

REQUIREMENTS FOR IDLE WELL TESTING AND MANAGEMENT

PUBLIC COMMENT SUMMARY AND RESPONSE

**45-day Public Comment Period:
July 27, 2018 – September 13, 2018**

**Public Comment Hearings:
Bakersfield – September 12, 2018
Los Angeles – September 13, 2018**

The following comments, objections, and recommendations were made regarding the proposed Requirements for Idle Well Testing and Management rulemaking action during a public comment period beginning July 27, 2018 and ending September 13, 2018. During that public comment period, two public comment hearings were conducted, one in Bakersfield on September 12, and one in Los Angeles on September 13.

Over the course of the public comment period, the Division received a number of public comments via email, regular mail, public comment hearing, and fax. These comments ranged from detailed comments on the proposed requirements to general concerns about groundwater protection.

To facilitate the process of reviewing and responding to comments, the Division assigned to each comment a unique numerical signifier. This signifier consists of three components: first, a unique code number assigned to each commenter; second, a separating hyphen; third, a sequential number assigned to each comment from the identified commenter. The chart below lists the code number for each commenter. Within this document, you will find either grouped or individual numerical signifiers, followed by a summary or specific comment, followed by a response (*italicized*).

Commenters

Number	Name and/or Entity
0001	California Independent Petroleum Association
0002	E&B Natural Resources
0003	State Building and Construction Trades Council of California
0004	Signal Hill Petroleum
0005	California Resources Corporation
0006	Natural Resources Defense Council
0007	Macpherson Oil Company
0008	Sentinel Peak Resources
0009	Pacific Gas and Electric Company
0010	Chevron

0011	Independent Storage Providers
0012	Western States Petroleum Association
0013	Southern California Gas Company
0014	Aera Energy
0015	Josh Yurkanin

Numeric codes at the beginning of each comment summary can be used to locate the summarized comment in the marked-up version of the written comment submission or transcript of public hearing.

Acronyms

Division	Department of Conservation, Division of Oil, Gas, and Geothermal
DOGGR	Department of Conservation, Division of Oil, Gas, and Geothermal
USDW	Underground Source of Drinking Water
PRC	Public Resources Code
US EPA	United States Environmental Protection Agency

General

<p>0001-13</p> <p>The Division must consider the total impacts of all regulations under consideration by the Division and other agencies. While production continues to hit record high numbers in other states, production in California continues to decline. Replacing more in-state production with foreign production hurts Californians and does little to help achieve the state’s aggressive global climate goals.</p>
<p><i>Response to Comment 0001-13: ACCEPTED IN PART. The Division considered, analyzed, and estimated the impacts of the regulations including the costs of compliance. The Division appreciates the financial burden being placed on operators from the proposed idle well and underground injection control regulations, but the Division has done its best to balance the need for management of idle wells with the need to keep cost burden to operators low. The regulations are consistent with the statutory mandates imposed by the PRC. Whenever possible, the Division has worked to ensure that wells subject to one set of regulations are not subject to duplicative requirements under another set of regulations.</i></p> <p><i>These regulations are intended to reduce the risks that are associated with idle wells in the State. Proactive testing and monitoring of idle wells will help both operators and the Division identify problems with wells early and limit the risks that an idle well may pose to the environment. Since 2000, the number of idle wells in the State has remained steady, oscillating between 19,000 to 23,000 idle wells even as oil prices fluctuated. In addition to being potential conduits for contamination, idle wells are a potentially significant liability to the State. California’s oil production has been on the decline since 1985, it is difficult to say what, if any, further decline in production will be attributable to compliance costs associated with these regulations. However, the resultant environmental and public health benefits and the increased safety to communities that contain a substantial number of idle wells should also induce economic benefits and reduce any potential liability to the State.</i></p>
<p>0003-1, 0003-2</p>

The new regulations must provide for more predictable and efficient permitting to promote capital investment and industrial jobs in California, while continuing to safeguard communities, workers, and the environment. The regulations should create a predictable permitting process, where previous Division approvals can be relied upon and permit applications can be promptly evaluated without unnecessary duplication and delay. Delays and unpredictability in the permitting process prevent operators from working. Operators need to be able to rely on a system that supports the investment they put into the oil and gas fields of California.

Response to Comments 0003-1 and 0003-2: NOT ACCEPTED. The Division cannot set deadlines for the permitting process because doing so may truncate the timeframe for proper analysis and possibly compromise the safety and protection of life, health, property and natural resources. While the permitting process and permit applications are outside the scope of this rulemaking, the Division has made efforts to increase efficiencies in the permitting process. These efforts include:

- Creating a comprehensive checklist of data operators must provide to reduce iterative data requests from the Division and the Water Boards.*
- Revising a Memorandum of Agreement with the Water Boards to better clarify regulatory roles and provide a better estimate of permitting timelines.*
- Posting and continually updating the status of pending projects on the Division's website to improve transparency in the permitting process.*
- Allowing operators to submit project applications online through WellSTAR.*

0007-10

The commenter suggests that if the term "life, health, property, and natural resources" is used in the regulations, the term should be amended to read: "Encourages the wise development of oil and gas resources through good conservation and engineering practices that protects life, health, property, and natural resources."

Response to Comment 0007-10: NOT ACCEPTED. The Division is required by statute to supervise the development of oil and gas resources, to prevent, as far as possible, damage to life, health, property, and natural resources. The wise development of hydrocarbon resources is consistent with the Division's statutory mandate and thus a goal of the regulations, but it is not a specific component of the regulatory text. Instead the Division uses the term "life, health, property, and natural resources" in these regulations to remain consistent with the language of its statutory mandate under Public Resources Code (PRC) section 3106.

Idle Well Management Plan

0012-4, 0012-5

The proposed regulations should reflect the legislative intent to incentivize operators to develop plans to plug and abandon wells that are no longer viable to be returned to use. The regulations should expressly acknowledge the role of Idle Well Management Plans and leverage the Plans to help manage the workload associated with the current statewide inventory of idle wells. The regulations should establish regulatory exemptions for all long-term idle wells that are already scheduled for elimination under an approved Idle Well Management Plan. The exemptions should apply to the Idle Well Inventory and Evaluation, the testing requirements, the engineering analysis requirements, and the Testing Waiver Program. Since these wells are already scheduled to be plugged and abandoned, operators should not be required to devote limited resources to these wells.

Response to Comments 0012-4 and 0012-5: ACCEPTED IN PART. *The proposed regulations incentivize the plugging and abandonment of wells that are no longer viable to return to use by exempting those wells scheduled for plugging and abandonment from testing requirements. Wells scheduled for plugging and abandonment on an approved Idle Well Management Plan or a Testing Waiver Plan will now be exempt from the testing requirements and the engineering analysis. Long-term idle wells on an approved Idle Well Management Plan may also be put on a Testing Waiver Plan. These exemptions will afford operators the opportunity to devote resources to the plugging and abandonment of wells that are no longer viable. Wells on an Idle Well Management Plan or Testing Waiver Plan are not, however, exempt from the Idle Well Inventory and Evaluation, because the information provided in the Inventory and Evaluation is needed to prioritize these idle wells for plugging and abandonment.*

Compliance / Transition Period

0001-1, 0003-3, 0004-6, 0005-1, 0005-2, 0010-1, 0012-1, 0014-1

The commenters recommend that the compliance period be risk based and the compliance period be extended. Testing should be prioritized based on risk factors, such as fluid levels above a USDW and wells with higher surface pressure.

While many operators initially suggested a compliance or transition period of 48 months, after further evaluation, operators believe the compliance or transition period should be extended to 10-12 years. A longer compliance period is needed to mobilize a rig for the testing, rig availability, and the need to recruit and train qualified rig personnel.

The commenters are concerned about operators' ability to mobilize rigs to complete the required testing because there will already be a high demand for rigs to complete plugging and abandonment. The regulations should allow for alternative testing methods to satisfy the pressure testing requirement. Industry-approved and recognized mechanical integrity testing methods such as nitrogen fluid level depression tests, static temperature and spinner surveys, and caliper logs do not require the mobilization of a rig, and are acceptable alternatives to casing pressure tests. These alternative mechanical integrity testing methods were not included in the proposed regulations, thereby requiring the majority of the nearly 30,000 idle wells in the State to undergo casing pressure tests that require a rig.

Based on calculations provided by the commenter, which were derived from data gathered from informal statewide surveys of service companies, it is estimated that it would take 7 to 11.5 years to complete all the required testing. This estimate far exceeds the proposed 48-month compliance period and does not account for variables that could further adversely affect the number of tests that a single rig can perform over a given period. Other factors limiting rig availability include: the number of rigs that need to be refurbished to comply with CARB Tier 4 engine requirements; the limited ability to import rigs from out of state; and competition for the equipment that is required to conduct other new and existing regulatory requirements.

The commenters are concerned about the rig service industries' ability to recruit and train qualified rig personnel. Fluctuations in the rig service job market due to oil and gas price swings have resulted in turnover or relocation of experienced rig personnel to other states with greater oil and gas activity.

Even if additional equipment can be obtained, there are not enough trained crews to operate the rigs that are necessary for pressure testing and plugging and abandonment of wells. The lack of trained crews should be considered one of the most significant reasons for the need for a longer transition period. The condition of idle wells can vary greatly and crews must have sufficient experience to be able to respond to site-specific conditions without endangering themselves or the environment.

Response to Comments 0001-1, 0003-2, 0004-6, 0005-1, 0005-2, 0010-1, 0012-1, and 0014-1:
ACCEPTED IN PART. *The Division is aware of the challenges identified by the commenters and has made multiple changes to the regulations in response. The testing compliance period has been extended from 48 months to six years. The regulations also provide for a gradual phase in of pressure testing requirements for idle wells through 2025, but after April 1, 2025, if the fluid level in an idle well is above a USDW, then the well must be pressure tested on an expedited, 90-day timeframe. This is necessary because the idle well poses a potential threat to higher-quality groundwater*

The proposed regulations now include a series of factors for prioritizing idle wells for testing under the Testing Compliance Work Plan. The operator prioritizes the testing of wells based upon the prioritization factors, and the Division will review the Testing Compliance Work Plan and may adjust the order of wells to be tested.

