-section FW3-FW3', Exhibit B-11 of the Aquifer Exemption Application, Kern River Oil Field, Kern County, California, March 26, 2025

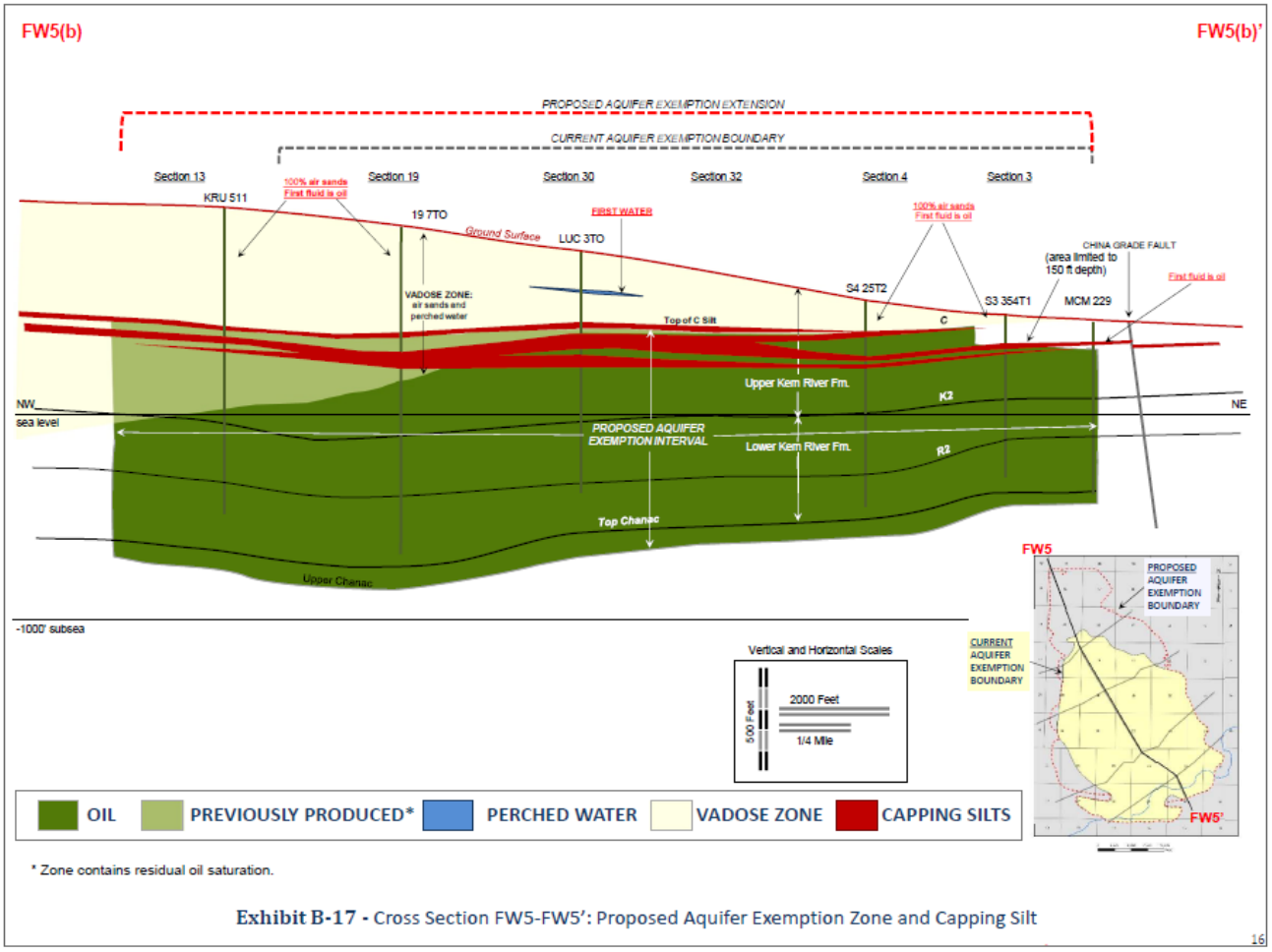

Figure 3. Cross-section FW5-FW5', Exhibit B-17 Aquifer Exemption Application, Kern River Oil Field, Kern County, California, March 26, 2025

