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great or small, hovering on the brink of extinction.*

Via Express Mail and Electronic Mail

November 4, 2013

Stephen Klein
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Central Valley Regional Water Quality Control Board
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Re: Written Comments Regarding Tentative Resolution R5-2013-xxxx, Waiver of Reports of
Waste Discharge Requirements for Specific Types of Discharge within the Central Valley Region

Dear Mr. Klein:

The Center for Biological Diversity (the “Center”), Greenaction for Health and Environmental Justice, Sierra Club, the Center on Race, Poverty, and the Environment, the Association of Irrigated Residents, the Central California Environmental Justice Network, the San Joaquin Valley Latino Environmental Advancement & Policy Project, Earthworks, Physicians for Social Responsibility – Los Angeles, and Communities for a Better Environment (collectively, the “Commenters”) respectfully submit the following comments in response to the California Regional Water Quality Control Board Central Valley Region’s (the “Regional Board”) proposed approval of Waiver of Reports of Waste Discharge Requirements for Specific Types of Discharge within the Central Valley Region (the “Tentative Resolution”). The Center does so concurrently with its request to be considered a designated party under Title 23, California Code of Regulations, Section 647 et seq. and the Notice of Public Hearing issued by the Board September 26, 2013. The Center also reserves the right to submit supplemental written testimony at any time in advance of the December 5/6, 2013 public hearing, offer expert testimony as a designated party, and offer rebuttal testimony from the expert witness.¹

I. Introduction and Background

The Regional Board is considering the adoption of a Resolution (R5-2013-xxxx) that would extend for five years certain waivers to numerous types of waste discharge that would otherwise need to be monitored, reported, and made to meet minimal standards. These proposed waivers have been presented as an extension of existing waivers, adopted under Resolution R5-2008-0182. However, these waivers were adopted in 2008 and lapse on December 4, 2013.

The tentative Resolution would waive Reports of Waste Discharge (“RWD”) and Waste Discharge Requirements (“WDR”) for drilling muds and boring wastes, among other categories. But the proposed waiver does not adequately protect water quality and beneficial uses. Drilling muds and boring waste contain scores of chemicals that are harmful to human health and the environment and present a risk to

¹ Pursuant to 23 Cal. Code Reg. §§ 647.3 and 648.4.

water resources. By no means is drilling waste “innocuous,” as the Regional Board contends in its tentative Resolution.² The waivers would allow drilling muds to be discharged without the reporting, monitoring, or oversight requirements that apply to other types of waste discharge. Eliminating these basic safeguards would imperil water quality, ecosystems, wildlife, and human health and safety.

Furthermore, the Regional Board’s efforts to renew the waivers do not comply with the most basic of environmental procedural law. Its reliance on a 32-year-old Negative Declaration as the basis for finding that drilling muds present no significant risks to the environment is misguided and improper in light of what is known about drilling muds today.

Given the potential risks associated with drilling mud discharge, extending the waiver is inimical to the public interest and fails to comply with state law. No amount of drilling mud discharge can be considered safe to the environment or to public health. The Regional Board should reject the proposed Resolution that would adopt a blanket waiver for drilling muds and instead consider notices of intent to discharge drilling muds on a case-by-case basis. Furthermore, the 2008 waivers should be allowed to expire and the Regional Board should halt its practice of approving waivers for drilling muds until a full environmental impact report is completed.

II. The Designated Party

The Center is a national, nonprofit conservation organization with more than 625,000 members and online activists dedicated to environmental protection, including members directly impacted by the proposed Resolution. For over twenty-four years, the Center has been a strong advocate for the protection of air, water, soil, and wildlife and for the people affected by harmful environmental pollution. Should the Regional Board extend RWD and WDR waivers to drilling mud and boring wastes, it would directly affect the Center’s and our members’ ability to advocate for environmental protection.

III. Interested Parties

Greenaction for Health and Environmental Justice, Sierra Club, the Center on Race, Poverty, and the Environment, the Association of Irrigated Residents, the Central California Environmental Justice Network, the San Joaquin Valley Latino Environmental Advancement & Policy Project, Earthworks, Physicians for Social Responsibility – Los Angeles, and Communities for a Better Environment and their members will be directly affected by and/or have a direct organizational interest in the Tentative Resolution’s effects. These organizations are committed to protecting the environment, advocating for environmental justice, and safeguarding human health. The ability of these organizations and their members to advocate for environmental protection and public health would be substantially compromised if the Regional Board grants waivers to drilling mud discharge.