Wells scheduled for plugging and abandonment under an operator's Idle Well Management Plan or Testing Waiver Plan will be exempt from testing. The regulations now include alternative testing methods to satisfy the pressure testing requirement which do not require the mobilization of a rig. The Division has authorized the use of an Inert Gas Depression Test, otherwise known as a Modified Nitrogen Ada, for the pressure testing requirements of subsection 1772.1(a). As this casing integrity test does not require a rig, and can be done more quickly and cheaply than a casing pressure test, some of the difficulties related to rig availability should be alleviated. Similarly, to satisfy the pressure testing requirement, the Division has approved the use of alternate mechanical integrity testing on a case-by-case basis and passive testing for low-priority idle wells.

The proposed regulations provide sufficient alternatives to comply with the testing requirements within the time provided and, to the greatest extent possible, reduce the costs of complying with these regulations. The extended compliance period, the Testing Waiver Program, and the addition of alternative casing pressure tests should afford the rig service industry sufficient time to recruit and train qualified rig personnel.

0010-2, 0012-3

The proposed regulations do not clearly identify which wells would be subject to the compliance transition period. As proposed, certain wells could be placed into noncompliance status almost immediately given the timing in the regulations and the length of time the well has been off production. Subsections 1772.1(a)(1) and (a)(2) require the fluid level and casing pressure testing "within 24 months of a well becoming an idle well." This could accelerate the testing for wells that have only recently stopped operating.

Subsections 1772.1(a)(1), (a)(2), and (a)(3) should be clarified so that an operator has the full 24-month period or 8-year period, after the effective date of the regulations, to complete the required testing. All wells that have already attained idle well or long-term idle well status as of the effective date of the regulations should fall under the transition period described in subsection 1772.1(g).

Subsection 1772.1(g) refers to wells that as of the effective date will be “overdue” for testing. It is unclear how wells could be considered overdue for testing in accordance with requirements that were not previously in effect.

Response to Comments 0010-2 and 0012-3: ACCEPTED IN PART. Under subsection 1772.1(a)(1), a well that is idle on or before the effective date of the regulations, is not required to have a fluid-level test until April 1, 2021. Otherwise, within 24 months of a well becoming an idle well, the operator must conduct a fluid-level test for all idle wells. After April 1, 2025, the operator must conduct a casing pressure test within 90 days of the first time that a fluid-level test indicates that the fluid level in the well is, or is presumed to be, above the base of a USDW.

For wells that are not idle as of the effective date of the proposed regulations, under subsection 1772.1(a)(2), within 24 months of a well becoming an idle well the operator must conduct a casing pressure test. For all wells that are idle as of the effective date, the operator must conduct a pressure test and clean out tag by April 1, 2025, unless the well is plugged and abandoned, partially plugged and abandoned, or scheduled for plugging and abandonment under an approved Idle Well Management Plan or Testing Waiver Plan.

Subsection 1772.1(g) and the reference to “overdue” has been removed.

0002-4

The required testing under subsection 1772.1(b) is prescriptive and may result in failed tests, therefore requiring operators to fix, partially plug, or fully plug and abandon a well in 12 months. This will require a rig and there may be a limited number of rigs because of these regulations. The Division should conduct a rig availability study to assess if there are adequate resources in the State to implement this regulation.

Response to Comment 0002-4: ACCEPTED IN PART. The Division expects that the proposed regulations will lead to remediation or plugging and abandonment of many idle wells. Subsection 1772.1(b) has been revised to allow operators to put a well that failed testing on an approved Idle Well Management Plan or an approved Testing Waiver Plan to be scheduled for plugging and abandonment, thereby giving operators additional time to plug and abandon the well.

Revisions have been made to the regulations to reduce the need for rigs for testing and to extend the time by which wells must be plugged and abandoned. To satisfy the pressure testing requirement additional testing options have been adopted, including the Inert Gas Depression Testing, alternate testing methods on a case-by-case basis, and caliper surveys for low-priority idle wells; all of which should reduce the need for rigs for testing. Wells on an Idle Well Management Plan or Testing Waiver Plan are now exempt from testing requirements, further reducing the need for rigs. These changes should reduce the pressure on the rigs that are available and provide operators ample time to comply with the regulations.

Compliance Costs

0012-2, 0003-3

The commenter estimates that the total compliance costs will be in the range of 450-600 million dollars. The commenter encourages the Division to adopt more cost effective idle well testing and plugging and abandonment requirements.

Response to Comment 0012-2: ACCEPTED. *The Division is aware of the significant cost associated with these regulations. The Standardized Regulatory Impact Assessment estimated the costs to be between 195 and 270 million dollars annually. However, the economic impact stemming from the costs to comply with the regulations would create positive indirect secondary impacts to statewide gross output, contract service jobs, earnings, and value added, despite the short-term possibility of downsizing or small operators exiting the industry. In the long-term, operators are expected to continue innovating both their processes and their technologies to make the extraction of hydrocarbons profitable. A number of revisions have been made to reduce the overall compliance cost to operators. Exemptions from testing requirements for idle wells placed on an Idle Well Management Plan or Testing Waiver Plan, and alternative testing options which do not require rig to satisfy the pressure testing requirements should significantly reduce the overall cost burden to operators.*

Concerns with Non-Qualitative Terms

0007-9

The proposed regulations include non-qualitative terms such as “to the satisfaction” and “that an idle well exhibits” these terms should either be replaced or further clarified with qualitative terms, such as an example of technical or science based limit, value or condition. The use of these terms makes compliance challenging because different Division staff may interpret the non-qualitative requirements differently.

Response to Comment 0007-9: NOT ACCEPTED. *The Division believes that when taken in context, the terms are clear using their ordinary meaning and provide a clear standard. The Division provides performance standards for compliance under the regulations. The Division is responsible for determining if an operator has met a requirement or performance standard in regulation or statute. The Division’s goal is to create a consistent framework for the testing of idle wells, but the proposed regulations reflect that when evaluation of a data submission or other procedure will require interpretation and evaluation ministerial criteria is not always beneficial.*

Inaccessible Idle Wells

0002-6

For wells that do not exist on the surface and a diligent effort has been made to locate the well, “there should be a specified time limit to the requirements taking into the account the length of time that has passed. For instance, if a well could not be located over 20 years ago, it may be in another location and continuing to monitor indefinitely may not yield any meaningful benefits.”

Response to Comment 0002-6: NOT ACCEPTED. *PRC section 3008, subdivision (d), provides that an idle well continues to be an idle well until the well has been properly abandoned in accordance with Section 3208 or the well has continuously produced for six-months. By statutory definition, a well that does not exist on the surface and a diligent effort has been made to locate it remains an idle well. The Division recognizes the challenges these idle wells pose. In accordance with Section 1772.1, subdivision (d)(1), operators with such wells should work with Division staff to develop an ongoing monitoring,*

response, and reporting plan for these wells that will ensure the protection of life, health, property, and natural resources.

0012-28

Subsection 1772.1 (d)(1)(A) should be revised to clarify that periodic gas monitoring at the surface needs to be included in a monitoring plan only where it is appropriate. For example, where it is physically feasible and can be conducted safely. Historically, operators have worked with Division staff to design subsurface monitoring plans that rely on wells in the proximity of an inaccessible idle well when a well is physically inaccessible or cannot safely be accessed.

***Response to Comment 0012-28: ACCEPTED.** Subsection 1772.1(d)(1)(A), has been revised to clarify that that periodic gas monitoring at the surface is only one method of the ongoing monitoring of inaccessible wells. The section has been further revised to include “monitoring of other wells in proximity” as a method for ongoing monitoring of the inaccessible well. Operators should submit a monitoring plan for the Division’s review and approval to ensure that any hazards posed by the well are identified and addressed so as to prevent damage to life, health, property, and natural resources.*

Gas Storage Facilities

0009-1

The commenter is concerned about the applicability of the proposed regulations to underground gas storage facilities and potential overlap and conflicts with other regulations. Idle wells in underground gas storage facilities are already subject to integrity testing and Risk Management Plan requirements of the Underground Gas Storage Regulations. The underground gas storage facility requirements are more stringent than the proposed Idle Well Regulations. The Underground Gas Storage Regulations require wells to be monitored at least daily in addition to a reoccurring and condition based mechanical integrity inspection.

The proposed idle well regulations do not properly contemplate the mechanics or actual operations of gas storage fields. Based on these concerns, the idle well regulations should be amended to specifically remove wells in a gas storage project from the requirements of the proposed idle well regulations.

***Response to Comment 0009-1: ACCEPTED IN PART.** Idle well is defined by statute at PRC section 3008, subdivision (d), and does not exempt idle wells in a gas storage project. These regulations cannot change the statutory definition of idle well. Where possible, the Division has removed any potential overlap or conflicts between these regulations and the Underground Gas Storage regulations. If an idle well is subject to the mechanical integrity testing requirements of the underground gas storage regulations, section 1726.6, then the operator is not required to comply the proposed idle well requirements for testing, the engineering analysis, or for active observation wells.*

0011-1

Proposed section 1772.3 of sets forth the testing requirements for observation wells. Wells at underground gas storage facilities are subject to extensive regulations under the recently finalized underground gas storage project regulations. Active observation wells that penetrate the gas storage reservoir at underground gas storage projects are subject to the stringent underground gas storage

project requirements. Requiring operators to comply with section 1772.3 for observation wells would be duplicative and unduly burdensome.

Active observation wells that do not penetrate a gas storage reservoir, but are used to gather reservoir and/or reservoir integrity data, would be subject to section 1772.3, but not the underground gas storage project requirements.

Section 1772.3 should be revised to make clear that active observation wells that penetrate the reservoir are subject to the underground gas storage project requirements but not the proposed regulations, and active observation wells that do not penetrate the reservoir are subject to section 1772.3 of the proposed regulations but not the underground gas storage project requirements.

Response to Comment 0011-1: ACCEPTED IN PART. *Idle well is defined by statute at PRC section 3008, subdivision (d). An active observation well is not an idle well. An active observation well is defined at PRC section 3008, subdivision (c), as a well used for the sole purpose of gathering reservoir data.*

If an idle well penetrates a gas storage reservoir and is subject to the mechanical integrity testing requirements of section 1726.6 then the operator is not required to meet the testing requirements in section 1772.1, the pressure testing parameters in section 1772.1.1, the engineering analysis in section 1772.1.2, and the requirements for active observation wells in section 1772.5.

Under the proposed regulations, within six months of a well becoming an active observation well, the operator must conduct a casing pressure test on the active observation well unless a casing pressure test has been conducted on the well in the past five years. The operator must repeat the testing every 60 months.