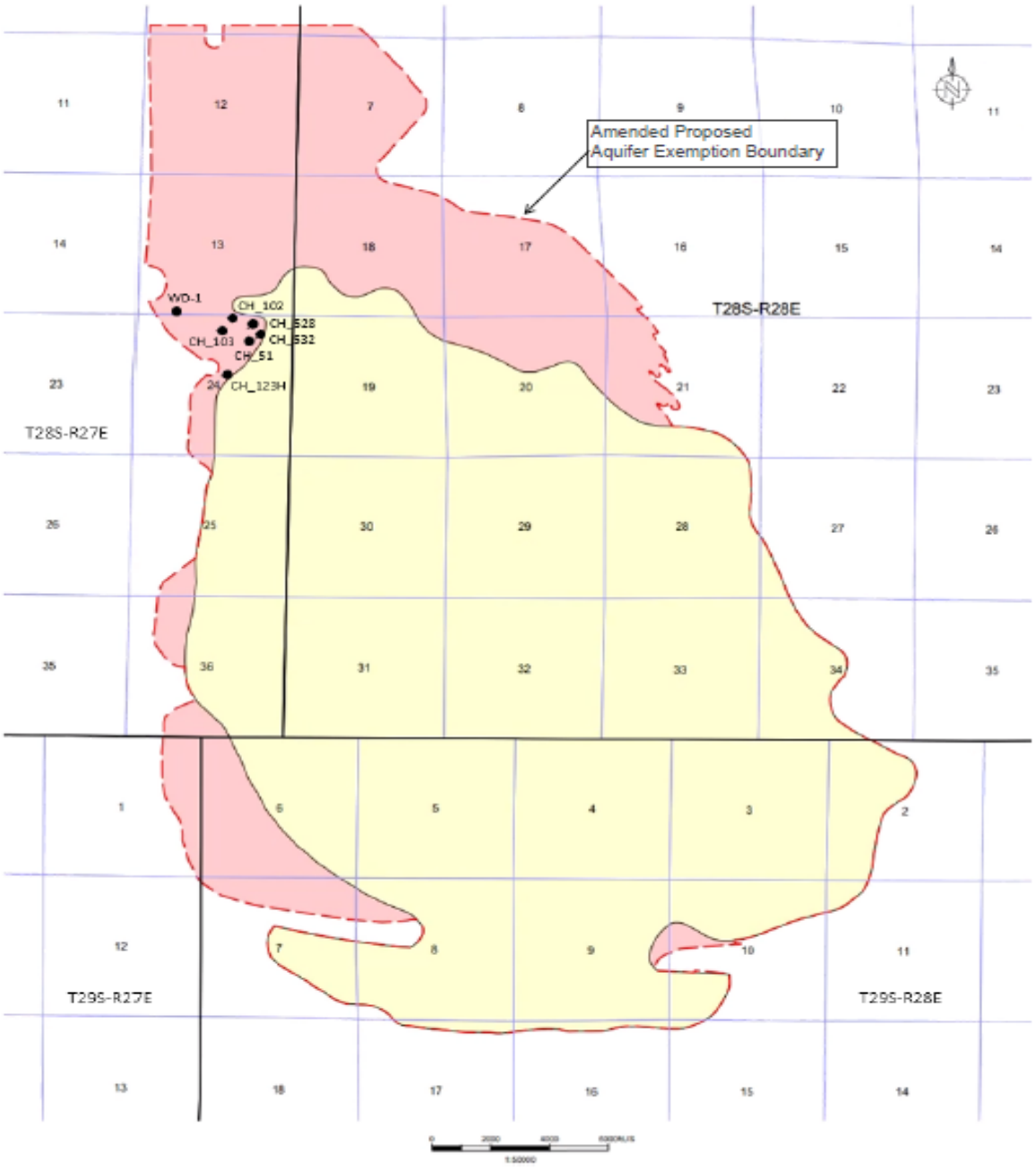

Figure 4. Potential Conduit Wells Located in the Proposed Aquifer Exemption Area