NOTICE OF APPLICABILITY (NOA), CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD, ORDER NUMBER R5-2017-0035, GENERAL ORDER TWO, WASTE DISCHARGE REQUIREMENTS FOR OIL FIELD DISCHARGES TO LAND, AERA ENERGY LLC, LOST HILLS ONE LEASE, LOST HILLS OIL FIELD, KERN COUNTY

Aera Energy LLC (Aera) operates the Lost Hills One Lease (Lease) in the Lost Hills Oil Field, west of Interstate 5 and south of Highway 46. A concrete lined surface impoundment (pond) is present and is used to separate solids from produced wastewater (discharge). The pond is in the NW corner of section 4 of T27S, R21E MDB&M, and Aera identifies it as the “LH1 Sand Basin,” on the “Lost Hills 1 Dehydration Plant.”

On 13 November 2017, Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff received a letter dated 8 November 2017 containing a Notice of Intent (NOI) for coverage under Waste Discharge Requirements General Order for Oil Field Discharges to Land, General Order Number Two, Order Number R5-2017-0035 (General Order Two). The NOI included an application fee and a completed Form 200, “Application/Report of Waste Discharge …”. A document, dated 21 August 2017, and titled “Technical Report For General Order Number Two, Lost Hills 1 Lease, Aera Energy LLC, Lost Hills Oil Field, Kern County, California” (Report) was also submitted. Another document, containing produced wastewater sampling data, and dated 2 November 2017 and titled “Addendum to Technical Report for General Order Two…” was submitted.

Information, including figures and cross-sections, provided by Aera, shows the pond is constructed in a thin cover of surface alluvium, overlying the Tulare Formation. The Report states that the sides and bottom of the pond are “…constructed of 10-inch thick reinforced concrete,” and that its floor is “…reinforced with ½-inch diameter steel rebar on 12-inch center in each direction.”

This letter serves as formal notice that General Order Two is applicable to the Lease. General Order Number R5-2017-0035-001 is hereby assigned to all produced wastewater discharges into the pond. Aera should become familiar with all of the requirements, time schedules, prohibitions, and provisions of General Order Two, and Monitoring and Reporting Program R5-2017-0035 (MRP).
This letter also serves as formal notice that the portions of Cleanup and Abatement Order R5-2015-0736 (CAO) that apply to the Lost Hills One Lease, are hereby rescinded. The CAO was issued for ponds at two separate leases in the Lost Hills Oil Field, the Lost Hills One Lease and the Lost Hills Two Lease. Central Valley Water Board staff are currently reviewing an NOI submitted by Aera representatives for General Order Two for the two ponds at the Lost Hills Two Lease. The CAO will be rescinded if an NOA for the Lost Hills Two Lease is issued.

General Order Two regulates the discharge of produced wastewater into ponds. The “LH 1 Sand Basin” is a “pond” based on the definition in General Order Two’s Attachment A (Definition Of Terms). As stated in Water Code section 13263, “all” discharges of waste into waters of the state are privileges, not rights. General Order Two does not create a vested right for Aera to continue the discharges of waste to the pond. Failure to prevent conditions that create or threaten to create pollution or nuisance or cause degradation will be sufficient reason to modify, revoke, or enforce the provisions of General Order Two, as well as prohibit further discharge. There is a need to maintain on an ongoing basis the integrity of the pond’s concrete liner.

In 2006, the Central Valley Water Board, the State Water Resources Control Board (State Water Board), and regional stakeholders began a joint effort to address salinity and nitrate problems in the region and adopt long-term solutions that will lead to enhanced water quality and economic sustainability. Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) is a collaborative basin planning effort aimed at developing and implementing a comprehensive salinity and nitrate management program. The CV-SALTS effort might effect changes to the Basin Plan that would necessitate the re-opening of General Order Two.

FACILITY SPECIFIC REQUIREMENTS

1. AERA shall maintain exclusive control of the discharge and shall comply with all of the requirements and timelines of General Order Two, and the MRP.

2. Aera shall operate and maintain the pond sufficiently to protect the integrity of containment and berms and prevent overtopping and/or structural failure. Emergencies shall be reported to the California Governor’s Office of Emergency Services (Cal OES). Discharge of wastes other than those described in the NOI is prohibited. If the method or nature of waste discharge to the pond changes, Aera must submit a Report of Waste Discharge (Form 200).

3. The required annual fee specified in the annual billing from the State Water Board shall be paid until coverage under General Order Two is officially terminated. Aera must notify the Central Valley Water Board in writing to request termination.

4. Within 90 days of receipt of this letter, Aera shall, pursuant to Provision E.3 of General Order Two, submit written certification that acceptable flow meters have been installed at a location or locations to ensure the accurate measurement of all discharge flows. The certification shall be accompanied by: (1) a description of the flow metering devices installed, (2) a diagram showing their locations, and (3) evidence demonstrating that the devices were properly calibrated. An engineered alternative may be used if approved in writing by the Central Valley Water Board’s Executive Officer.
5. AERA shall not discharge produced wastewater outside of the pond. Wastewater use for dust control is not permitted. If Aera intends to apply for use of produced wastewater for dust control, a proposed management plan as described in Provision E.5 of General Order Two must be submitted.