IV. Legal Background

Under California Water Code § 13260, any person proposing to discharge waste that “could affect the quality of the waters of the state” must submit RWDs³. Regional Boards use these RWDs to prepare permits known as waste discharge requirements (WDRs), which contain conditions for the discharge. The RWDs are supposed to contain sufficient information for the Regional Boards or the State Board to

² Regional Board Tentative Resolution R5-2013-xxxx at p. 3.

³ Cal. Water Code § 13260.

establish WDRs that assure that the water quality and beneficial uses of the State's waters are protected from harmful discharges.⁴ The Board can conditionally waive WDRs only if such waiver is not against the public interest.⁵ A Regional Board or the State Board can revoke waivers at any time, and no person may discharge waste without the issuance of a WDR.⁶

WDRs must comply with applicable water law and any relevant water quality control (or basin) plans that have been adopted. Compliance with these plans requires, at a minimum, that waste discharge permits ensure the protection of beneficial uses and the prevention of nuisance, including beneficial uses of state waters for recreation, aesthetic enjoyment, and the preservation of fish, wildlife, and other aquatic resources or preserves.⁷

In addition, any such waiver must include requirements for monitoring discharge to verify the adequacy and effectiveness of the waiver's conditions unless the Regional Board determines that the discharged waste "do not pose a significant threat to water quality."⁸

V. Drilling Mud and Boring Waste Discharge Are Potential Risks to Human Health and the Environment

Recent studies show that drilling mud and bore waste discharge contains scores of chemicals that are harmful to human health and present a risk to water resources. Increasingly, chemicals are being added to drilling mud used to drill the bore hole. The chemicals are added to increase the density and weight of the fluids in order to facilitate boring, to reduce friction, to facilitate the return of drilling detritus to the surface, to shorten drilling time, and to reduce accidents.⁹

Not all chemicals used in drilling muds are known to the public, but the chemicals that have been identified are associated with serious harm to human health. A study of drilling mud in Wyoming revealed 36 chemicals, all of which having at least one harmful human health effect.¹⁰ These chemicals included aluminum tristearate, Amoco-NT-45 process oil (Diesel 2), chromium, crystalline silica, distillates, drakeol, formic acid, gas oils (petroleum), lubricating oils (petroleum), monopenaerythritol, polyacrylamide/polyacrylate copolymer, sepiolite, xanthan gum.¹¹

The health effects from exposure to these chemicals include damage to skin, eye, and sensory organs, the respiratory system, the gastrointestinal system and liver, the brain and nervous system, the immune system, kidneys, and blood and the cardiovascular system.¹² Chemicals found in drilling mud also have been linked to cancer, endocrine disruption, mutagenic harm, ecological harm, and other types of harm.

⁴ Cal. Water Code §§ 13260, 13263.

⁵ Cal. Water Code § 13269

⁶ Cal. Water Code § 13264(a).

⁷ Cal. Water Code § 13241, 13050.

⁸ Cal. Water Code § 13269(a)(2), (3).

⁹ Colborn, Theo, *Natural Gas from a Public Health Perspective*, Human Ecol. Risk Assess. Vol. 17, 1039, 1044 (Sept. 2011) ("Colborn 2011")

¹⁰ Colborn, Theo, Written Testimony before the House Committee on Oversight and Government Reform, hearing on the Applicability of Federal Requirements to Protect Public Health and the Environment from Oil and Gas Development (Oct. 31, 2007) Appendix C, p. 1.

¹¹ See Colborn and Schultz, Chart listing chemicals found in drilling and drilling muds.

¹² Colborn 2011 at 1048,

Most chemicals have multiple health risks. A significant portion of the known chemicals can contaminate air, soil, and water through evaporation, solubility, and miscibility.

Drill cuttings, which may be produced concurrently with drilling mud and other boring waste, can also contain dangerous heavy metals such as aluminum, mercury, cadmium, arsenic, chromium, copper, lead, nickel and zinc.¹³ Exposure to these heavy metals can lead to numerous deleterious health effects for humans and wildlife. Several of these metals are listed as hazardous waste under California law.¹⁴ Other chemicals possess characteristics that qualify them as hazardous waste under California law definitions.

Drilling muds and boring waste may also contain naturally occurring radioactive material (“NORMs”) that are brought to the surface through drilling. Radioactive material such as radium has been discovered where oil drilling has occurred.¹⁵ In fact, the use of horizontal drilling, which the Regional Board acknowledges is becoming more prevalent, may increase the amount of radioactive material brought to the surface in drill cuttings and drilling muds.¹⁶ These too can potentially harm humans and wildlife through prolonged exposure.

