CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD CENTRAL VALLEY REGION

SETTLEMENT AGREEMENT AND STIPULATION FOR ENTRY OF ADMINISTRATIVE CIVIL LIABILITY ORDER R5-2014-0535 IN THE MATTER OF OCCIDENTAL OF ELK HILLS, INC. KERN COUNTY

This Settlement Agreement and Stipulation for Entry of Administrative Civil Liability Order (Stipulated Order or Order) is entered into by and between the Assistant Executive Officer of the California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board), on behalf of the Central Valley Water Board Prosecution Team (Prosecution Team), and Occidental of Elk Hills, Inc. (Discharger) (collectively known as the Parties) and is presented to the Central Valley Water Board, or its delegee, for adoption as an order by settlement, pursuant to Government Code section 11415.60.

Recitals

- 1. On 15 November 2013, Central Valley Water Board issued California Water Code Orders pursuant to Section 13267 (Section 13267 Order) to multiple owners and operators of oil and gas exploration and production operations in the region. The Discharger was a recipient of one of the Section 13267 Orders. The Section 13267 Order sought information about the: (1) discharges of drilling fluids to land (i.e., including sumps), and (2) discharges of well completion and/or workover fluids to land at any company well during the reporting period from 1 January 2012 to the date the Orders were issued.
- On 11 March 2014, the Discharger submitted a technical report entitled Drilling Sump Report and Information Spreadsheet; Occidental of Elk Hills, Inc.; Response to Section 13267 Directive (Response) to the Central Valley Water Board staff. On 24 April 2014, the Discharger submitted a second technical report entitled Supplemental Information Request Drilling Sumps 13267 Directive; Occidental of Elk Hills, Inc.; Response to Section 13267 Directive (Supplemental Response) to the Central Valley Water Board staff.
- 3. After receiving and reviewing the Discharger's Response and Supplemental Response, the Prosecution Team was able to evaluate whether the materials discharged to the sump posed a threat to water quality, the estimated amount of materials that were discharged, and whether or not such Discharger's activities were included in the General Waiver Resolution R5-2008-0192 (Waiver Resolution), which covers the discharge of drilling muds and boring wastes.
- 4. Based on the Response, Supplemental Response, and an independent evaluation by the Central Valley Water Board staff, 1,375 barrels (57,750 gallons) of fluids were discharged to unlined sumps from ten wells during either completion or stimulation phases.

Regulatory Considerations

- 5. The Central Valley Water Board staff has concluded that the Discharger has violated Water Code section 13350 for unpermitted discharges to land. The Central Valley Water Board may assess administrative civil liability based on Water Code section 13350 for such discharges.
- 6. Water Code section 13350(a) states: "(a) A person who (1) violates a cease and desist order or cleanup and abatement order hereafter issued, reissued, or amended by a regional board or the state board, or (2) in violation of a waste discharge requirement, waiver condition, certification, or other order or prohibition issued, reissued, or amended by a regional board or the state board, discharges waste, or causes or permits waste to be deposited where it is discharged, into the waters of the state ..."
- 7. Water Code section 13350(e)(2) states: "The state board or a regional board may impose civil liability administratively pursuant to Article 2.5 (commencing with Section 13323) of Chapter 5 either on a daily basis or a per gallon basis, but not on both. (2) The civil liability on a per gallon basis shall not exceed ten dollars (\$10) for each gallon of waste discharged."
- 8. Water Code section 13327 states: "In determining the amount of civil liability, the regional board . . . shall take into consideration the nature, circumstance, extent, and gravity of the violation or violations, whether the discharge is susceptible to cleanup or abatement, the degree of toxicity of the discharge, and, with respect to the violator, the ability to pay, the effect on ability to continue in business, any voluntary cleanup efforts undertaken, any prior history of violations, the degree of culpability, economic benefit or savings, if any, resulting from the violation, and other matters as justice may require."

Settlement

- 9. The Parties have engaged in confidential settlement negotiations and agree to settle the matter without administrative or civil litigation and by presenting this Stipulated Order to the Central Valley Water Board, or its delegee, for adoption as an order by settlement pursuant to Government Code section 11415.60. The Central Valley Water Board Prosecution Team believes that the resolution of the alleged violations is fair and reasonable and fulfills its enforcement objectives, that no further action is warranted concerning the violations alleged herein and that this Stipulated Order is in the best interests of the public.
- 10. The Parties are agreeing to a reduction from the maximum penalty of \$10 per gallon for each gallon discharged to an amount of \$6 per gallon of discharge. After consideration of the penalty calculation factors, found in the State Water Resources Control Board's (State Water Board) Water Quality Enforcement Policy, the Parties agreed that the volume amount of \$6 per gallon was appropriate in order to resolve their dispute and given the potential threat to water quality and considering the goal

of deterring future violations. Further, this reduction was deemed appropriate given the voluntary production of information provided in response to the Section 13267 Order. In addition, the Discharger is making proactive operational changes to prevent future discharges. This is the kind of response that the Prosecution Team hopes other dischargers will model, and as ongoing enforcement efforts are underway, the maximum penalties will be used for the more recalcitrant or uncooperative dischargers, consistent with the Enforcement Policy adjustment factors.