If an observation well penetrates a gas storage reservoir and has therefore undergone a pressure test under the Underground Gas Storage Regulations within the past five years, the observation well will not need to undergo an additional pressure test under the idle well regulations. Under the proposed regulations, the observation well will be due for testing 60 months after the pressure test was completed.

The Underground Gas Storage Regulations require operators to submit a Risk Management Plan that includes a schedule for pressure testing each well that penetrates the gas storage reservoir of the operator's underground gas storage project. Pressure testing can be conducted at a minimum frequency determined on a well-by-well basis approved by the Division. When submitting the schedule for active observation wells, operators may propose to test their observation wells at a 60-month frequency. If the Division is satisfied that this testing frequency will protect life, health, safety, and natural resources, including potential contamination of groundwater, dilution of hydrocarbon resources, and emission of methane and other gases into the atmosphere, the frequency may be approved.

0013-1

The commenter requests clarification related to the definition of “idle well” as it pertains to underground gas storage wells. Gas storage wells are used for both injection and withdrawal. A gas storage well that is used for withdrawal should not be considered “idle.” The use of “production” should include withdrawal for a gas storage well. The act of withdrawing gas should be explicitly included in the definition of idle well as a method to determine that a gas storage well is active.

The commenter requests clarification to the phrase “continuous six-month period.” The commenter interprets the phrase as not intending to require an idle gas storage well to remain on a continuous six-month period of injection (or withdrawal/production) to reclassify as “active.” Operation of a storage well in this fashion is contradictory to the purpose and use of underground gas storage. Injection or withdrawal of underground gas storage wells are determined by seasonal or operational needs.

The Division should incorporate a provision for “idle” underground gas storage wells to be reclassified as “active” if they meet the Division’s underground gas storage regulation requirements for monitoring, testing, and integrity, and are operated in a manner that maintains the availability of the well for injection or withdrawal, consistent with the variable need for and use of underground gas storage.

Response to Comment 0013-1: NOT ACCEPTED. Idle well is defined by statute at PRC section 3008, subdivision (d). An idle well is any well that for a period of 24 consecutive months has not either produced oil or natural gas, produced water to be used in production stimulation, or been used for enhanced oil recovery, reservoir pressure management, or injection. An idle well continues to be an idle well until it is properly abandoned in accordance with PRC section 3208 or the well has continuously produced for a six-month period. An idle well does not include an active observation well. The statutory definition of idle well cannot be changed by these regulations, and “availability” for use is not activity that prevents a well from becoming an idle well.

USDW Map

0002-1, 0008-6, 0015-2

The commenters inquired whether there is a publicly available list or map showing the known USDW. One commenter specifically asked if an AAGP Bulletin by Janice Gillespie on Groundwater salinity in the southern San Joaquin Valley is the resource available to operators to “demonstrate” to the Division their idle well is outside of one-half mile from a USDW. Without additional clarity operators may submit evidence which the Division may not accept.

Response to Comments 0002-1, 0008-6 and 0015-2: Comprehensive lists or maps of USDW do not exist. The AAGP Bulletin is one resource available to help an operator, in part, demonstrate that an idle well is outside of one-half mile of a USDW. The AAGP Bulletin may not provide enough information for all wells to be the only resource to demonstrate an idle well is outside of one-half mile from a USDW. The Division is drafting guidance to help operators identify the additional types of data that can demonstrate the presence of a USDW for the purposes of these regulations.

0012-30

The regulations should specify how the determination of lateral distance from a USDW is to be made. This blanket distance requirement also does not allow for faults, unconformities, or other geologic features that can isolate USDWs even if wells are located within one-half mile.

Does the Division have maps showing the areal extent of USDWs projected to the surface?

Response to Comment 0012-30: Language has been added to the regulations to clarify that the one-half mile measurement is made from the wellbore rather than laterally from the wellhead. The one-half mile distance is set by statute and does not allow for a variance in the measurement for isolating geologic features.

Comprehensive maps showing the areal extent of USDW do not exist. The Division is drafting guidance to help operators identify the types of data that can demonstrate the distance from a USDW.

0008-2

The commenter offered a series of references that may be used as an outline to follow in establishing USDW locations.

Response to Comment 0008-2: NOTED. Thank you. The Division is drafting guidance which will help operators identify the types of data that can demonstrate the distance to/from a USDW and may utilize the references in drafting that guidance.

1752. Wells Partially Plugged

0001-5

Section 1752 should be “amended to allow for the use of alternative technologies available to partially plug a well. Specifically, in oil, gas and disposal zones, technologies in addition to the use of cement should be allowed if demonstrably shown to ensure isolation.”

0007-3

Subsections 1752(b)(2), (3), and (4) should be amended to include the use of materials such as bentonite, and allow for the use of future technology that will ensure isolation of a USDW.

Response to Comments 0001-5 and 0007-3: ACCEPTED. This section has been modified by removing “cement” and referencing the existing plugging and abandonment regulations. In accordance with current regulations, plugging will be done in a manner to protect oil and gas zones, to prevent fluid migration of hydrocarbons into other strata containing groundwater or vice versa, to prevent degradation of useable waters, and for public health and safety purposes. Current plugging and abandonment regulations require that freshwater be isolated, to protect against contamination of freshwater zones, and these regulations are designed to be consistent with those requirements. Where geologic or groundwater conditions dictate, the current regulations also provide that special plugging procedures may be specified to prevent contamination of usable waters from poor quality surface waters, separate water zones of varying quality, and isolate dry sands that are in hydraulic continuity with groundwater aquifers. Partial plugging of a well in accordance with these requirements will provide most of the essential environmental protections of complete plug and abandonment, while also allowing operators the flexibility to partially plug an idle well in lieu of compliance with idle well

testing requirements is consistent with the mandates of Public Resources Code sections 3106 and 3206.1, subdivision (c).

0001-12

The commenter suggests a new section be added to the proposed regulations for partially abandoning a well with junk in the hole. Partial plugging and abandonment of a well is a reasonable alternative and is consistent with section 1723 Plugging and Abandonment-General Requirements, subsection (f), instances in which the regulations allow portions of a hole to not be filled with cement. This practice is already allowed, so the language should make it clear that partial abandonment can still be permitted at the Division's discretion.

***Response to Comment 0001-12: ACCEPTED IN PART.** A cross reference to the existing plugging and abandonment regulations, including section 1723(f), plugging and abandonment regulations for junk in hole, has been added.*

0012-7

Freshwater already falls within the definition of USDW. Freshwater contained within an exempt aquifer should not be subject to isolation requirements applicable to protected USDWs. This subsection could be interpreted to require an additional level of isolation for freshwaters, beyond the isolation required for a USDW, and irrespective of any aquifer exemption approved by the US EPA. Subsection 1752(b)(3) should be deleted to eliminate regulatory confusion.

***Response to Comment 0012-7: NOT ACCEPTED.** Freshwater is distinct from a USDW. If an aquifer is exempt, by definition, it is no longer a USDW. However, freshwater in the aquifer may still require protection and is not exempted by the US EPA aquifer exemption process. Current plugging and abandonment regulations require that freshwater be isolated to protect against contamination of freshwater zones, and these regulations are designed to be consistent with those requirements.*

Section 1752(b)(3) has been deleted and replaced with a cross reference to the current requirements for plugging for freshwater protection. Current plugging and abandonment regulations require that freshwater be isolated, to protect against contamination of freshwater zones, and these regulations are designed to be consistent with those requirements. Where geologic or groundwater conditions dictate, the current regulations also provide that special plugging procedures may be specified to prevent contamination of usable waters from poor quality surface waters, separate water zones of varying quality, and isolate dry sands that are in hydraulic continuity with groundwater aquifers.

0012-8

It is unclear whether the pressure test described in proposed subsection 1752(c) applies only to a partially plugged well after the well has become a long-term idle well.

***Response to Comment 0012-8: NOT ACCEPTED.** A well that has been partially plugged must conduct a pressure test of the casing by April 1, 2024 or when the partially plugged well becomes a long-term well, whichever is later. If an operator has a long-term idle well that has been partially plugged for more than 60 months on the effective date of the regulation, then the operator must conduct a pressure test within 12 months of the effective date of the regulations.*

For example, if an operator has a well that as of the effective date of the regulations has been idle for eight years and has been partially plugged for more than 60 months, the operator must conduct a pressure test of the casing within 12 months of the effective date of the regulations. If an operator has a well that is six years idle at the effective date of the regulations, the operator has until April 1, 2024 to conduct a pressure test of the casing. Whereas, if an operator has a well that is 2 years idle at the effective date, the operator must conduct a pressure test by the date the partially plugged well becomes a long-term idle well. The partially plugged well becomes a long-term idle well after being 8 years idle, so the operator would have six years to pressure test the casing.

0015-1

WellSTAR needs an additional field related to Notice of Intentions (NOIs) for partially plug and abandon work types. It is currently limited to abandonments or reworks.

Response to Comment 0015-1: NOT ACCEPTED. The configuration of WellSTAR is not relevant to the regulatory text. However, this suggestion was passed on to the WellSTAR team.

1760. Definitions

0001-6

The definition of “designated waterways” should be amended to delete the Supervisor’s ability to determine that an ephemeral waterway has a direct impact on perennial waterways. Such determinations should not be discretionary and DOGGR does not have the authority to define jurisdictional waterways. The commenter recommends adopting the definition of “designated waterway” relied upon by the State Water Resources Quality Control Board and Central Valley Regional Water Board.

Response to Comment 0001-6: NOT ACCEPTED. The proposed regulations change the regulations for idle well testing and management. The definition section is modified by the inclusion of new definitions related only to idle well testing and management. Designated waterway is not related to idle well testing and management and is outside the scope of this rulemaking.

0001-7

The definition of “environmentally sensitive” should be amended as follows: “A production facility within 300 feet of any public recreational area, or a building intended for human occupancy that is not necessary to associated with the operation of the production operation, such as residences, schools, hospitals, and businesses.”

Response to Comment 0001-7: NOT ACCEPTED. “Associated with” is a much broader term than “necessary” and would suggest that any building intended for human occupancy with a relationship to the production operation would be included in the determination if a production facility is environmentally sensitive. For example, if an operator purchased a residence near a field to house employees of the production facility, that residence would be a building “associated with” production and would be included in the determination if a production facility is environmentally sensitive. “Not necessary” is appropriately narrow to focus this definition to buildings for human occupancy that are not, and should not be considered, part of a production operation.