VI. Waiving Requirements for Drilling Mud Is Against the Public Interest

The Water Code allows a state or regional board to waive reporting requirements only “if the state board or a regional board determines, after any necessary state board or regional board meeting, that the waiver is consistent with any applicable state or regional water quality control plan and is in the public interest.”¹⁷ Granting a waiver would be inconsistent with Section 13269 because drilling mud discharge puts water and public health at risk of exposure to harmful chemicals. Certainly, this cannot be in the public interest.

VII. Widespread Use of Unconventional Extraction Methods Will Increase the Amount of Drilling Mud and Boring Waste Discharge.

At the same time that more knowledge about the dangers of drilling mud has surfaced, California has seen an increase in drilling overall. Since the Regional Board’s last adoption of drilling mud discharge waivers in 2008, drilling operators in California have increased the use of unconventional oil and gas extraction techniques, including hydraulic fracturing and acidization. The federal Bureau of Land Management estimates that 90 percent of new wells on federal land employ hydraulic fracturing.¹⁸ These techniques allow producers to drill in areas that were previously infeasible or economically unviable. The Regional Board’s Staff Report acknowledges this increase, noting that the Regional board “has seen increases in oil and gas production [and] advances in oil and gas drilling technologies” such as horizontal drilling, acidization or hydraulic fracturing.¹⁹

¹³ U.S. Environmental Protection Agency, Ocean Discharge Evaluation for Beaufort Exploration NPDES General Permit (Oct. 2012) p. 3-6, Table 3-3.

¹⁴ See, e.g., 22 Cal. Code Reg. § 66261.24 (listing several chemicals considered hazardous waste).

¹⁵ Morgan, Rachel, “Isn’t This Radiation Naturally Occurring?” Timesonline.com (Jan. 27, 2013); Warner et al. “Impacts of Shale Gas Wastewater Disposal on Water Quality in Western Pennsylvania” Environ. Sci. Technol. (Oct. 2013) available at <http://pubs.acs.org/doi/pdf/10.1021/es402165b>.

¹⁶ See White, E. Ivan, “Consideration of Radiation in Hazardous Waste Produced from Horizontal Hydrofracking” (October 2012).

¹⁷ Cal. Water Code § 13269.

¹⁸ 77 Fed. Reg. 27691, 27693 (May 4, 2011).

¹⁹ Central Valley Water Board Staff Report for Resolution R5-2013-xxxx (Sept. 26, 2013) p. 5.

This increase in drilling opportunities will inevitably increase the aggregate amount of drilling mud and boring waste that is discharged. It is also possible that the chemical composition of drilling muds has changed in the five years that have passed since the 2008 waivers were adopted. Yet the Regional Board has shown no evidence of assessing whether these new drilling technologies will change the composition or volume of drilling muds or whether they will increase the potential for harm to water quality and human health. The Regional Board must fully evaluate the impact of new extraction techniques before it can adequately assess the risks of drilling mud to the Central Valley Region.

VIII. The Proposed Waivers Do Not Comply with CEQA Requirements

The Regional Board's proposed Resolution fails to meet requirements under the California Environmental Quality Act (CEQA).²⁰ The Regional Board claims that its renewal of RWD and WDR waivers satisfy CEQA by relying on a Negative Declaration adopted in December of 1981.²¹ The Regional Board further argues that a subsequent environmental review is not required. Both these claims are erroneous.

The Legislature enacted CEQA to "[e]nsure that the long-term protection of the environment shall be the guiding criterion in public decisions."²² The Supreme Court has repeatedly held that CEQA must be interpreted to "afford the fullest possible protection to the environment."²³ CEQA also serves "to demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action."²⁴ If CEQA is "scrupulously followed," the public will know the basis for the agency's action and "being duly informed, can respond accordingly to action with which it disagrees."²⁵ Accordingly, CEQA "protects not only the environment but also informed self-government."²⁶

CEQA applies to all "discretionary projects proposed to be carried out or approved by public agencies."²⁷ Before taking any action, a public agency must conduct a "preliminary review" to determine whether the action is a "project" subject to CEQA.²⁸ A "project" is "the whole of an action" directly undertaken, supported, or authorized by a public agency "which may cause either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment."²⁹ Under CEQA,

²⁰ Pub. Res. Code §§ 21000 et seq. and Cal. Code of Reg. §§ 15000 et seq.

²¹ Tentative Resolution at 3, citing Resolution 82-036, adopting Negative Declaration. This Negative Declaration was not made available as part of the Notice of Public Hearing nor was it included in the list of documents available on the State and Regional Board's website, depriving the public of the opportunity to fully assess the Regional Board's evaluation of the impacts of drilling muds. The Center has made a request to obtain the Negative Declaration and all other documents relied upon for the Tentative Resolution. Although the Center received the documents on October 31, 2013, and despite the extension of the comment submission deadline until Nov. 4, 2013, the Center has not had adequate time to review the Negative Declaration and other documents to fully incorporate them into these comments.