11. To resolve the discharges by consent and without further administrative proceedings, the Parties have agreed to the imposition of \$346,500 in liability against the Discharger.

Stipulations

The Parties stipulate to the following:

- 1. Administrative Civil Liability: The Discharger hereby agrees to the imposition of an administrative civil liability totaling three hundred forty-six thousand five hundred dollars (\$346,500) to the Central Valley Water Board to resolve the alleged Water Code violations, specifically:
 - a. One hundred seventy-three thousand two hundred fifty dollars (\$173,250) shall be paid to the State Water Board Waste Discharge Permit Fund. Payment shall be made no later than thirty (30) days after the entry of an Order approving this Settlement Agreement by the Central Valley Water Board, by check payable to the State Water Board Waste Discharge Permit Fund. The Discharger shall indicate on the check the number of this Order. The Discharger shall send the original signed check to the Accounting Office, Attn: ACL Payment, P.O. Box 1888, Sacramento, CA 95812-1888. Copies of the check shall be sent to Julie Macedo, Senior Staff Counsel, State Water Resources Control Board, Office of Enforcement, P.O. Box 100, Sacramento, CA 95812 and Clay Rodgers, Assistant Executive Officer, Regional Water Quality Control Board, Central Valley Region, 1685 E Street, Fresno, CA 93706.
 - b. One hundred seventy-three thousand two hundred fifty dollars (\$173,250) shall be paid to the Rose Foundation for Communities and the Environment ("Rose Foundation") to be distributed in its entirety to the Community Water Center (CWC) solely for use as part of the Clean Water for Disadvantaged Communities Project. This Project is intended to ensure clean sources of drinking water for disadvantaged communities in the San Joaquin Valley and Tulare Lake Basin. Payment shall be made no later than thirty (30) days after the entry of an Order approving this Settlement Agreement by the Central Valley Water Board. Payment shall be provided to the Rose Foundation in the form of a single check payable to the "Rose Foundation." Payment shall be sent to the following address: Rose

Foundation, 6008 College Avenue, Oakland, CA 94618, Attn: Tim Little. A copy of the check shall be sent to Julie Macedo and Clay Rodgers at the addresses set forth above.

- Supplemental Environmental Project: The Discharger and the Central Valley Water Board agree that the payment specified in Section 1.b of the Stipulations is a Supplemental Environmental Project (SEP), and that the amount specified (hereafter SEP Amount) will be treated as a Suspended Administrative Civil Liability for purposes of this Stipulated Order. Upon the Discharger's payment of its SEP obligations under this Stipulation, Central Valley Water Board staff shall send Discharger a letter recognizing the satisfactory completion of its SEP obligations. This letter shall terminate any further SEP obligations of Discharger and result in the permanent waiver of the SEP suspended liability.
 - As part of the SEP funded by the Discharger, CWC will further efforts to ensure clean sources of drinking water for disadvantaged communities in the San Joaquin Valley and Tulare Lake Basin, where primary groundwater contaminants may include nitrate, metals, pesticides and bacteria. CWC will accomplish this through three main strategies: 1) Water Quality Monitoring in Disadvantaged Communities; 2) Community Outreach and Education in Disadvantaged Communities; and 3) Supporting Community Participation in Watershed Planning. Water quality monitoring will help develop a better understanding of local groundwater quality and identify impacts on beneficial uses, particularly for disadvantaged community drinking water supplies. According to the California Department of Public Health, 55% of communities with chronic contamination of drinking water wells are located in the San Joaquin Valley. Education and engagement of disadvantaged communities will enable proactive action to prevent and mitigate contamination of groundwater used as a source of drinking water. Community participation in Integrated Regional Water Management Plans (IRWMPs) and groundwater quality management plans will ensure that water quality needs of disadvantaged communities will be addressed and sources of community drinking water supplies will be protected and improved.
- 3. Compliance with Applicable Laws: The Discharger understands that payment of administrative civil liability in accordance with the terms of this Stipulated Order and/or compliance with the terms of this Stipulated Order is not a substitute for compliance with applicable laws, and that continuing violations may subject it to further enforcement, including additional administrative civil liability.
- 4. Party Contacts for Communications related to Stipulated Order:

For the Central Valley Water Board:

Clay Rodgers
Assistant Executive Officer
Central Valley Regional Water Quality Control Board
Central Valley Region

1685 E Street Fresno, CA 93706 (559) 445-5116

Julie Macedo - Senior Staff Counsel Office of Enforcement State Water Resources Control Board 1001 I Street, 16th Floor Sacramento, CA 95812 (916) 323-6847

For the Discharger:

Pat Dennis – Counsel Gibson Dunn & Crutcher 333 South Grand Avenue Los Angeles, CA 90071 (213) 229-7567

Adam Smith Senior Counsel Vintage Production California LLC 9600 Ming Avenue Suite 300 Bakersfield, California 93311