0007-1

The definition of “idle well” should be amended . The suggested language follows: “1760(i) Idle Well – Means any well that for a period of 24 consecutive months has not either produced oil or natural gas, produced water to be used in production stimulation for stimulation, a beneficial use, or been used for enhanced oil recovery, reservoir pressure management, or injection. For the purpose of determining whether a well is an idle well, production or injection is subject to verification by the Division. An idle well continues to be an idle well until it has been properly abandoned in accordance with Section 3208 or it has been shown to the Division's satisfaction that, since the well became an idle well, the well has for a continuous six-month period either maintained production of oil or natural gas, maintained production of water used in production stimulation, beneficial use, or been used for enhanced oil recovery, reservoir pressure management, or injection. An idle well does not include an active observation well.”

Response to Comment 0007-1: NOT ACCEPTED. Idle well is defined by statute at PRC section 3008, subdivision (d). The statutory definition of idle well cannot be changed by regulation.

0001-8

The definition of “long-term idle well” should be amended to mean a well that has been idle for ten consecutive years as opposed to eight or more. “This language clarifies a ‘long-term idle well’ must be idle for 10 consecutive years and reflects the 24-month threshold included in the definition of an ‘idle well’. The language as written needs clarity as it appears to indicate that after only 8 years a well can be considered a ‘long-term idle well’.”

0007-2

The definition of “long-term idle well” should be amended to include clarifying language that the well has been idle for 10 years or more.

Response to Comments 0001-8 and 0007-2: NOT ACCEPTED. Long-term idle well is defined by statute at PRC section 3008, subdivision (e). The statutory definition of long-term idle well cannot be changed by regulation. A long-term idle well is a well that has been idle for eight or more years.

0013-7

The definition section does not incorporate the recent rulemaking actions related to Requirements for Oil and Gas Pipelines.

Response to Comment 0013-7: ACCEPTED. The oil and gas pipeline regulation became effective October 1, 2018 and have been added to regulation.

1772. Idle Well Inventory and Evaluation

0001-9, 0008-5

Most of the data required in the Idle Well Inventory and Evaluation is unnecessary, as it is already submitted to the Division as part of the existing permit requirements. Once fully functional, this data will be contained within the WellSTAR program. Any duplicative data requirements should be removed from the proposed regulations.

Response to Comments 0001-9 and 0008-5: NOT ACCEPTED. PRC section 3206.1, subdivision (a), requires the Division to review, evaluate, and update its regulations pertaining to idle wells. Section

1772 meets this mandate by ensuring that data about risk indicators is readily available to facilitate a risk-based approach for the management of idle wells, particularly when prioritizing plugging and abandonment or testing under an Idle Well Testing Compliance Plan, Idle Well Testing Waiver Plan, or Idle Well Management Plan.

Operators are responsible for maintaining accurate records about their wells. While some of the information that is being requested must be submitted as part of the Division's existing permit requirements, the Division's historical files are in many cases incomplete and/or inaccurate. Once fully functional, WellSTAR will provide a comprehensive database for storing the information. The proposed regulations specify that information that has previously been submitted to the Division does not need to be resubmitted. After initial submission, operators must update and submit their Idle Well Inventory and Evaluation annually.

0012-9

The Division should be required to provide updated idle well lists to operators no later than January 1 of each year, and operators' annual updates should be due no later than March 31 each year.

Response to Comments 0012-9: NOT ACCEPTED. The statewide idle well inventory is available on the Division's website, and operators can download an excel sheet listing of their idle wells. Operators must submit their Idle Well Inventory and Evaluation to the Division by January 31, 2021, or within one year after becoming the operator of an idle well, whichever is later. After initial submission, operators must submit their updated Idle Well Inventory and Evaluation to the Division by January 31 of each year. The Idle Well Inventory and Evaluation must be submitted by January 31 because the Inventory and Evaluation will be used to evaluate an operator's idle well and inventory and guide the prioritization of idle wells for testing and plugging and abandonment under an operator's Testing Compliance Work Plan, Testing Waiver Plan, or Idle Well Management Plan.

0012-10

A large number of the idle wells are owned by a small percentage of operators. The proposed idle well evaluation requirements place a substantial burden on that small number of operators and cannot realistically be achieved in a one-year time frame. A two-year period for initial submission of inventories and evaluations should be adopted.

In order to allow operators to focus on wells that pose the highest potential risk, the Division should identify categories of low-risk idle wells that would be exempt from the evaluation requirements or at least be deferred to a later phase of implementation.

Idle wells that do not penetrate a USDW or long-term idle wells that are scheduled for elimination pursuant to an Idle Well Management Plan or subject to an Idle Well Testing Waiver Plan, should be exempt from the evaluation requirements unless the Divisions demonstrates through substantial evidence that some or all of the information is required.

Response to Comment 0012-10: ACCEPTED IN PART. Operators must submit their Idle Well Inventory and Evaluation to the Division in a digital format by January 31, 2021, or within one year after becoming the operator of an idle well, whichever comes later, and requires updates to the Idle Well Inventory and Evaluation each year after by January 31. Unless requested by the Division, an operator would not have to resubmit any information that may have already been submitted in compliance with other requirements of these proposed regulations. The Division believes that the two years

provided for initial compliance with section 1772 is sufficient but may allow additional time for the initial submission based on an operator's total number of idle wells and challenges the operator faces in compiling the information.

A category of low-priority idle wells has been defined and, in part, requires that the well does not penetrate a USDW. The low-priority idle wells and wells on an Idle Well Management Plan or an Idle Well Testing Waiver Plan are not exempt from the Idle Well Inventory and Evaluation requirements. The Inventory and Evaluation will be used to evaluate an operator's idle well inventory and guide the prioritization of idle wells for testing and plugging and abandonment under an operator's Testing Compliance Work Plan, Testing Waiver Plan, and Idle Well Management Plan.

0012-11

"Idle wells that do not penetrate USDWs do not pose a threat to protected water (USDWs or waters with other reasonably foreseeable beneficial uses) and thus should be exempt from the Idle Well Evaluation requirements absent specific evidence demonstrating a need for the information specified in section 1772. This category includes wells that are located in areas where groundwater is absent, where there is no usable groundwater, or where usable groundwater is present in amounts that are not sufficient to meet the sustained yield requirements adopted by EPA and the State Water Resources Control Board." Preparing evaluations for each of these wells will consume a disproportionately large portion of operators' resources, diverting resources away from preparation of evaluations for wells that have a potential to impact protected water.

Response to Comment 0012-11: NOT ACCEPTED. *The Division has the statutory duty to protect life, health, property, and natural resources. Although USDWs and protected waters are among the resources that the Division must protect, they are not the only resources requiring protection. PRC section 3106, subdivision (a), provides that the Supervisor must prevent "damage to underground oil and gas deposits from infiltrating water and other causes; loss of oil, gas, or reservoir energy, and damage to underground and surface waters suitable for irrigation or domestic purposes by the infiltration of, or the addition of, detrimental substances."*

The potential hazards associated with idle wells are not limited to potential contamination of groundwater, and Public Resources Code section 3206.1 requires the Division to adopt appropriate regulations that verify the mechanical integrity of idle wells. Although it may be a lower priority to test an idle well if it clearly does not pose a threat to groundwater, pressure testing is needed to verify the mechanical integrity of the casing regardless of whether there is a known USDW or no fluid above the base of freshwater. The Inventory and Evaluation will be used to evaluate an operator's idle well inventory and guide the prioritization of idle wells for testing and plugging and abandonment under an operator's Testing Compliance Work Plan, Testing Waiver Plan, or Idle Well Management Plan.

For operators unable to complete the Inventory and Evaluation on time due to their large number of idle wells and particular obstacles that they have encountered, the Division may afford additional time for submittal.

0012-12

Wells scheduled for plugging and abandonment on an Idle Well Management Plan or Idle Well Testing Waiver Plan should be exempt from the Idle Well Inventory and Evaluation requirements of section 1772. Requiring Idle Well Inventory and Evaluations for long-term idle wells that are already

scheduled for plugging and abandonment is not a good use of resources and is not likely to result in reprioritization of wells to be plugged and abandoned.

Response to Comment 0012-12: NOT ACCEPTED. Public Resources Code section 3206.1, subdivision (a), requires the Division to review, evaluate, and update its regulations pertaining to idle wells. Section 1772 meets this mandate by ensuring that data about risk indicators is readily available to facilitate a risk-based approach for the management of idle wells, particularly when prioritizing plugging and abandonment or testing under an Idle Well Testing Compliance Plan, Idle Well Testing Waiver Plan, or Idle Well Management Plan. The information provided in the Idle Well Inventory and Evaluation will be used to evaluate an operator's idle well inventory and guide the prioritization of idle wells for testing and plugging and abandonment under an operator's Testing Compliance Work Plan, Testing Waiver Plan, and Idle Well Management Plan.

0012-13

The requirement in subsection 1772(a)(3) that all Mechanical Integrity Testing (MIT) history be submitted annually should be deleted. MIT results are already submitted to the Division and should be available in the WellSTAR database. If this requirement is not deleted, the requirement should be limited so that operators only have to submit the testing history they have available. Many wells have been purchased by and transferred to new operators and the testing history is not available.

0013-2

The requirement that operators submit the history of mechanical integrity testing found under subsection 1772(a)(3) is ambiguous and subject to subjective interpretation. The subsection should provide a more definitive requirement, such as "the history of the last mechanical integrity test before the well became idle and all tests after becoming idle with any failed pressure tests clearly flagged."

Response to Comments 0012-13 and 0013-2: ACCEPTED. This requirement has been modified.

Operators are now required to submit only the results of the most recent mechanical integrity testing for the idle well, including the type of test, the date of the test, the results of the test, and a description of any remediation of the well subsequent to the test. A recently failed integrity test is a clear indicator that the well has an integrity issue and is potentially a threat to public health and safety.

0012-14

Proposed subsection 1772(a)(8) should be amended to clarify the scope of the information the operator must provide. Operators should only submit information that is already known to the operator.

Response to Comment 0012-14: ACCEPTED. This subsection has been modified. The operator must indicate any known downhole issues with the idle well that would make it difficult to either reactivate the well or plug and abandon the well. Downhole impediments may prevent the well from being abandoned to current standards. Depending on the type of impediments, this information may indicate that the well lacks mechanical integrity such as collapsed casing. Operations required to clean out a wellbore prior to abandonment would indicate higher liability associated with the plugging and abandonment of the well. The subdivision only requires identification of downhole issues that are known to the operator. Beyond what is otherwise required, the operator is not required to complete additional testing or evaluation in order to comply with section 1772.