²² *No Oil, Inc. v. City of Los Angeles*, 13 Cal. 3d 68, 74 (1974).

²³ *Wildlife Alive v. Chickering*, 18 Cal. 3d 190, 206 (1976) (quotation omitted).

²⁴ *Laurel Heights Improvement Ass'n v. Regents of Univ. of Cal.*, 47 Cal. 3d 376, 392 (1988).

²⁵ *Id.*

²⁶ *Id.*

²⁷ Pub. Res. Code § 21080(a).

²⁸ See *Muzzy Ranch Co. v. Solano County Airport Land Use Comm'n*, 41 Cal. 4th 372, 380 (2007).

²⁹ Pub. Res. Code § 21065; CEQA Guidelines § 15378(a).

“the term ‘project’ refers to the underlying activity and not the governmental approval process.”³⁰ The definition of “project” is “given a broad interpretation in order to maximize protection of the environment.”³¹

Where, as here, there is substantial evidence to support a fair argument that the waivers for drilling mud discharges may have a significant effect on the environment, preparation of an EIR is required.³² This “fair argument” test “establishes a low threshold for initial preparation of an EIR, which reflects a preference for resolving doubts in favor of environmental review.”³³

The proposed Resolution must be analyzed as such under CEQA. There is no valid basis for the Regional Board’s proposed reliance on a 32-year-old Negative Declaration for a different project approved in 1981.³⁴ Even if, however, the Regional Board could otherwise rely upon a previous CEQA document in this instance, clearly the circumstances mandate preparation of additional CEQA review regardless.

Under the California Code of Regulations, a lead agency “shall prepare a subsequent EIR” if “changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration.”³⁵ The lead agency must re-evaluate environmental impacts based on any of the following:

(1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of *new significant environmental effects or a substantial increase in the severity of previously identified significant effects*;

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the *involvement of new significant, environmental effects or a substantial increase in the severity of previously identified significant effects*; or

(3) *New information of substantial importance*, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:

(A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

(B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

(C) Mitigation measures or alternatives previously found not to be feasible would in fact

³⁰ *California Unions for Reliable Energy v. Mojave Desert Air Quality Mgmt. Dist.*, 178 Cal. App. 4th 1225, 1241 (2009) (quoting *Orinda Ass’n v. Bd. of Supervisors*, 182 Cal. App. 3d 1145, 1171-72 (1986)).

³¹ *Lighthouse Field Beach Rescue v. City of Santa Cruz*, 131 Cal. App. 4th 1170, 1180 (2005) (internal quotation omitted).

³² Pub. Res. Code §§ 21100, 21151; CEQA Guidelines § 15064(a)(1), (f)(1); *Communities for a Better Env’t v. South Coast Air Quality Mgmt. Dist.*, 48 Cal. 4th 310, 319 (2010); *No Oil, Inc.*, 13 Cal. 3d at 82.

³³ *Architectural Heritage Assn. v. County of Monterey*, 122 Cal. App. 4th 1095 (2004).

³⁴ Nor can the proposed Resolution be considered merely an extension of Resolution R5-2008-0182, since it will have expired by the time the proposed Resolution could be adopted.

³⁵ 14 Cal. Code Reg. § 15162(b).

be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

(D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.³⁶

Most, if not all, of these circumstances under which a lead agency must conduct a subsequent EIR apply to drilling muds discharge. Oil and gas drilling has undergone significant changes in technology in the 32 years since the previous Negative Declaration was issued. The Regional Board admits that, even in the last 5 years, considerable changes to drilling technology have changed the oil and gas industry.³⁷

The advent and widespread use of horizontal drilling, hydraulic fracturing, and acidization certainly constitute “substantial changes” from the oil and gas projects considered under the 1981 Negative Declaration. These technologies also bring “new significant, environmental effects or a substantial increase in the severity of previously identified significant effects.”³⁸ New studies documenting the harmful chemical constituents used in modern drilling muds also qualify as “new information of substantial importance” that requires the Regional Board to re-evaluate the true extent of environmental risks of discharging drilling muds.

Moreover, the requirement to renew a waiver every five years was passed in 1999 as an amendment to the Porter-Cologne Water Quality Control Act in direct response to abuse of waiver approvals by various regional water boards.³⁹ Legislative history points specifically to the Central Valley Regional Board, which waived requirements for many types of discharge without adequate conditions to safeguard the public interest.⁴⁰ Given the legislative purpose of re-evaluating waivers and their conditions, it is contrary to the California Water Code to renew a waiver without re-examining the environmental impact of activities covered under the waiver.