- 5. Attorney's Fees and Costs: Except as otherwise provided herein, each Party shall bear all attorneys' fees and costs arising from the Party's own counsel in connection with the matters set forth herein.
- 6. Matters Addressed by Stipulation: Upon the Central Valley Water Board's, or its delegee's, adoption of this Stipulated Order, this Order represents a final and binding resolution and settlement of any potential violations resulting from the Section 13267 Order pursuant to Water Code section 13350. The provisions of this Paragraph are expressly conditioned on the full payment of the administrative civil liability, in accordance with Stipulation Paragraph 1 herein.
- 7. Public Notice: The Discharger understands that this Stipulated Order will be noticed for a 30-day public review and comment period prior to consideration by the Central Valley Water Board, or its delegee. If significant new information is received that reasonably affects the propriety of presenting this Stipulated Order to the Central Valley Water Board, or its delegee, for adoption, the Executive Officer may unilaterally declare this Stipulated Order void and decide not to present it to the Central Valley Water Board, or its delegee. The Discharger agrees that it may not rescind or otherwise withdraw its approval of this proposed Stipulated Order.
- 8. Addressing Objections Raised During Public Comment Period: The Parties agree that the procedure contemplated for the Central Valley Water Board's adoption

of the settlement by the Parties and review by the public, as reflected in this Stipulated Order, will be adequate. In the event procedural objections are raised prior to the Stipulated Order becoming effective, the Parties agree to meet and confer concerning any such objections, and may agree to revise or adjust the procedure as necessary or advisable under the circumstances.

- 9. No Waiver of Right to Enforce: The failure of the Prosecution Team or Central Valley Water Board to enforce any provision of this Stipulated Order shall in no way be deemed a waiver of such provision, or in any way affect the validity of the Order. The failure of the Prosecution Team or Central Valley Water Board to enforce any such provision shall not preclude it from later enforcing the same or any other provision of this Stipulated Order.
- 10. Interpretation: This Stipulated Order shall be construed as if the Parties prepared it jointly. Any uncertainty or ambiguity shall not be interpreted against any one Party.
- 11. Modification: This Stipulated Order shall not be modified by any of the Parties by oral representation made before or after its execution. All modifications must be in writing, signed by all Parties, and approved by the Central Valley Water Board.
- 12. If Order Does Not Take Effect: In the event that this Stipulated Order does not take effect because it is not approved by the Central Valley Water Board, or its delegee, or is vacated in whole or in part by the State Water Board or a court, the Parties acknowledge that they expect to proceed to a contested evidentiary hearing before the Central Valley Water Board to determine whether to assess administrative civil liabilities for the underlying alleged violations, unless the Parties agree otherwise. The Parties agree that all oral and written statements and agreements made during the course of settlement discussions will not be admissible as evidence in the hearing. Subject to the foregoing sentence, the Parties agree to waive any and all objections based on settlement communications in this matter, including, but not limited to:
 - a. Objections related to prejudice or bias of any of the Central Valley Water Board members or their advisors and any other objections that are premised in whole or in part on the fact that the Central Valley Water Board members or their advisors were exposed to some of the material facts and the Parties' settlement positions as a consequence of reviewing the Stipulation and/or the Order, and therefore may have formed impressions or conclusions prior to any contested evidentiary hearing in this matter; or
 - b. Laches or delay or other equitable defenses based on the time period for administrative or judicial review to the extent this period has been extended by these settlement proceedings.
- 13. No Admission of Liability: In settling this matter, the Discharger does not admit to any of the findings in this Stipulated Order, or that it has been or is in violation of the Water Code, or any other federal, state, or local law or ordinance; however, the

- Discharger recognizes that this Stipulated Order may be used as evidence of a prior enforcement action consistent with Water Code section 13327.
- 14. Waiver of Hearing: The Discharger has been informed of the rights provided by Water Code section 13323(b), and hereby waives its right to a hearing before the Central Valley Water Board prior to the adoption of the Stipulated Order.
- 15. Waiver of Right to Petition: The Discharger hereby waives its right to petition the Central Valley Water Board's adoption of the Stipulated Order as written for review by the State Water Board, and further waives its rights, if any, to appeal the same to a California Superior Court and/or any California appellate level court.
- 16. Covenant Not to Sue: The Discharger covenants not to sue or pursue any administrative or civil claim(s) against any State Agency or the State of California, its officers, Board Members, employees, representatives, agents, or attorneys arising out of or relating to any violation alleged herein.
- 17. Central Valley Water Board is Not Liable: Neither the Central Valley Water Board members nor the Central Valley Water Board staff, attorneys, or representatives shall be liable for any injury or damage to persons or property resulting from acts or omissions by the Discharger, its directors, officers, employees, agents, representatives or contractors in carrying out activities pursuant to this Stipulated Order.
- 18. Authority to Bind: Each person executing this Stipulated Order in a representative capacity represents and warrants that he or she is authorized to execute this Stipulated Order on behalf of and to bind the entity on whose behalf he or she executes the Order.
- 19. No Third Party Beneficiaries. This Stipulated Order is not intended to confer any rights or obligations on any third party or parties, and no third party or parties shall have any right of action under this Stipulated Order for any cause whatsoever.
- 20. Effective Date: This Stipulated Order shall be effective and binding on the Parties upon the date the Central Valley Water Board, or its delegee, enters the Order.
- 21. Counterpart Signatures: This Stipulated Order may be executed and delivered in any number of counterparts, each of which when executed and delivered shall be deemed to be an original, but such counterparts shall together constitute one document.

IT IS SO STIPULATED.