0012-15

The commenter appreciates the addition in subsection 1772(b) that if information has previously been submitted to the Division the operator is not required to resubmit the information.

Response to Comment 0012-15: ACCEPTED. The Division tries to reduce requests for redundant information to the greatest extent possible. Subsection 1772(b), provides that if an operator has already submitted data to the Division, they do not have to do so again unless specifically requested to do so by the Division.

0012-16

To avoid confusion and ensure consistency of reporting methodologies, the regulations should specifically refer to WellSTAR as an acceptable digital format to submit the Idle Well Inventory and Evaluation.

Response to Comment 0012-16: NOT ACCEPTED. WellSTAR is still in development and is not ready for inclusion in regulation. The Idle Well Inventory and Evaluation must be submitted in a digital format and can be incorporated into WellSTAR when WellSTAR is fully realized.

1772.1. Testing of Idle Wells

0001-3

DOGGR should re-assess testing requirements in the proposed regulation to ensure they are technical in nature, safe and applicable in real-world field conditions. The required testing should not diminish the integrity of a well.

Response to Comment 0001-3: ACCEPTED IN PART. The Division has carefully considered all the comments submitted and reviewed the testing requirements. The testing requirements meet a regulatory need and are safe and applicable in real-world field conditions. The testing should not diminish the integrity of the well, unless the well is experiencing integrity deficiencies that should be remediated.

0006-1

Under section 1772.1, the time between required casing pressure tests would be based on the pressure to which the well is tested. The commenter expresses concern that there are not any “scientific studies or data sets demonstrating any correlation between test pressure and the frequency of mechanical integrity problems, let alone any data supporting the proposed test pressure and frequency combinations proposed in the rules. To the contrary, available studies suggest significant gaps in knowledge about the frequency at which wells experience mechanical integrity issues, and the causes and consequences of those issues.”

0006-2

“The goal of the Division’s regulations should be to detect and fix mechanical integrity issues before they lead to well failures. Allowing idle wells to go up to 8 years between pressure tests, depending on the test pressure, has no basis in science or risk analysis. The Division should revise the proposed idle wells testing rules to instead require operators to develop field-specific, risk-based plans for testing and monitoring the integrity of idle wells. Factors that should be considered when developing the plan should include those listed in proposed section 1772, Idle Well Inventory and Evaluation, as well as location, well type(s), well design and construction, production history, ownership history, and

the completeness and accuracy of well records. Operators should be required to submit, and the Division approve, such plans and those plans should be periodically updated to reflect new information and changes in operating conditions and best practices.”

Response to Comments 0006-1 and 0006-2: NOT ACCEPTED. *The proposed testing parameters are based on programmatic experience, review of other Federal and State rules, surveys of various service companies, and surveys from oil and gas producers. If an idle well can withstand a greater pressure, then it is more likely to have a high degree of mechanical integrity and does not have to be tested as frequently. Testing must be repeated periodically for as long as the well continues to be an idle well. How soon the next pressure test must be conducted is a function of how much integrity assurance the last pressure test provided, based on how thoroughly the idle well was stress tested:*

- *Repeat testing is required within 48 months for wells that are pressure tested to 200 psi or that are tested with inert gas depression testing, passive testing, or other alternatives to pressure testing.*
- *Repeat testing is required within 72 months for wells that are pressure tested to 500 psi.*
- *Repeat testing is required within 96 months for wells that are pressure tested to 1,000 psi.*

These varying testing periods are proportional to the risk exhibited by the well. If an idle well can be successfully tested to 1,000 psi, there is significantly less concern about the near-term possibility of integrity failure than if the idle well was only pressure tested to 200 psi.

Section 1772.4, prioritization of idle wells for testing and plugging and abandonment, has been added to the proposed regulations. An operator must consider these factors when prioritizing idle wells for testing or plugging and abandonment under a Testing Compliance Work Plan, Testing Waiver Plan, and Idle Well Management Plan. These factors will allow the Division to evaluate the comparative risk of the operator’s idle wells. The data received will be used to facilitate a risk-based approach for the prioritization of wells for testing and plugging and abandonment.

The proposed regulation focuses on protection of the public, natural resources, and the environment, while also providing operators regulatory flexibility to explore new technologies and processes to improve regulatory compliance.

0001-4, 0008-1

In the absence of a known USDW, testing and any associated testing frequency is unnecessary as the potential threat to drinking water is not present. The extensive aquifer exemption data compiled by operators and the Division should be a valuable resource in determining a USDW's presence. Where no USDWs are present, a pressure test is not warranted and a fluid level and cleanout tag every 60 months is adequate.

0001-10

Section 1772.1 (a)(1) requires fluid-level tests in order to determine whether there is fluid in an idle well which is above the base of a known USDW. Similarly, subsection (a)(2) requires a casing pressure test either within 24 months of a well becoming an idle well or within 90 days of the first time that a fluid level test indicates that the fluid level is above a USDW. If there is no known USDW at the location of the well, these tests will not be able to determine “anything with relation to a USDW.” To prevent unnecessary costs, these tests should only be required “if there is a known USDW at the location of the well.”

Response to Comments 0001-4, 0008-1 and 0001-10: ACCEPTED IN PART. *The potential hazards associated with idle wells are not limited to potential contamination of groundwater, and Public Resources Code section 3206.1 requires the Division to adopt appropriate regulations that verify the mechanical integrity of idle wells. Although it may be a lower priority to test an idle well if it clearly does not pose a threat to groundwater, pressure testing is needed to verify the mechanical integrity of the casing regardless of whether there is a known USDW or no fluid above the base of freshwater.*

0002-5

The wells subject to the requirements in subsection 1772.1(b) should be prioritized alongside the rest of the operator's portfolio, so that higher priority wells are eliminated first. If an operator does not have an Idle Well Management Plan, then DOGGR could retain the requirement under this subsection to eliminate with 12 months."

Response to Comment 0002-5: ACCEPTED IN PART. *Within 12 months of failing to comply with a testing requirement for a well under this section, the operator may now schedule the well for plugging and abandonment under an approved Idle Well Management Plan or Testing Waiver Plan. This change will allow these wells to be prioritized according to the factors found in section 1772.4 alongside the operator's other idle wells. If the operator does not have an Idle Well Management Plan or Testing Waiver Plan, the operator must still either bring the well into compliance, partially plug and abandon the well, or plug and abandon the well within 12 months of failing to comply.*

0012-17

Idle wells should be prioritized for testing according to risk. Prioritizing by risk will ensure that the compliance period is both practicable and protective of human health and the environment.

Suggested risk-based criteria to be used for prioritizing wells are as follows:

- Wells not located in areas where USDWs or protected waters are present, wells with fluid levels below USDWs, and wells that have no pressure at the surface should be deferred to the latter part of the compliance period or be scheduled for testing after high risk wells.
- Wells that have pressure at the surface should be prioritized as medium priority and should be scheduled for testing after higher risk wells.
- Wells with higher fluid levels, surface pressure, and that are in areas where USDWs or protected water are present should be prioritized as high priority and scheduled for testing early.
- Long-term idle wells that are scheduled for elimination in accordance with an approved Idle Well Management Plan should be exempt altogether from the testing requirements in section 1772.1.

Response to Comment 0012-17: ACCEPTED. *Section 1772.4 has been added to the regulations and provides ten risk-based factors for prioritizing idle wells for testing. The operator must consider the ten factors when prioritizing idle wells for testing under a Testing Compliance Work Plan. The Division will review the Testing Compliance Work Plan and, if necessary, periodically adjust the order of the wells to be tested. Operators will be required to complete testing based upon annual benchmarks.*

0002-2, 0012-18

The fluid-level testing requirements in subsection 1772.1(a)(1) are not referenced in subsection (g), suggesting that fluid-level testing must be completed for all idle well within 24 months of the effective

<p>date of the regulations. The fluid-level testing required by subsection 1772.1(a)(1) should be included within the transition period established under subsection (g).</p>
<p>Response to Comments 0002-2 and 0012-18: NOT ACCEPTED. <i>The fluid-level test must be conducted within 24 months of a well becoming idle. The fluid-level test is needed to determine if the fluid level is above a USDW. If the fluid level is above a USDW the well is considered higher risk because of the increased potential that fluids may migrate from the wellbore into the USDW.</i></p> <p><i>Subsection (g) has been deleted.</i></p>
<p>0004-2</p> <p>It is unclear under subsection 1772.1(a)(2) if all wells must be pressure tested or only wells that have a fluid level above the USDW. If the fluid level is below the USDW, the well does not pose a threat to the USDW. The Division should either exempt wells with fluid levels below the USDW from casing pressure tests since they do not pose a threat to the USDW, or allow for alternatives to casing pressure tests (such as temperature surveys) regardless of the fluid level to verify the integrity of the casing.</p>
<p>Response to Comment 0004-2: ACCEPTED IN PART. <i>The potential hazards associated with idle wells are not limited to potential contamination of groundwater, and Public Resources Code section 3206.1 requires the Division to adopt appropriate regulations that verify the mechanical integrity of idle wells. Although it may be a lower priority to test an idle well if it clearly does not pose a threat to groundwater, pressure testing is needed to verify the mechanical integrity of the casing regardless of whether there is a known USDW or no fluid above the base of freshwater.</i></p>
<p>0012-19</p> <p>The commenter believes that the time frames established for testing idle wells after the effective date of the regulations are reasonable but would like the Division to confirm their understanding related to fluid-level testing, casing pressure testing, and cleanout tags.</p>
<p>Response to Comment 0012-19: ACCEPTED IN PART. <i>The timeframe for fluid-level testing, casing pressure test, and cleanout tags are set forth in section 1772.1 .</i></p>
<p>0012-20</p> <p>Subsection 1772.1(g) is unclear. The subsection should be revised to read: “Wells that attained idle well status, or long-term idle well status, prior to the effective date of the regulations shall be required to complete the testing required under subdivisions (a)(1), (a)(2) and (a)(3) no later than 12 years after the effective date of this section.”</p>
<p>Response to Comment 0012-20: NOT ACCEPTED. <i>Section 1772.1, subdivision (g) has been removed. In its place, section 1772.1.4 has been added with requirements for Idle Well Testing Compliance Work Plans. For wells that are idle as of April 1, 2019, operators must conduct a pressure test by April 1, 2025. By June 1, 2019, operators must submit a Testing Compliance Work Plan that schedules completion of pressure testing and cleanout tags over the six-year compliance period.</i></p>
<p>0005-2, 0012-21, 0012-31</p>

Nitrogen Fluid-Level Depression Test (ADA Test), temperature surveys, and casing caliper logs should be included as allowable means for demonstrating casing integrity. Regulatory approval of these methods will save time and resources that would otherwise be spent seeking Division approval each time an operator proposes to use one of these testing methods. Case-by-case approvals by the Division should still be allowed for new testing methods that may be developed in the future.