IX. The State Water Resource Control Board’s General Waivers Are Outdated and Unreliable

The Regional Board points to the State Water Resources Control Board Water Quality Order No. 2003-0003-DWQ as evidence that a waiver for drilling mud is appropriate. The General Waivers granted to drilling mud under the State Order, however, should not be relied upon to correctly assess the potential harm from drilling mud. First, it does not appear as if the State Board has renewed the 2003 State Order. Without renewing the waivers set forth in that order, the waivers expire five years after passage.⁴¹ In this case, the State Order would have expired in 2008. The Regional Board should not arbitrarily adopt conditions from an expired State Board Order.

³⁶ 14 Cal. Code Reg. § 15162(a) (emphasis added).

³⁷ Tentative Resolution at 3; Staff Report at 5.

³⁸ 14 Cal. Code Reg. § 15162(a)(1) and (2).

³⁹ See Senate Bill 390 (Alpert) Bill Analysis, Senate Floor Analysis at 4 (June 2, 1999).

⁴⁰ Id.

⁴¹ Cal. Water Code 13269(a)(2) (“A waiver may not exceed five years in duration, but may be renewed by the state board or a regional board”).

The State Order also includes analysis that may have been questionable in 1981, but is clearly erroneous today. The State Order describes drilling mud discharge as having the “lowest threat to water quality,” and that the environmental impacts are “less than significant.”⁴² It bases these conclusions on a Negative Declaration that was issued in 1981.⁴³ Since that time, studies such as those by Dr. Theo Colborn, cited above, have revealed the dangerous chemicals used in drilling muds. The State Order, though issued in 2003, still relied on the outdated Environmental Assessment and Negative Declaration and did not incorporate newer scientific studies documenting drilling muds’ chemical content.⁴⁴

The Negative Declaration asserts that categories of discharge that are granted a waiver are “generally small in volume and non-toxic.”⁴⁵ It also concludes that drilling mud discharge will have “no adverse water quality impacts.”⁴⁶ As explained above, the knowledge regarding drilling muds and its harmful constituents has progressed since the last time the Regional Board examined drilling muds over three decades ago. Yet the State Board’s 2003 waivers rely on this outdated and unreliable document. The Regional Board, in turn, justifies its proposed 2013 waivers on the fact that the State Board has similar waivers in place. Neither the Regional nor State Board acknowledges that the Negative Declaration that lacks any serious chemical analysis or evaluation of the potential harm to water quality and human health.

The State Board could not reasonably grant a general waiver for drilling muds under its own standards if it were to account for the hazardous chemicals that have been found. For example, the State Order acknowledges that “discharges that could have a significant impact on Biological Resources, Cultural Resources, Aesthetics, [or] Air Quality or that could significantly alter the existing drainage pattern of the discharge site or surrounding area” are ineligible for waivers.⁴⁷ The chemicals used in drilling muds certainly have the potential to have a significant impact in each of these areas.

Similarly, the State Order prohibits discharges that “cause pollution, contamination, or nuisance” as defined by California Water Code Section 13050.⁴⁸ The known chemicals in drilling mud are a potential cause of pollution, contamination, or nuisance, and thus the State Order’s waiver should not be applied to drilling muds.

The State Order also prohibits the discharge of waste classified as “hazardous” or “designated” under Title 22 Cal. Code of Regulations, Section 66261 and Cal. Water Code Section 13173.⁴⁹ Section 66261 lists several of the heavy metals contained in drilling muds as being hazardous, including arsenic, cadmium, nickel, copper, lead, mercury, and zinc. The California Water Code’s “designated” waste

⁴² State Order (2003), p. 2 and 3.

⁴³ See California Regional Water Quality Board, Central Valley Region, Environmental Assessment for Waiving Waste Discharge Requirements for Specific Types of Discharge (Dec. 23, 1981) (the “Negative Declaration”)

⁴⁴ The Regional Board adopted the findings in the Negative Declaration in Resolution No. 82-036, concurring that “there are no significant adverse water quality impacts” from drilling muds. (March 26, 1982).

⁴⁵ Negative Declaration at 1.

⁴⁶ Id.

⁴⁷ State Order at 3.

⁴⁸ State Order at 4. The California Water Code defines pollution as “alteration of the quality of the waters of the state by waste to a degree which unreasonably affects ... the waters for beneficial uses”; contamination as “; nuisance as “injurious to health, or is indecent or offensive to the senses..., Affects at the same time ... any considerable number of persons..., and occurs during, or as a result of, the treatment or disposal of wastes. § 13050, and (m), respectively.