California Regional Water Quality Control Board Prosecution Team

Central Valley Region

y: ______

Clay Rodgers,

Assistant Executive Officer

Date:

8/5/2014

Occidental of Hik Nills, Inc.

By: _______

Operations Manager

Date:

7-24-2014

Order of the Central Valley Water Board

- In adopting this Stipulated Order, the Central Valley Water Board or its delegee has
 considered, where applicable, each of the factors prescribed in Water Code sections
 13327, 13351 and 13385(e). The consideration of these factors is based upon
 information and comments obtained by the Central Valley Water Board's staff in
 investigating the allegations concerning the Discharger discussed herein or otherwise
 provided to the Central Valley Water Board or its delegee by the Parties and
 members of the public.
- 2. This is an action to enforce the laws and regulations administered by the Central Valley Water Board. The method of compliance with this enforcement action consists entirely of payment of amounts for administrative civil liability. As such, the Central Valley Water Board finds that issuance of this Order is not considered subject to the provisions of the California Environmental Quality Act (CEQA) as it will not result in a direct or reasonably foreseeable indirect physical change in the environment and is not considered a "project" (Public Resources Code 21065, 21080(a); 15060(c)(2),(3); 150378(a), Title 14, of the California Code of Regulations). In addition, the Central Valley Water Board finds that issuance of this Order is also exempt from the provisions of CEQA in accordance with section 15321(a)(2), Title 14, of the California Code of Regulations as an enforcement action by a regulatory agency and there are no exceptions that would preclude the use of this exemption.
- The terms of the foregoing Stipulation are fully incorporated herein and made part of this Order of the Central Valley Water Board.

SETTLEMENT AGREEMENT AND STIPULATION FOR ENTRY OF ACL ORDER R5-2014-0535 OCCIDENTAL OF ELK HILLS, INC.

Pursuant to Water Code sections 13323, 13350, 13385 and Government Code section 11415.60, IT IS HEREBY ORDERED by the California Regional Water Quality Control Board, Central Valley Region.

By:

Kenneth D. Landau Assistant Executive Officer

Date: 2 October 2014

101742573.1

Settlement Agreement - Attachment A

Company	Well Name	Discharge Volume (bbls)	Monetary Fine at \$6 per gallon \$15,120	Monetary Fine Totals
Occidental of Elk Hills, Inc.				
	364X-34S	120	\$30,240	
	37E-11G	80	\$20,160	
-	41W-35S	50	\$12,600	
•	61SE-1G	60	\$15,120	
	JA-17	45	\$11,340	
	JA-32	20	\$5,040	
	23-31R	10	\$2,520	
	627B-11Z	600	\$151,200	· · · · · · · · · · · · · · · · · · ·
	581X-15Z	330	\$83,160	
Total:		1,375		\$346,500
Vintage Production California	Good Show 10H	325	\$81,900	
	Good Show 12H	192	\$48,384	
Total:	· ·	517	7	\$130,284
COMBINED TOTAL:				\$476,784

Attachment B Detailed Project Description – Community Water Center

1) Detailed Project Description (5 pages maximum):

Describe the proposed project including:

- a. Specific activities to be funded with this grant.
- 1) Water Quality Monitoring in Disadvantaged Communities:
 The Community Water Center (CWC) will provide water quality sampling for community and individual wells in disadvantaged communities (DACs). In particular, sampling will include testing for common local groundwater contaminants, such as nitrate, metals, pesticides, bacteria, and others as appropriate.
- **Low End Budget Activities: At a minimum, CWC will conduct screening of individual wells and community taps for common contaminants, including arsenic and nitrate, using field monitoring equipment utilized by previous CDPH private well testing efforts. The results of sampling will be shared with the water users along with information on how to get certified lab testing, other potential co-contaminants that should be tested for based on results, and what can be done to prevent further contamination and mitigate existing contamination problems.
- **High End Budget Activities: If a greater amount of funding is available. CWC will conduct the following much more extensive water quality monitoring activities. CWC will outreach to individual property and business owners, residents and schools representatives in DACs with private wells in vulnerable groundwater environments in order to conduct certified lab monitoring for at least 300 wells within at least three communities that do not have water quality monitoring information. CWC will provide language and culturally appropriate information regarding the need to test water quality, how to participate in this water sampling project and how to continue to test wells to monitor water quality, and as well as information on well disinfection and maintenance. Additionally, CWC will provide information to all participants on the results of water sampling and what can be done to address any contamination problems detected. Additionally, CWC will tabulate the information for each community and hold community meetings to share overall results from the sampling and support consideration of next steps if widespread contamination is found. Individual sampling results will be shared with individuals, local communities and local and regional water agencies, while protecting individual confidentiality if requested. (Note: The exact number of communities will depend on the total number of wells in each community and total number of likely contaminants for which sampling is conducted. Please note that this activity is scalable and can be adapted to budgets on a wide range of scales.1)

The total need for water monitoring in small communities with domestic wells is extensive. According to Addressing Nitrate in California's Drinking Water (UC Davis Nitrate Report, 2012), approximately 245,000 people rely on about 74,000 domestic wells within the Tulare Lake Basin and Salinas Valley. There are an estimated 20,000 private domestic wells in Tulare County alone, and hundreds of communities that rely on private domestic wells in the San Joaquin Valley.