Response to Comments 0005-2, 0012-21, and 0012-31: ACCEPTED IN PART. Alternative testing methods have been added to section 1772.1.1 of the proposed regulations as acceptable testing alternatives to satisfy the pressure testing requirements. Operators may conduct an Inert Gas Depression Test to satisfy the pressure testing requirements, unless the computed necessary pressure is less than 500 psi. Operators may also use alternative mechanical integrity testing if the alternative testing method has been approved by the Division on a case-by-case basis as being at least as effective as pressure testing to demonstrate the integrity of the well. Examples of alternative testing methods that will be considered on a case-by-case basis are a casing wall thickness inspection to estimate internal and external corrosion, using such methods as magnetic flux or ultrasonic technologies or a combination of ultrasonic imaging tool and a cement evaluation log. For low-priority idle wells the operator may satisfy the pressure testing requirements by conducting a caliper survey, provided the Division has approved the testing protocols as effective for evaluating well integrity.

0012-22

The commenter requests confirmation on the following interpretation: “The Division is only requiring pressure testing within 90 days of an initial test showing a well has a fluid level above a USDW. If the well continues to have a high fluid level on subsequent testing, it is not necessary to conduct another casing pressure test within 90 days.”

Response to Comment 0012-22: ACCEPTED. Commenter is essentially correct. Within 24 months of a well becoming an idle well, the operator must conduct a fluid-level test. The operator must repeat the fluid-level testing at least once every 24 months for as long as the well is an idle well, unless the operator demonstrates to the Division’s satisfaction that the wellbore does not penetrate a USDW. The language has been changed to require that after April 1, 2025, within 90 days of the first time that a fluid-level test indicates that the fluid level in the well is, or is presumed to be, above the base of an USDW, the well must undergo a casing pressure test. Pressure testing must be completed thereafter at 48 months, 72 months, or 96 months depending upon the psi at which the pressure test is conducted.

0012-23

Subsection 1772.1(a)(2) provides that “the operator shall conduct a casing pressure test from the surface to 500 feet below the base of the USDW, or at least to a depth that is 100 feet from the uppermost perforation or the casing shoe of the deepest cement casing.” Based on a strict reading, where no USDW is present, an operator could be required to pressure test at a deeper depth than if a USDW were present. Wells without USDWs should not be subject to more stringent testing requirements than wells with USDWs.

0004-3

It is unclear under subsection 1772.1(a)(2) what depth wells need to be pressure tested to. The language should be amended to read: “...the operator shall conduct a casing pressure test from the surface to at least 500 feet below the USDW or to the greatest depth feasible.”

<p>Response to Comments 0012-23 and 0004-3: ACCEPTED IN PART. <i>The language of subsection 1772.1 (a)(2) has been revised and the reference to the USDW has been removed. The casing pressure test must now be conducted from the surface to a depth that is 100 feet measured depth above the uppermost perforation or the casing shoe of the deepest cement casing or immediately above the top of the landed liner, whichever is highest.</i></p>
<p>0012-24, 0012-29 Wells that do not penetrate USDWs and wells that are more than one-half mile from a USDW should not be subject to casing pressure tests, at least not before the well becomes a long-term idle well. Similarly, wells in which the fluid level is below the lowermost USDW should be exempt from casing pressure testing altogether.</p>
<p>Response to Comment 0012-24: NOT ACCEPTED. <i>The potential hazards associated with idle wells are not limited to potential contamination of groundwater, and Public Resources Code section 3206.1 requires the Division to adopt appropriate regulations that verify the mechanical integrity of idle wells. Although it may be a lower priority to test an idle well if it clearly does not pose a threat to groundwater, pressure testing is needed to verify the mechanical integrity of the casing regardless of whether there is a known USDW or no fluid above the base of freshwater.</i></p>
<p>0013-3 The commenter seeks clarification about what baseline will be used to determine if “more frequent clean outs” are required under subsection 1772.1(a)(3).</p>
<p>Response to Comment 0013-3: ACCEPTED. <i>The Division may require more frequent clean outs if known field or geologic conditions indicate risk to the mechanical integrity of the well, such as a likely risk of casing shear or other damage which may block the operator’s ability to clean out the well to the Division-permitted depth.</i></p>
<p>0012-26 The requirement in subsection 1772.1(a)(3) to reach 25 feet below the uppermost perforation in the lowermost zone should be deleted. It is technically sufficient to reach the top of the uppermost perforation in this zone.</p>
<p>Response to Comment 0012-26: NOT ACCEPTED. <i>The cleanout tag is used to verify the operator’s ability to plug and abandon the well to the Division’s regulatory standards or, if the well is being returned to use, the operator’s ability to access a formation. If the operator cannot reach 25 feet below the uppermost perforation, it will be difficult to plug and abandon the well to regulatory standard, making the well higher risk. Similarly, if the operator cannot reach 25 feet below the uppermost perforation, it may be more difficult to access the formation to return the well to use.</i></p>
<p>0004-4 It is unclear how subsection 1772.1(a)(3) protects USDWs. “Idle wells that would require a cleanout likely do not have a bridge plug and thus would require one to perform a casing pressure test. However, additional rig intervention would then be required to remove the bridge plug and clean out to comply with this subsection. Operators will continually need to perform rig work on wells to pull and replace bridge plugs.” This subsection should be amended to delete the requirement to reach 25</p>

feet below the uppermost perforation in the lowermost zone, and replace it with 500 feet below the USDW.

0012-25

Cleanout tags should not be required in all cases, as they do not necessarily demonstrate mechanical integrity or contribute to protection of USDWs. In many cases, the depth of the well can be verified without having to clean out the well.

Response to Comments 0004-4 and 0012-25: NOT ACCEPTED. The clean out tag has several purposes in ensuring the integrity of an idle well: it verifies the total effective depth of the well, identifies the existence of any possible obstruction, and cleans out the obstruction. Wellbore shearing from subsidence or junk-in-hole could prevent the well from being abandoned to current standards because the entire wellbore may not be reached. If shearing or junk occurs above the completed interval and the zone cannot be reached for isolation with cement, then there is risk for fluid migration from the hydrocarbon zone to USDWs and freshwaters or vice versa. The clean out tag is used to identify shearing before the entire depth of the wellbore becomes inaccessible and to ensure an opportunity to address the well while it can still be abandoned to standard. Additionally, it requires operators to clean any junk, debris, or sand out of the wellbore on a regular basis to ensure access to the entire wellbore.

A successful clean out tag essentially means the operators can demonstrate that the well is free of obstructions all the way down to the permitted depth. To ensure that that clean out tags performed under subdivision (a)(3) accomplish this goal, the regulation specifies that the operator must use either open-ended tubing or a gauge ring of the minimum diameter of the tubing necessary to properly plug and abandon the well, and that the operator must at least reach 25 feet below the uppermost perforation in the lowermost zone not already abandoned. Verifying the effective depth of the idle well is necessary to indicate whether damage is developing within the wellbore, to ensure long-term idle wells are not degrading to the point that they pose a threat, and to ensure that it does not become infeasible to plug and abandon the well.

0002-3

The ultrasonic and magnetic flux survey logging and testing required in subsection 1772.1(a)(4) is costly and does not prevent additional corrosion. Operators should be allowed to batch treat those wells with corrosion treatment to prevent further deterioration and allow a period of time to add the wells to an operator's Idle Well Management Plan.

0012-27

Subsection 1772.1(a)(4) should be deleted. Ultrasonic or magnetic flux surveys are unnecessary and extremely costly. The prescribed mechanical integrity testing is adequate to determine the wellbore competency.

0013-4

Subsection 1772.1(a)(4) should be clarified because "an industry standard defining 'high risk of corrosion' does not exist, and the context of the term used in the section does not provide a clear description." To avoid duplicative or overlapping regulatory requirements, underground gas storage well operators should be directed to address this requirement in subsection 1726.3(c)(4) of the Underground Gas Storage regulation.

0008-7

Subsection 1772.1(a)(4) should be amended to delete the reference to subsidence because subsidence is already addressed in projects specific to underground injection control. Ultrasonic or magnetic flux surveys tell little about damage potentially resulting from subsidence.

Response to Comments 0002-3, 0012-27, 0013-4, 0008-7: ACCEPTED. Section 1772.1(a)(4) has been removed from the regulations.

0004-5

Subsection 1772.1(c) should be amended to allow 60 days rather than 30 days to submit copies of the test results to the Division. The change would be consistent with the proposed Underground Injection Control regulations and afford operators sufficient time to analyze the tests, prepare the reports, and submit the reports to DOGGR.

Response to Comment 0004-5: ACCEPTED IN PART. Where the fluid-level test shows that the fluid level is above a USDW, the test results must be submitted to the Division within 30 days. These results must be submitted to the Division within 30 days because these results trigger the requirement that within 90 days the first time that a fluid-level test indicates that the fluid level in the well is above the base of a USDW the operator must conduct a casing pressure test on the well. All other test results must be submitted within 60 days.

0004-1

The proposed regulations do not provide for temperature surveys to verify the mechanical integrity of the casing. The Division has allowed operators to use temperatures surveys in the past to verify the mechanical integrity of the casing. This is problematic for idle wells that are not plugged back and do not have a bridge plug set, conditions that are common amongst idle well inventory. To perform a casing pressure test on these idle wells, operators must rig up on the well and run a test packer into the hole to perform the casing pressure test.

Response to Comment 0004-1: ACCEPTED IN PART. Where an idle well has been inactive for many years, the wellbore fluid and the associated reservoir are often the same temperature, making it impossible to detect a temperature change associated with a mechanical integrity issue. While a temperature or noise log may show a static environment, the tests would be inconclusive with respect to competency of the well bore if the well bore does not have mechanical integrity and fluid inside and outside the well had stabilized. Temperature surveys can also fail to detect small leaks, where the temperature differential would be very small. The temperature can dissipate before changes in temperature could be recorded, making it impossible to detect any temperature differential, rendering the temperature survey inadequate.