⁴⁹ State Order at 4.

include those materials that “could reasonably be expected to affect beneficial uses of the waters of the state as contained in the appropriate state water quality control plan.”⁵⁰ Drilling muds contain chemicals that fit squarely within this definition and therefore would be prohibited if the State Order were properly applied to such discharges. Thus, the Regional Board cannot reasonably base its drilling mud waivers on the State Order.

X. The Four Existing Waiver Conditions Are Not Sufficient to Protect Water Quality

The Regional Board proposes to incorporate the four existing waiver conditions for drilling muds into the new Resolution. A person must meet all four of these existing conditions before discharging drilling mud waste. These conditions, however, either (1) cannot be met by drilling mud dischargers, or (2) do not adequately protect water quality even when met.

- A. Requirement that drilling operations must come from uncontaminated soils: Drilling mud contains harmful substances regardless of whether the soil is contaminated. Satisfying this condition does not protect waters or public health.
- B. Requirement that drilling mud must be non-hazardous and contain no halogenated solvents: As described above, drilling mud contains heavy metals and other hazardous material with well documented human health effects. It would be extremely unlikely, if not impossible, for a person discharging drilling mud to meet this criterion. Furthermore, the Regional Board fails to define what constitutes a “non-hazardous” drilling mud. In addition, non-halogenated solvents can still present a risk to human health. Therefore, a waiver based on this condition is inappropriate.
- C. Requirement that, prior to burial, drilling muds must first be dried, the site restored to “pre-sump conditions,” and the muds must be covered with at least one foot of clean compacted soil: Drilling muds stored in sumps can pose a risk to the environment and human health. Chemical fluids stored on site can harm wildlife. Fluids may also spill and contaminate surface water from improperly constructed sumps or lining or as a result of heavy rains and runoff. Furthermore, the requirement of restoring a site to “pre-sump” conditions cannot be met by drilling operators. Prior to constructing a sump and using drilling muds, the site did not contain hazardous waste. Short of removing all hazardous waste from the site, an operator cannot meet this requirement due to the harmful constituents of drilling muds. Finally, the Regional Board provides no evidence to show that one foot of compacted soil is sufficient to protect water quality or human health.
- D. Requirement that sump must be greater than 100 ft from nearest surface water and bottom of the sump must be at least 5 feet above the highest anticipated groundwater level: The Regional Board has provided no evidence that 100 feet is an adequate distance from surface water to discharge drilling mud. Spills and runoff can travel more than 100 feet and contaminate surface waters. Similarly, the requirement that drilling muds be discharged 5 feet above groundwater levels. The conditions do not include a freeboard minimum to help retain drilling muds within a sump, increasing the likelihood of a spill or runoff. There is also no restriction as to the concentration of toxic chemicals, the size of the sump, or the number of sumps per aquifer or per oil field.

Conspicuously missing is any limitation on the volume of drilling mud allowed to be discharged. In ignoring the issue of allowable quantity, the Regional Board is implying that any amount of discharge, no

⁵⁰ Cal. Water Code § 13173(b).

matter how great, will have no impact on water quality. This simply cannot be true. A waiver based on such reasoning would be clearly erroneous, and contrary to the evidence before the Regional Board. The Regional Board also fails to define what it means by discharges that are “of such good quality and of limited volume/duration that coverage under the Statewide General Order for low threat discharges is not necessary.”⁵¹ The Regional Board should be clear as to what a limited volume and duration means.

XI. The Four Additional Conditions Are Insufficient to Protect Water Quality and Human Health

The Tentative Resolution, in Attachment A, lists four additional conditions that the Regional Board proposes to add. Dischargers would be required to meet one of the four new conditions to qualify for a waiver. However, the condition that dischargers meet one of these new conditions before discharging drilling muds does not adequately protect water quality or human health.