2) Community Outreach and Education in DACs:

CWC and the AGUA coalition will provide outreach and education to DACs on local water quality and ways to prevent and mitigate contamination of community drinking water sources. One primary activity will be subcontracting to the AGUA coalition to provide support for outreach and education efforts. Formed in February 2006, AGUA is a grassroots coalition of over 80 representatives from low-income and people of color communities, including youth and private well owners, from 19 community organizations and 8 nonprofit agencies dedicated to securing safe, clean and affordable drinking water in California's San Joaquin Valley. At monthly AGUA meetings, members learn about the water contamination problem in the Valley and identify concrete actions to address the issue at the local and regional levels. Additionally, AGUA members develop local community outreach events, including during National Drinking Water Week, to highlight local groundwater contaminants impacting drinking water and teach ways to prevent and mitigate contamination. The majority of AGUA's member communities have a grassroots community group that operates on a local level. These groups serve as AGUA's main mechanism of outreach and organizing. Tied into the fabric of the San Joaquin Valley, AGUA members inform neighbors and residents of nearby communities through their informal and formal networks. Using bilingual fliers, broadcasts on Spanish language radio such as Radio Campesina and Radio Bilingue, and house visits, AGUA members are constantly providing outreach and education on local water quality and growing the number of interested groups and communities.

In addition, CWC will provide bilingual educational materials on local water quality for DACs, as well as work with local media in both English and Spanish to highlight local water quality challenges along with local efforts to prevent and mitigate contamination.

3) Supporting Community Participation in Watershed Planning:
CWC will support disadvantaged community participation in Integrated Regional Water
Management Plans (IRWMPs) and support integration of disadvantaged community water needs
into the development of groundwater quality management plans. Specifically, CWC will
conduct capacity and leadership development workshops through AGUA and provide direct
training and support to DAC representatives to foster direct community engagement in local
IRWMPs, particularly in the Upper Kings, Kaweah, Tule River and South Kern County
watersheds. Additionally, CWC will directly engage in key local IRWM and groundwater
management planning efforts, primarily in the Upper Kings, Kaweah, Tule and South Kern
watersheds to provide suggestions on how to ensure watershed planning adequately addresses
local DAC water needs. This may include written comments, meeting participation, as well as
program plan or policy development with local IRWM and groundwater management planning
efforts.

At the High End Budget Level, Task 3 would include additional activities of organizing and coordinating regional representation for DACs within the five IRWM or other regional planning efforts in the Tulare Lake basin. This would include facilitating regular meetings and communication between new and existing DAC representatives to coordinate DAC plans, policies and projects within IRWMPs. Additional CWC staff would also support the development of written comments, plans, policies or projects in at least three more (five total) local IRWMPs and groundwater management plans to protect and improve groundwater that serve as sources of drinking water for DACs.

b. How these activities would benefit water quality.

Water quality monitoring will help develop a better understanding of local groundwater quality and identify impacts on beneficial uses, particularly for DAC drinking water supplies. The Tulare Lake Basin Disadvantaged Community Water Study² found nearly 200 clusters of at least 15 homes that were not served by a public water system, more than a third of the small communities in the Tulare Lake Basin. With the exception of the private domestic wells sampled as part of voluntary projects,³ little information is publicly available concerning the location and water quality of private domestic wells. Yet domestic wells in DACs are often relatively shallow and may not have been adequately constructed, resulting in extremely high vulnerability to groundwater contamination. As a result, these small, rural DACs are disproportionately impacted by contamination. Domestic well monitoring results can also be a relatively early indicator of broader contamination challenges to beneficial uses. Therefore, domestic well monitoring information is crucial both to better understand impacts on beneficial uses, and to better tailor water quality protection and improvement efforts.

Additionally, through community education, both those most impacted and those that may be contributing to water quality can help prevent contamination and mitigate the impacts of contamination on beneficial uses, particularly for DACs. Community education also helps engage those most impacted by contamination in raising public support for water quality improvement and protection activities. Public support is vital for the success of water quality improvement projects, particularly new efforts that require changes in practices.

Community participation in IRWMPs and integration of community needs into groundwater quality management plans will ensure that water quality needs of DACs will be addressed in watershed protection and planning efforts and sources of community drinking water supplies will be protected and improved. Without engagement from DACs, watershed planning efforts have focused on protection of other beneficial uses. As a result, there has been a lack of plans and projects to improve water quality for the sources of drinking water for DACs. By engaging in these processes, this project will help those plans more fully protect and improve groundwater quality, particularly for DACs.

The strategic importance of project if it is completed.

DACs are often reliant on one or two water sources, and therefore pollution of groundwater supplies can leave whole communities without access to safe drinking water. However, little information exists as to the source water quality in communities, particularly those without regulated public water systems. Additionally, community members often lack information on what can be done to prevent contamination and how to mitigate the impacts of groundwater pollution. Moreover, local and regional water planning efforts have traditionally focused on the needs of irrigation and larger cities, and only recently are beginning to try to better incorporate

This study, funded by the Department of Water Resources and conducted by Tulare County, is still in progress. It is still refining development of a database of unincorporated communities in the Tulare Lake Basin and their water and wastewater needs. More information is available at http://www.tularecounty.ca.gov/cao/index.cfm/tulare-lake-basin-disadvantaged-community-water-study/.