An alternative mechanical integrity testing method may be approved by the Division to satisfy the pressure testing requirements on a case-by-case basis provided the method is at least as effective as pressure testing to demonstrate the integrity of the well.

1772.1.1 Pressure Testing Parameters

0005-3

The Division's current testing requirements should not be changed by these regulations. The proposed testing parameters outlined in subsection 1772.1.1(a)(4), are excessively restrictive and

not technically appropriate. The Division's longstanding parameters for casing pressure tests of idle wells requires the test be continuous for 15 minutes and with no more than a 10 percent decline in pressure. Similar regulatory allowances for a reduction in pressure or volume are used to test the mechanical integrity of pipelines.

The proposed testing parameters are not technically appropriate for two reasons. First, the presence of expanding air or changing temperature. Air can be directly introduced from the fill-up line after a dry installation. Also, some annuli are not full, and added fluid can aerate the fluid, requiring long wait times for the air bubbles to coalesce and rise to the top to be bled off. Second, thermal flux. Idle wells have attained a static condition after years of being idle. To conduct the pressure test additional fluid will have to be introduced to most idle wells. These fluids will typically be cooler than fluids already in the wellbore. Since the well is a closed system to the transfer of matter but is not closed to energy transfer there needs to be allowance in the testing requirements for associated pressure changes.

0008-4

It is unclear how the pressure testing parameters in subsection 1772.1.1(a)(4) have been proven to indicate the integrity of a wellbore. It does not appear from any technical documentation that the proposed testing regulations are appropriate. The commenter is unsure why the proposed idle well pressure testing requirements differ from the proposed underground injection control pressure testing requirements and why both appear to differ from the Division's current Standard Annual Pressure Test requirements.

0012-32

As proposed, the regulations would require the pressure test be continuous for 30 minutes, with no more than a five percent decline in pressure in the first 15 minutes, and no more than one percent additional decline thereafter during the second 15 minutes. The commenter understands the Division derived these values by halving the comparable time-period and pressure variances specified for casing pressure tests under the Underground Injection Control Program. This is "not a technically appropriate approach for idle wells, and the pressure bleed-off allowance in the standard is almost unachievable as written."

0012-33

The testing requirements for idle wells should be less stringent than for active injectors, which pose greater risk than idle wells. Under current industry standards, a pressure test is successful if during 15 minutes of continuous pressure testing the pressure gauge does not show more than a ten percent overall decline in pressure from the initial pressure. The commenter contacted Lawrence Berkeley and Lawrence Livermore National Laboratories to gather information about casing pressure testing criteria in other jurisdictions and did not identify any criteria comparable to those contained in the proposed regulations. The commenter recommends a standard stable pressure for a 15-minute test with no more than a ten percent variance after stabilization is reasonable and will effectively demonstrate the mechanical integrity of the tested casing.

0004-7

Subsection 1772.1.1(a)(4), should be amended to allow for a two percent decline as opposed to a one percent decline. The commenter notes that even a two percent decline in the last 15 minutes is difficult to achieve due to gases entrained in the fluid. Often tests need to be performed three to six times to purge the excess gas from the casing annulus. Even on a partially plugged well, it is difficult

to achieve a two percent decline over a 15-minute period. This type of decline is not typically indicative of a mechanical integrity issue, but rather thermal expansion of the casing and the fluid.

0013-5

Subsection 1772.1.1(a)(4) should be revised to be consistent with the proposed text for the updated Underground Injection Control regulations and in the final regulations for Underground Gas Storage, both of which prescribe: "The pressure test shall be continuous for one hour. A pressure test is successful if the pressure gauge does not show more than a 10 percent decline from the initial test pressure in the first 30 minutes and does not show more than a 2 percent decline from the pressure after the first 30 minutes in the second 30 minutes." This would ensure consistent pressure testing parameters across similar well regulations.

Response to Comments 0005-3, 0008-4, 0012-32, 0012-33, 0004-7, 0013-5: ACCEPTED IN PART. The proposed section provides operators regulatory flexibility to satisfy the pressure testing parameters. The pressure testing parameters address concerns voiced by operators about rig availability by providing multiple pressure testing parameters. In accordance with Public Resources Code, section 3206.1(a)(2), the testing parameters provide a framework to verify the mechanical integrity of idle wells, idle wells, and partially plugged wells that is informed by the potential risks posed by the wells.

The pressure testing parameters are designed to ensure that the well has integrity and that small leaks that would indicate a lack of well integrity are identified:

The pressure testing parameters have been modified to require a stabilized pressure for 30 minutes with no more than a three percent change from the initial pressure. These testing parameters are consistent with US EPA, Region 5 guidance for pressure testing class II injection wells. A 10% increase from the initial pressure is permitted for cyclic steam injection wells or steamflood injection wells. Operators will be responsible for ensuring the well has stabilized before beginning the test. These parameters are consistent with the requirements of the proposed Underground Injection Control regulations.

The regulations now offer several options for satisfying the pressure testing requirement. To satisfy the pressure testing requirements operators may utilize the Inert Gas Depression Test, alternate testing methods on a case-by-case basis when approved by the Division, and caliper surveys for low-priority wells.

0012-34

"The operator should be allowed to use a pressure gauge or comparable device that has been designed with appropriate sensitivity according to the manufacturer's specifications. Pressure gauges capable of achieving the level of accuracy specified in the proposed regulations (within one percent) are not readily available. This requirement also virtually eliminates the use of a chart recorder, a long-standing industry standard for recording pressure."

Response to Comment 0012-34: NOT ACCEPTED. The test must be recorded and the pressure gauge employed must be sufficiently accurate (within 1 percent) and of appropriate scale to effectively indicate whether the well passed or failed the pressure test. Gauges with this level of accuracy are commonly available. Specifications for analog gauges have been added to the regulations to clarify that a Barton chart recorder is an appropriate option. Where an analog device such as a Barton chart is used, the test pressure should be within the mid-range scale of the gauge.

<p>0007-4 Subsection 1772.1.1(a)(3) should be amended to reflect the accuracy terminology and verbiage used by a manufacturer of Barton Chart Records.</p>
<p><i>Response to Comment 0007-4: NOT ACCEPTED. This subsection refers to both digital and analog forms of recording. Where an analog device such as a Barton chart is used, the test pressure should be approximately within the mid-range scale of the gauge.</i></p>
<p>0001-3 Higher test pressure over a longer period of time with limited pressure bleed-off is unnecessary, unattainable and, in some cases, unsafe.</p>
<p><i>Response to Comment 0001-3: NOT ACCEPTED. The Division has carefully considered the pressure testing parameters. The testing requirements meet a regulatory need and are safe in real-world field conditions. The testing should not diminish the integrity of the well, unless the well is experiencing integrity deficiencies that should be remediated. The minimal pressure of 200 psi is necessary to identify the presence of any existing leaks and to demonstrate the near-future integrity of the casing. The operator may elect to pressure test at a high initial pressure, as the greater demonstration of mechanical allows the operator more time until repeat testing is required under section 1772.1(a)(2).</i></p> <p><i>An inert gas depression test may not be used to satisfy the pressure testing requirements of Sections 1752, 1772.1, or 1772.5 if the computed necessary pressure for testing the well is less than 500 psi. Given the difference of compressibility in gas and liquid and corresponding differences in pressure gradient, an inert gas depression test at 500 psi is roughly equivalent to a standard pressure test at 200 psi. This minimal pressure is necessary to identify the presence of any existing leaks and to demonstrate the near-future integrity of the casing. The inert gas depression testing parameters are designed to ensure the well has integrity and that small leaks that would indicate a lack of well integrity are identified.</i></p>

1772.1.2 Engineering Analysis for 15-Year Idle Wells

<p>0002-7,0008-3, 0012-35 As proposed, the engineering analysis would require operators to submit extensive, highly proprietary information concerning the status of the reservoir, reserves, oil and gas saturations, in-place volumes, estimated recoverable resources and other similar confidential information. This information is heavily guarded by operators and is not shared outside the organization unless expressly required by law. The commenter does not believe the PRC requires operators provide this type of information to the Division. Consistent with the Division’s historical practice, the Division’s review of these older long-term idle wells should be limited to the physical condition of the well and whether it can physically be returned to use. Economic factors relating to that decision should remain confidential. Whether a reservoir contains producible resources in economic terms is a judgment that should be left to the sole discretion of the operator. The risk of inadvertent disclosure of this information to the public is high. Should such disclosure occur, the operator would suffer irreparable harm, placing the State at considerable legal risk.</p>

Response to Comments 0002-7, 0008-3, 0012-35: ACCEPTED. This section has been significantly revised to remove the more detailed data requirements that are more likely to call for proprietary information. Public Resources Code section 3206.1, subdivision (a)(4), requires the Division to review, evaluate, and update its regulations pertaining to idle wells, including requirements for operators to submit an engineering analysis for idle wells that have been idle for 15 or more years. Section 1772.1.2 will provide effective criteria and protocols to determine whether idle wells that have been idle for 15 years or more are viable for future use or should be plugged and abandoned. The engineering analysis must demonstrate to the Division's satisfaction that the idle well is viable to return to operation in the future. Identification of the reservoir unit and demonstration of its relevant characteristics will still be required, but the operator will not be required to submit proprietary information regarding the reservoir unit. The operator will also be required to submit a statement of the potential future use for the well, and a representative electric log and structural contour map. If the operator believes that any information they are submitting should remain confidential by law, the operator should submit a request to keep the information confidential prior to submitting the information to the Division.

0007-5

The engineering analysis required in subsection 1772.1.2(a) should be provided to the Division prior to the well being idle for 15 years.

Response to Comment 0007-5: ACCEPTED IN PART. The language of this subsection has been changed to clarify that the engineering analysis will be due by the end of the month in which an idle well has been idle for fifteen years.

0012-36

For existing idle wells, the 48-month compliance period provided by subsection 1772.1.2(i) is not sufficient. The compliance period for submitting the engineering analysis should be the same as that provided for completion of idle well testing under section 1772.1 (10-12 years).

Response to Comment 0012-36: ACCEPTED IN PART. For wells that are idle for nine years or more as of the effective date, operators are not required to provide the engineering analysis until 60 days after the date pressure testing and a clean out tag on the well is scheduled in the operator's Testing Compliance Work Plan. But if the well has not been idle for 15 years at that point, then the engineering analysis is still not required until the end of the month in which the idle well has been idle for 15 years, whichever is later. Wells slated for plugging and abandonment on an Idle Well Management Plan or a Testing Waiver Plan are exempt from testing and the engineering analysis.