- A. The Electrical Conductivity of the drilling mud may not exceed that of underlying groundwater by more than 500 µmhos/cm: A low electrical conductivity of drilling mud does not ensure that drilling mud will have no impact on water quality or human health. Drilling muds still contain harmful chemicals that may contaminate nearby waters and harm human health. Moreover, the electrical content does not reduce the likelihood of spills and runoff.
- B. The first encountered fluid beneath the discharge is an “exempted aquifer”: That the first fluid beneath the discharge is an exempted aquifer does not ensure that water quality and human health will be protected. Spills and runoff can transport runoff to waters that are not directly beneath the discharge site. Evaporation can also carry harmful pollutants to waters outside the immediate vicinity of the discharge. As mentioned above, there is also no limit to the number of sumps per aquifer. The Regional Board must also consider whether the discharge site may affect an aquifer recharge area. Such areas are connected distant aquifers and may affect the quality of other aquifers if contaminated.
- C. The first encountered fluid beneath the discharge is naturally occurring hydrocarbons: Similarly, this condition does not ensure the protection of water quality or human health. Drilling muds may migrate to waters outside the discharge site. The Regional Board provides no information as to how this condition will adequately protect water quality and human health. The Regional Board should also provide information regarding what areas this condition is likely to occur.
- D. The drilling operation is in an area that 1) a third-party, board, or other group is actively pursuing a basin plan amendment to de-designate or modify the beneficial use through the CV-SALTS process; and 2) the third-party provides the required information indicating that it is reasonably likely that the beneficial use is not appropriate in the area of the proposed de-designation: This final option to satisfy the newly added conditions substantially erodes water protection regulations. First, it allows operators to discharge drilling muds merely by initiating an amendment to a basin plan, no matter how irresponsible or outlandish the request of de-designation or modification may be. The condition does not require that the Regional Board approve the de-designation or modification, only that a party “actively pursue” the change. Any party hoping to discharge drilling mud without oversight could simply initiate a petition to de-designate a beneficial use and meet this condition. The second part of the requirement, that the third-party provide information that it is reasonably likely that the beneficial use is not appropriate, only invites abuse by dischargers. The same party with an incentive to discharge drilling mud waste without meaningful restrictions may submit information on how the discharge will not affect beneficial uses of water. It should be obvious that such information is

⁵¹ Tentative Resolution at 4

likely to be highly biased and unreliable.

Furthermore, the requirement creates a circular logic that defeats water protection. A party may argue that de-designation of a beneficial use is appropriate because of the increase of drilling mud discharge and other oil and gas activity. But beneficial uses are put in place precisely to protect waters from pollution-intensive activity like drilling mud discharges. In essence, drillers would support de-designation with evidence of their own pollution.

XII. The Conditions Do Not Include Monitoring or Reporting

“The conditions of the waiver shall include, but need not be limited to, the performance of individual, group, or watershed-based monitoring...” Cal. Water Code § 13269(a)(2). Such conditions are critical for the Regional Board and the public to make informed decisions about water use and environmental protection. Though inadequate for other reasons, even the State Order requires a discharge monitoring plan to be submitted as a requisite part of a notice of intent to discharge.⁵²

The monitoring plan under the State Order must include (1) all pollutants believed to be in the discharge, (2) the concentration of the pollutants, (3) monitoring locations, (4) monitoring frequencies, and (5) a report schedule.⁵³ In contrast, the Regional Board’s tentative Resolution contains none of these monitoring requirements. Without such information, the Regional Board could not possibly maintain proper oversight and make reasoned decisions concerning discharged drilling mud waste in the Central Valley.

The recently revealed video footage⁵⁴ of illegal discharging filmed by a concerned citizen in Shafter, California, exemplifies the need for greater monitoring and reporting. Though the Regional Board has since investigated the incident, the Regional Board would not have known about these violations without the help of independent citizens capturing the acts on video. It is probable that, without greater monitoring, numerous other violations will occur and remain unreported.

While the Water Code does allow a regional board to waive the monitoring requirements “for discharges that it determines do not pose a significant threat to water quality,”⁵⁵ the known chemicals used in drilling muds, in addition to the potential harms from still unknown chemical constituents, certainly pose a significant threat and are therefore ineligible for a waiver. A Resolution that does not include clear reporting and monitoring requirements is contrary to established California laws and regulations.

In addition, the Tentative Resolution fails to include reporting requirements mandated by the Water Code: “A person discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the state, other than into a community sewer system” must first submit a report of waste discharge (“ROWD”) to the appropriate water quality board.⁵⁶ They must also report “any material change or proposed change in the character, location, or volume of the discharge.” Cal. Water Code § 13260(c). Under the Tentative Order, dischargers only need to submit technical and

⁵² State Order at 5-6.

⁵³ Id.

⁵⁴ Available at <http://www.youtube.com/watch?v=mx671gbmkY&feature=youtu.be>

⁵⁵ Cal. Water Code § 13269(a)(3).

⁵⁶ Cal. Water Code § 13260(a)(1).

monitoring reports at the discretion of the Executive Officer in connection with individual inspections, should any such inspections occur. There is no assurance that a discharger will report any information aside from the initial information demonstrating a waiver is applicable.⁵⁷

The Tentative Resolution provides no guidance as to what information is considered sufficient to support a determination that a waiver should apply to the discharge. It is unclear how the Regional Board can decide, for example, that there are no hazardous wastes in the drilling mud discharge when drillers are not required to disclose a list of chemicals that they are using for their operations. Without such safeguards, the Regional Board's decisions on granting waivers is simply arbitrary.