The State Board's GAMA Program has sampled private domestic wells in five county focus areas since 2002, including Tulare and Monterey Counties. Through its continuing collaboration with the USGS, GAMA is also testing private domestic wells as part of its Priority Basin Project (called GAMA Shallow Aquifer Assessment).

and integrate the needs of small DACs. This grant would help address all of these needs and provide important information that will ultimately allow for improved water quality for beneficial uses in the region.

Through our work, and in partnership with AGUA, CWC ensures communities have a voice in water planning and decision making that affects whether they have access to clean water. Through our current pilot projects, we have engaged hundreds of local representatives from DACs in some local water planning efforts. This project would take the next step to focus on capacity building, to empower these residents to more actively and effectively participate in local and regional water quality planning efforts.

At the High End Budget Level, Task 3 would include additional steps of actually organizing and coordinating regional representation for DACs within IRWMs, which is consistent with one of the recommendations of the Governor's Drinking Water Stakeholder Group in the New and Expanded Funding Sources report submitted in the summer of 2013. This recommendation was one of the key gaps identified by the groups to help move DACs forward in developing sustainable and affordable solutions to their water challenges.

d. Benefits to DACs, including the demographics of the communities served and specifically identification of primary community partners.

CWC strongly believes that residents of impacted DACs are the most effective advocates for water quality protection. Our approach is built on the premise that we must first and foremost work to empower impacted communities to speak for and represent themselves. CWC's approach honors and respects impacted communities by ensuring that they lead, rather than follow, problem-solving efforts. With that lens, CWC works to ensure that rural, low-income communities of color in California's San Joaquin Valley, and agricultural areas throughout the state, have access to clean and affordable drinking water now and in the future by working to reduce the major sources of groundwater contamination from agriculture and supporting DAC participation in Integrated Regional Water Management Plans (IRWMPs) and support integration of DAC water needs into the development of groundwater quality management plans.

Community Water Center's target population includes rural, low-income communities in the San Joaquin Valley, as 55% of the communities with chronic drinking water violations in the State are in the San Joaquin Valley (California Department of Public Health, 2012). The demographics of the DAC residents that CWC has worked with in these efforts have been approximately 80% women or girls and 90% Latino. The median annual income in the average community with which CWC works is less than 60% of the statewide average (defined as severely disadvantaged in the drinking water funding programs through the State). Nearly every community with which we work is primarily comprised of farm -worker families, many of whom are either mono-lingual Spanish or limited-English speakers.

In this project, CWC will subcontract directly with the AGUA coalition as a direct project partner. AGUA is composed of and led by representatives of Valley DACs impacted by contaminated water. This includes primarily rural, unincorporated low-income communities in the southern San Joaquin Valley. All substantive decisions in AGUA are decided through discussion and a vote of the Coordinating Council. AGUA's Coordinating Council is comprised of 19 voting community representatives including youth and 8 nonvoting NGO representatives

that work in the Valley, and is therefore entirely reflective of the communities AGUA serves. All of these members participate in each of the coalition's decisions, and each member has a particular responsibility within AGUA's water contamination campaign; however, only community representatives are able to vote on decisions, while non-profit agency members provide advice and recommendations within the Coordinating Council.

In addition to AGUA, CWC also has a large network of community and organizational partners though our projects over the past nine years. Most recently and relevant to this project, CWC engaged approximately 50 local community leaders as part of piloting the San Joaquin Valley Leadership Institute. Additionally, CWC continues to manage a contacts database of over 700 local stakeholders interested in DAC water issues in the Tulare Lake Basin through the Upper Kings Basin Water Authority's Disadvantaged Community Pilot Project & Tulare Lake Basin Disadvantaged Community Pilot, for which CWC served as the lead contractor for community outreach and stakeholder engagement.

Central Valley Water Quality Community Grants Program
Additional Questions and Statements

4) Address the Following Questions or Statements:

Attach (or include in the Project Description) answers to the following questions (attachments do not count towards page limit):

- a. Is this project independently required by any discharger or is this project proposed as mitigation to offset the impacts of any discharger's project(s)?

 No.
- b. How will this project benefit or study groundwater or surface water quality or quantity, and the beneficial uses of the State of California?
 Water quality monitoring will help develop a better understanding of local groundwater quality and identify impacts on beneficial uses, particularly for DAC drinking water supplies.

Community education will help prevent contamination and mitigate the impacts of contamination on beneficial uses, particularly for DACs.

Community participation in IRWMPs and integration of community needs into groundwater quality management plans will ensure that water quality needs of DACs will be addressed in watershed protection and planning efforts and sources of community drinking water supplies will be protected and improved.

- c. Include a statement that this project shall not directly benefit the State Water Board, or Regional Water Board functions or staff.

 This project shall not directly benefit the State Water Board, or Regional Water Board function or staff.
 - d. Have funds for this project been provided by, or are any requests for funding pending with, any voter-approved propositions, sources related to section 319 of the Clean Water Act, or other Grant Programs or Funding Sources? If so, describe such other received or pending funding, and describe how it is not duplicative of the funds being sought in this project proposal.