0002-8

Subsection 1772.1.2(h) should be amended to provide operators more time to plug and abandon a well deemed not viable. These wells should be prioritized alongside the rest of an operators' portfolio so that higher priority wells are eliminated first. If an operator does not have an Idle Well Management Plan, then the Division could retain the requirement to eliminate the well within 12 months.

Response to Comment 0002-8: ACCEPTED IN PART. Within 12 months of receiving a notice of final determination that the well is not viable to return to use, the operator may now schedule the well for plugging and abandonment under an approved Idle Well Management Plan or an approved Testing

Waiver Plan. This change will allow these wells to be prioritized according to the factors found in section 1772.4 along with the operator's other idle wells. If the operator does not have an Idle Well Management Plan or Testing Waiver Plan, the operator must plug and abandon the well within 12 months of receiving the notice of final determination.

1772.1.3 Casing Diagrams

0007-6

The casing diagram requires operators provide too much information and the information is likely to be misinterpreted or misread. It is unclear how WellSTAR will produce casing diagrams. The Division should create a form for operators to use to submit all of the required information.

0012-37

Section 1772.1.3 should be deleted. Preparation of wellbore diagrams by the operator, for the tens of thousands of wells at issue, would be hugely resource-intensive and costly. These diagrams will be redundant in many cases, especially given the Division's representation that WellSTAR can be used to generate wellbore diagrams, relieving operators of this burden.

***Response to Comments 0007-6 and 0012-37: NOT ACCEPTED.** A casing diagram is a valuable tool for effective oversight. The information required for the casing diagram is necessary for the Division's evaluation of whether the well is viable for future use considering the well's construction and condition. The casing diagram must be submitted because the Division's historical files are in many cases incomplete and/or inaccurate.*

An operator is only required to submit a casing diagram for wells that the operator submits a 15-year engineering analysis. The 15-year analysis is used to demonstrate to the Division's satisfaction that the well is viable to return the well to operation in the future. Wells scheduled for plugging and abandonment on an Idle Well Management Plan or a Testing Waiver Plan are exempt from the 15-year engineering analysis requirement, and are therefore also exempt from the casing diagram requirement.

The casing diagram must be submitted to the Division as a graphical casing diagram or flat file data set. The Division is currently working on creating a form that will facilitate submission of this data. WellSTAR is still in development and is not ready for inclusion in regulation. Once WellSTAR is fully realized, the graphical casing diagram or flat file data set can be incorporated into WellSTAR.

1772.2 Idle Well Testing Waiver Plan

0001-2, 0007-7, 0010-3, 0012-6

An operator should be allowed to include more than five percent of their total idle inventory under the Testing Waiver Program, exclusive of the wells that are already scheduled for elimination under an Idle Well Management Plan. The Testing Waiver Plan and Idle Well Management Plan should be treated as complimentary, allowing an operator to increase the total percentage of idle wells that may be plugged and abandoned in a calendar year.

The Division should also consider removing the reference to "small" to describe the amount of an operator's idle wells.

Response to Comments 0001-2, 0007-7, 0010-3, and 0012-6: ACCEPTED. *The Testing Waiver Program has been revised. Operators may now include any amount of their total idle well inventory on a Testing Waiver Plan. An Idle Well Testing Waiver Plan is a schedule for plugging and abandonment of idle wells that exempts those wells on the plan from the testing requirements of sections 1772.1, 1772.1.1, and the engineering analysis requirements of section 1772.1.2. Operators have flexibility to manage how many wells they address in each year of the plan, as long as at least 10 percent of the total number of wells on the plan are addressed in each year of the plan and no well is scheduled for plugging and abandonment more than eight years out. An eight-year limit is necessary to ensure that wells are not effectively deferred indefinitely. Each year that plugging and abandonment is deferred poses additional risks to the environment and risks that the wells will ultimately be deserted. Wells on a Testing Waiver Plan or Idle Well Management Plan are exempt from the requirements in sections 1772.1, 1772.1.1, or 172.1.2 for those wells.*

The Division removed the reference to “small.” No matter an operator’s idle well inventory, the operator may submit a Testing Waiver Plan and put as many of their idle wells on their Testing Waiver Plan as they wish.

0001-11

Operators with fewer than 20 wells cannot participate in the Idle Well Testing Program. “Therefore, it is recommended that at least one well be allowed to be included in an operator’s program.”

Response to Comment 0001-11: ACCEPTED. *The Testing Waiver Program has been revised. Operators may now include any amount of their total idle well inventory on a Testing Waiver Plan. However, no well may be scheduled for plugging and abandonment more than eight years out.*

0007-8

Subsection 1772.2(e) should be amended so that operators are not prohibited from submitting a waiver plan for five years if the original plan has been cancelled by the Division. Prohibiting an operator from submitting another plan is confusing and conflicts with the best interests of the operator and the Division in ensuring that testing is completed and preventing idle wells from becoming orphan wells. The subsection should be amended to read: “If the Division has canceled a Testing Waiver Plan, ~~then the operator shall not submit another plan for at least 5 years,~~ unless the operator first obtains the approval of the Division.” The remaining language “ensures DOGGR oversight, does not set an exemption of developing a plan acceptable to DOGGR based on an exemption period, and still ensures the division has oversight of well testing.”

Response to Comment 0007-8: ACCEPTED IN PART. *This subsection has been revised to remove the restriction prohibiting operators from submitting another Plan for at least five years. The Division may revoke a Testing Waiver Plan if the operator fails to comply with the plan. If the plan is revoked, the operator cannot submit another Testing Waiver Plan, unless and until the operator is in compliance with all of the requirements of Sections 1772.1, 1772.1.1, and 1772.1.2. This is necessary to encourage operators to prepare their plans based on the best information about their idle wells, to act while the information is still accurate, and to prevent avoidance of necessary testing that might result if an operator listed more idle wells than can actually be plugged and abandoned. Allowing operators to submit a new Testing Waiver Plan for approval if the operator comes into compliance is*

necessary to encourage operators to come into compliance but also encourage the operator to continue plugging and abandoning their idle wells.

1772.5. Requirements for Observation Wells

0012-38

In contrast to subsection (a), which is limited to observation wells that penetrate USDWs, subsection 1772.3(b) appears to require casing pressure tests for all observation wells without any exemption for wells that do not penetrate a USDW. Wells that do not penetrate a USDW, including observation wells, should be excluded from the casing pressure test as they propose no risk to groundwater.

***Response to Comment 0012-38: NOT ACCEPTED.** Subsection (a) has been removed from the proposed regulations. All active observation wells, including those that do not penetrate a USDW, must undergo a casing pressure test within six months of the well becoming an active observation well, unless a pressure test has been conducted on the well in the past five years. Proposed section 1772.5 would require operators to test and monitor the integrity of observation wells, which are by definition wells that penetrate a hydrocarbon reservoir, and therefore these non-operational wells are potential conduits between hydrocarbon zones and groundwater. As with idle wells, testing of observation wells is necessary to ensure integrity, although the risks associated with observation wells are lower due to the fact that they are regularly monitored. An effective testing regime to ensure that observation wells are not potential conduits for contamination of groundwater or dilution of hydrocarbon resources, is necessary to implement the Division’s statutory mandate under Public Resources Code section 3106 to prevent damage to life, health, property, and natural resources.*

0012-39

For existing observation wells, the 48-month compliance period provided by subsection 1772.3(c) is not sufficient to complete the required testing. The compliance period for completing testing of existing observation wells should be the same as that provided for completion of idle well testing under section 1772.1 (10-12 years) because these wells will be competing for the same resources. The confusing reference to wells that are “overdue for testing” should also be clarified.

***Response to Comment 0012-39: ACCEPTED IN PART.** The compliance period for existing observation wells has been revised. For wells approved as active observation wells as of the effective date of the regulations, the operator must conduct initial testing as described under section 1772.5(a) on at least half of the operator’s observation wells by April 1, 2021, and conduct testing on all the operator’s active observation well by April 1, 2023.*

As with idle wells, testing of observation wells is necessary to ensure integrity, although the risks associated with observation wells are lower due to the fact that they are regularly monitored. The regulations have been modified to reduce the burden on resources, especially rigs. Wells on an Idle Well Management Plan or a Testing Waiver Plan are now exempt from testing. The regulations also include alternative testing methods to satisfy the pressure testing requirements that can be done more quickly and cheaply than a casing pressure test, thereby alleviating some of the rig availability issues.

Subdivision (c) and the reference to “overdue” have been removed from the regulations.

0004-8

It is unclear under subsection 1772.3(b) what depth wells need to be pressure tested to. The language should be amended to read: "...the operator shall conduct a casing pressure test from the surface to at least 500 feet below the USDW or to the greatest depth feasible."

Response to Comment 0004-8: ACCEPTED IN PART. This subsection has been revised. The casing pressure test must be tested from the surface to a depth of 100 feet measured depth above the uppermost perforation, the casing shoe of the deepest cement casing, or immediately above the top of the landed liner, whichever is highest.

0013-6

There is no guidance on what qualifies an observation well as active or idle. There is not a process for designating a well an observation well. A process of designating a well an observation well should be added to this section for clarity and consistency.

Response to Comment 0013-6: NOT ACCEPTED. Active observation well is statutorily defined at PRC, section 3008, subdivision (c), as a well being used for the sole purpose of gathering reservoir data such as pressure and temperature. For a well to be an active observation well, the operator must demonstrate to the Division's satisfaction that the well fulfills a need for gathering reservoir data. An idle well is statutorily defined at PRC, section 3008, subdivision (d), as any well that for a period of 24 consecutive months has not either produced oil or natural gas, produced water to be used in production stimulation, or been used for enhanced oil recovery, reservoir pressure management, or injection. An idle well continues to be an idle well until it has been properly abandoned in accordance with section 3208 or it has been shown the Division's satisfaction that, since the well became an idle well, the well has for a continuous six-month period either maintained production of oil or natural gas, maintained production of water used in production stimulation, or been used for enhanced oil recovery, reservoir pressure management, or injection. An idle well does not include an active observation well.

To designate a well as an active observation well, the operator must demonstrate to the Division's satisfaction that the well fulfills a need for gathering reservoir data. The operator must provide the Division with a summary report of the type of data collected as least annually or as requested by the Division. For the purpose of determining whether an observation well is actually an idle well, production or injection data is subject to verification by the Division.

1772.6. Verification of Production or Injection

NO COMMENTS WERE RECEIVED ON THIS SECTION