XIII. The Waivers Do Not Meet the Central Valley Water Quality Objectives

The Regional Board is tasked with meeting certain objectives under its Water Quality Control Plan (Basin Plan) for the Sacramento and San Joaquin River Basins. These objectives require the Regional Board to work towards or protect certain levels of water quality in terms of toxicity, bacterial content, turbidity, and many other criteria.⁵⁸ The proposed Resolution is inconsistent with achieving these objectives.

XIV. DOGGR's Inspections and Oversight Do Not Protect Water Safety or Public Health

The Regional Board relies on "routine inspections" conducted by the California Division of Oil, Gas, and Geothermal Resources ("DOGGR") to support its contention that a waiver renewal is appropriate.⁵⁹ This reliance is misplaced. DOGGR does not have the resources to inspect each discharge site. Additionally, DOGGR relies on state and regional water boards to regulate the disposal of drilling muds. In fact, DOGGR routinely issues Negative Declarations regarding the impact of drilling muds by citing regional water board regulations. For example, DOGGR issued a Mitigated Negative Declaration for the Bloemer and Kirschenman Oil Well Project, a six-well drilling and production project in Edison, California, by relying on the Regional Board's Resolution R5-2008-0182.⁶⁰ Thus, DOGGR declares that the Regional Board is adequately protecting the environment to justify its approvals while the Regional Board conversely states that DOGGR will protect the environment. In reality, neither agency has regulations in place that will adequately protect water quality or public health.

XV. Central Valley Regional Water Quality Control Board Must Comply with State and Federal Civil Rights Laws

As a recipient of federal and state funding, the Regional Board is subject to and must comply with state and federal civil rights laws. California Government Code, section 11135 prohibits discrimination under any program or activity that receives any financial assistance from the state. An agency violates section 11135 if it receives state funding and takes an action that results in a significantly adverse or disproportionate impact on minorities.

Title VI of the United States Civil Rights Act prohibits discrimination on the basis of race, color or national origin under any program or activity that receives federal financial assistance. Section 601

⁵⁷ Tentative Resolution, Attachment A at 1.

⁵⁸ Central Valley Regional Water Quality Control Plan (Basin Plan), available at http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr.pdf

⁵⁹ Staff Report at 6.

⁶⁰ DOGGR, Initial Study/Mitigated Negative Declaration, Applicant Nalftex Operating Company at 3 (Aug. 9, 2013).

provides that “[n]o person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.” Therefore, actions by the Regional Board cannot disproportionately have a negative impact on people of color and non-English speakers who are impacted by fracking operations and the proposed agency action.

People of color and non-English speaking residents living in areas in the Central Valley near drilling operations are disproportionately impacted by the pollution from this industrial activity. The CalEnviroScreen cumulative impacts study and methodology developed by the California EPA and the Office of Environmental Health Hazard Assessment has identified many communities of color in the Central Valley that are the most vulnerable and at-risk from pollution. Many of these areas are the locations in which oil and gas activity is taking place.

In addition, it appears that the proposed agency action will be adopted without translation of relevant documents into Spanish, the language spoken by many residents in many of the communities where fracking is occurring. None of the documents posted on the Regional Board’s website are available in Spanish. Having documents only in English, and holding a public hearing in Rancho Cordova hundreds of miles away from many of the most affected communities, improperly denies the people of color and non-English speaking residents directly and disproportionately affected by your proposed action their right to meaningful participation in this decision.

Thus, Title VI and California Government Code 11135 would both be violated by the Regional Board if it allows companies to discharge dangerous drilling muds all across the Central Valley, especially without a full review of the effects of drilling muds on water quality and human health on a case-by-case basis. The Water Board would also violate civil rights laws if it approves this proposed action without adequate translation of key permit documents and without providing meaningful opportunities for public participation for those most affected by the agency’s proposed action.

XVI. Conclusion

In sum, the risks of environmental harm caused by drilling mud discharge have become more understood since the 1981 Negative Declaration, making the findings in that study irrelevant and outdated for the Regional Board’s 2013 regulations. New advances in drilling and extraction techniques have made drilling mud waste more dangerous and more widespread. Under these circumstances, the Regional Board must not renew the 2008 waivers that allow dischargers to release drilling muds into the environment with minimal restrictions. Instead, the Regional Board must conduct a new environmental impact report and include new information that has become available. Until that study is completed, the 2008 waivers should be allowed to expire, and the Regional Board should prohibit waivers for drilling muds.

Thank you for the opportunity to comment. We look forward to speaking with you at the Public Hearing in December.

November 4, 2013

Respectfully submitted,

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(On behalf of the Designated and Interested Parties)