No funding is currently secured or pending to support the specific activities and budget items listed in this project. CWC and AGUA have secured funding sources from private foundations and donors to support CWC core programmatic activities, which include education and outreach and participation in water planning efforts generally, however the activities and specific budget items listed here are not covered by any other source of funding. If CWC or AGUA receive any additional funds that would cover the activities and budget items listed here, CWC will contact the Rose Foundation and discuss appropriate budget or work plan modifications to ensure that any funds provided by the Rose Foundation for this project do not duplicate these other sources.

Central Valley Water Quality Community Grants Program
Deliverables and Timeline for Project Activities

Deliverables and Timeline for Project Activities

1. Water Quality Monitoring in DACs Activities:

Low End Budget Activities with Timelines and Deliverables:

- a. Outreach to at least 40 individual well users in DACs
 - a. Timeline: Month 1-3
 - b. Deliverables: Direct contact with at least 40 individuals
- Conduct screening of individual wells and community taps for common contaminants, including arsenic and nitrate, using field monitoring equipment utilized by previous CDPH private well testing efforts.
 - a. Timeline: Month 3-8
 - b. Deliverables: field sampling for arsenic and/ or nitrate for at least 40 wells or taps in DACs in vulnerable groundwater environments.
- c. Share the results of sampling with the water users along with information on how to get certified lab testing, other potential co-contaminants that should be tested for based on results, and what can be done to prevent further contamination and mitigate existing contamination problems.
 - a. Timeline: Month 8-12
 - b. <u>Deliverables</u>: Sampling results and educational materials for at least 40 field sampling results provided to water users.

High End Budget Activities with Timeline and Deliverables1:

- a. Outreach to individual property and business owners, residents and schools representatives in DACs with private wells in vulnerable groundwater environments. This includes distributing language and culturally appropriate information regarding the need to test water quality, how to participate in this water sampling project and/or how to continue to test wells to monitor water quality, and as well as information on well disinfection and maintenance.
 - a. Timeline: Primarily in months 1-3, although extending up through month 5.
 - b. <u>Deliverable</u>: Individual contact and distribution of flyers to at least 300 individual private well users in at least 3 DACs.
- b. Conduct certified lab monitoring for at least 300 wells within at least three communities that do not have water quality monitoring information.
 - a. <u>Timeline:</u> Primarily in month 3 -6, although extending through month 8 if necessary.

¹ This portion of the project is scalable and deliverables can be adjusted to the amount of funding available to reach more or fewer communities, wells or contaminants. As noted in the narrative, there is significant need around water quality monitoring of domestic wells that can be addressed with additional funds. According to Addressing Nitrate in California's Drinking Water (UC Davis Nitrate Report, 2012), approximately 245,000 people rely on about 74,000 undocumented domestic wells within the Tulare Lake Basin and Salinas Valley. There are an estimated 20,000 private domestic wells in Tulare County alone, and hundreds of small communities that rely on individual domestic wells in the San Joaquin Valley.

Central Valley Water Quality Community Grants Program Deliverables and Timeline for Project Activities

- b. <u>Deliverables:</u> Sampling results for at least 300 wells within a total of at least 3 communities for nitrate, metals, pesticides, bacteria and others.²
- c. Provide information to all participants on the results of water sampling and what can be done to address any contamination problems detected. This includes distributing language and culturally appropriate information regarding how to continue to monitor water quality, and as well as' information on well disinfection and maintenance.
 - a. <u>Timeline:</u> Months 4-8 (within weeks of receiving results, or immediately for acute contaminants).
 - b. <u>Deliverables:</u> Written results and materials distributed to at least 300 individual private well users in at least 3 DACs.
- d. Tabulate the information for each community and hold community meetings to share overall results from the sampling and support consideration of next steps if widespread contamination is found.
 - a. Timeline: Months 7-12.
 - b. <u>Deliverables</u>: One community summary tables developed for each of at least three communities showing monitoring results, and at least one (likely two) community meetings held in each community for each least three communities to discuss results and support discussion and development of next steps to develop solutions.
- e. Share individual sampling results with individuals, local communities and local and regional water agencies, while protecting individual confidentiality if requested.
 - a. Timeline: Months 8-12.
 - b. <u>Deliverables</u>: Water Quality results from wells and drinking water sources sampled.

1) Community Outreach and Education in DACs.

- a. Trainings at AGUA meetings
 - a. Timeline: AGUA meetings and workshops will be monthly
 - b. Deliverables: at least 11 AGUA meetings
- b. Local community outreach and education event in local communities
 - a. <u>Timeline</u>: May of the year grant funds are made available.
 - b. <u>Deliverables</u>: at least 40 local DAC representatives receiving information directly through participation in at least one local event
- c. Local media efforts (interviews, tours, etc.) to raise awareness of local water quality challenges and what can be done to prevent and mitigate contamination
 - a. Timeline: at least once per quarter.
 - b. <u>Deliverables</u>: at least 2 media stories in Spanish or English covering water quality challenges and efforts to protect or mitigate contamination.

Note that the exact number of wells and contaminants will vary depending on amount received, and the specific constituents appropriate and number of wells identified in each community.

Central Valley Water Quality Community Grants Program Deliverables and Timeline for Project Activities

- 2) Supporting Community Participation in Watershed Planning.
 - a. Support DAC participation in local IRWM meetings
 - a. Timeline: at least once per quarter
 - b. <u>Deliverables</u>: At least 10 local DACs directly participating in local IRWMs by the end of the grant period.
 - b. Training workshops for residents and water board members representing DACs to understand and better engage in IRWM planning efforts.
 - a. Timeline: Months 3-9
 - b. <u>Deliverables</u>: at least 10 DAC representatives participation in at least 2 training workshops.
 - c. Written comments and or development of policies and/or projects will vary depending on the timing of the grant but will happen at least once over the course of the year.
 - a. <u>Timeline</u>: Written comments submitted at least once for at least two different local IRWMs, timing will vary depending on timing of funding.
 - b. Deliverables:
 - Low End Budget Deliverable: Development of written comments, plans, policies or projects in at least two local IRWMPs and groundwater management plans to protect and improve groundwater that serve as sources of drinking water for DACs.
 - ii. <u>High End Budget Deliverable</u>: Development of written comments, plans, policies or projects in at least five local IRWMPs and groundwater management plans to protect and improve groundwater that serve as sources of drinking water for DACs.
 - d. (High End Budget Activity Only) Coordination of DAC representatives to participate and represent DACs collectively within five IRWM regions of the Tulare Lake Basin.
 - a. <u>Timeline</u>: At least monthly communication throughout grant period.
 - b. <u>Deliverable</u>: Regular meetings and communication with at least 10 DAC representatives from the five regions; development of DAC representation structure for the TLB region within IRWMs.

CWC CV SEP Project Line Item Budget Narrative Task I) Water Quality Monitoring Task 2) Community Outreach and Education Task 3) Supporting Community Participation in Watershed Planning LOW END BUDGET EXPENSES Total Line Item Narrative CWC Personnel \$26,000 \$5,000 \$5,500 \$15,500 Includes Community Organizing and Advocacy Staff at .25 FIE and Technical Analyst staff at .06 FTE AGUA Coalition Subcontract to AGUA to cover portion of AGUA coordination, AGUA community stipends, AGUA mtg expenses & AGUA travel \$3,000 subcontract \$10,000 **5**0 \$7,000 \$0 Water Sampling \$2,000 \$2,000 Field Monitoring Kit supplies to test for arsenic & nitrate
Travel from CWC's Visalia office to community locations \$0 \$3,000 Travel \$1,000 \$1,000 \$1,000 Supplies, printing, mtg expenses, etc. Direct Costs Subtotal \$200 \$700 \$0 \$500 Printing, postage and meeting costs \$19,700 \$41,700 \$8,000 \$14,000 Total Direct Project Costs Indirect costs@ 10% \$4,170 \$800 \$1,400 \$1,970 10% to cover a portion of accounting, insurance, and other non-allocable overhead costs. If only partial funding for this project is available, we would prefer Task 2 & 3 be prioritized. All tasks within this budget can be scaled back but would require scaling back deliverables to adjust for actual funding amounts. \$15,400 TOTAL \$45,870 908,82 \$21,670

HIGH END BUDGET EXPENSES	Total	Task 1) Water Quality Monitoring	Task 2) Community Outreach and Education	Task 3) Supporting Community Participation in Watershed Planning	Line Item Narrative	
CWC Personnel	\$273,242	\$188,816	\$5,500	\$78,926	Task I LOW END BUDGET activities PLUS Includes contacting community residents and property owners; store owners and School Representatives, conduct community meeting(s) in English and Spanish (if needed), collect water samples, deliver to lab, explain results to residents for a total of 230 individuals wells between approximately 3 communities, which total an additional A7 FTE for Community Organizing and Outreach staff as well as an additional 3. FIE for technical analyst staff. Task 2; same activities as in LOW END BUDGET Task:3: LOW END BUDGET activities PLUS includes I FTE for a Community Water Planning Analyst.	
AGUA Coalition- subcontract	\$10,000	50	\$7,000	\$3,000	Subcontract to AGUA to cover portion of AGUA coordination, AGUA community stipends, AGUA mtg expenses & AGUA travel	
Water Sampling	\$53,300	\$53,300	\$0	\$0	Task 1 includes LOW END BUDGET activities PLUS Certified laboratory analysis for 300 wells (in approximately 3 communities) for nitrate, metals, pesticides, bacteria and others.	
Travel	\$6,000	\$4,000	\$1,000	\$1,000	Travel from CWC's Visalia office to community locations	
Supplies, printing, untg expenses, etc.	\$2,200	\$1,500	\$500	\$200	Printing, possage and meeting costs	
Direct Costs Subtotal	\$344,742	\$247,616	\$14,000	\$83,126	Total Direct Project Costs	
Indirect costs@ 10%	344742.3	247616.1	14000.1	83126.1	10% to cover a portion of accounting, insurance, and other non-allocable overhead costs.	
TOTAL	\$689,484	\$495,232	\$28,000	\$166,252	If only partial funding is available above LOW END BUDGET, we can scale TASK 1 in this HIGH END BUDGET to meet available funding by targeting flower communities, flewer wells, and potentially flewer contaminants depending on what is appropriate for the area. Final deliverables would be adjusted to actual funding available. Task 3 is not easily scalable as it would require new staff to conduct expanded activities beyond the LOW END BUDGET activities.	

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