6. Within **60 days** of receipt of this letter, Aera shall, pursuant to Provision E.6 of General Order Two, submit a solids management plan for approval by the Executive Officer. This plan shall include the information required by Provision E.6. Aera shall, also include the information described in General Order Two, Attachment B, Information Needs Sheet, Item B.8 (a. – c.).

7. Provision E.7 of General Order Two requires that within **90 days** of receipt of this letter, Aera shall submit either: 1) a work plan to conduct studies necessary to demonstrate that the discharges of produced wastewater from wells that have been stimulated do not contain well stimulation treatment fluids in concentrations that could adversely affect beneficial uses of waters; or, 2) a work plan for an alternate disposal method for wastewater discharges from wells with a history of, or are planned to receive a “well stimulation treatment.” As part of its compliance with Provision E.7., Area needs to submit a work plan for a study that evaluates the pond’s concrete liner integrity or the results of a study demonstrating the integrity of the pond’s concrete liner.

8. General Order Two Discharge Specification B.10 requires that the operating freeboard in any pond shall never be less than 2 feet, unless a California-registered civil engineer certifies that less freeboard is adequate. The Report is signed by a California-registered civil engineer and indicates that the pond contains a sump that is 6 feet and 2 inches deep. The Report states: “Fluids are pumped out of the sump using a float actuated pump. The pump kicks on when the water in the sump reaches 5 feet.” This indicates that the pond is designed to pump out fluids when freeboard is reduced to 14 inches or less. Pond freeboard shall never be less than 14 inches.

9. The MRP for General Order Two requires the submittal of a Monitoring Well Installation and Sampling Plan (MWISP) in accordance with specified time frames after the NOA is issued. The MWISP for a “small operator” is due 12 months after the NOA is issued. The Executive Officer may rescind the groundwater investigation and groundwater monitoring portions of General Order Two if Aera demonstrates that wastes discharged to the ponds cannot affect the quality of underlying groundwater.

According to information provided with the NOI, the discharge is contained within the pond. The NOI reports that, “**No Aera facilities in the oil field that are the subject of this NOI have met the requirements for coverage under the Industrial Storm Water General Permit.**” Order Number 2014-0057-DWQ (NPDES General Permit CAS000001) specifies waste discharge requirements for discharges of storm water associated with industrial activities. If the conditions or regulatory policies change, the Lease may need coverage under NPDES General Permit CAS000001. There is not a need to obtain coverage under NPDES General Permit CAS000001 at this time.
The MRP requires extensive monitoring of the Lease and the discharge. Failure to comply with the requirements in General Order Two and the MRP could result in an enforcement action as authorized by provisions of the California Water Code. A copy of General Order Two and the MRP is included with the enclosures to this notice. A copy can also be found online at: https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2017-0035.pdf.

The MRP includes monitoring and reporting of chemicals and additives. Aera should become familiar with those requirements. The Central Valley Water Board will review the MRP periodically and revise requirements when necessary.

The MRP can be modified if Aera provides sufficient data to support the proposed changes. If monitoring consistently shows no significant variation in magnitude of a constituent concentration or parameter after a statistically significant number of sampling events, AERA may request the MRP be revised by the Executive Officer to reduce the monitoring frequency or minimize the list of constituents. The proposal must include adequate technical justification for the revisions.


Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review this action in accordance with Water Code section 13320 and CCR, title 23, division 3, chapter 6, section 2050 and those that follow. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Notice of Applicability, except that if the thirtieth day following the date falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day.

**SUBMISSIONS**

The Central Valley Water Board has gone to a paperless office system. All regulatory documents, submissions, materials, data, monitoring reports, and correspondence should be converted to a searchable Portable Document Format (PDF) and submitted electronically to the GeoTracker database http://geotracker.waterboards.ca.gov/

GeoTracker Site Global ID: T10000006759 for the Lost Hills One Lease

Documents that are less than 50 MB should also be emailed to: centralvalleyfresno@waterboards.ca.gov.

Documents that are 50 MB or larger should be transferred to a disk and mailed to the Central Valley Water Board office at 1685 E Street, Fresno, CA 93706.
Please review the attached memorandum for more information. If you have any questions regarding this matter, please contact Zachary Jarvie of this office at (559) 445-5455 or at zachary.jarvie@waterboards.ca.gov.

Pamela Creedon
Executive Officer

Enclosures: 10 April 2018 Memorandum
General Order Two

cc: Howard D. Barlow, Senior Engineer, Amec Foster Wheeler Environment & Infrastructure, Inc., Fresno
Central Valley Regional Water Quality Control Board

TO: Clay Rodgers
   Assistant Executive Officer

W. Dale Harvey
Supervising Engineer
RCE No. 55628

FROM: Michael L. Pfister
   MLP
   Senior Engineering Geologist
   PG No. 5946

Zachary J. Jarvie
   Engineering Geologist
   ZJO

DATE: 10 April 2018

SUBJECT: NOTICE OF APPLICABILITY, CENTRAL VALLEY REGIONAL WATER QUALITY
   CONTROL BOARD, ORDER NUMBER R5-2017-0035, GENERAL ORDER
   NUMBER TWO, WASTE DISCHARGE REQUIREMENTS FOR OIL FIELD
   DISCHARGES TO LAND, AERA ENERGY LLC, LOST HILLS ONE LEASE,
   LOST HILLS OIL FIELD, KERN COUNTY

Aera Energy LLC (Aera) operates the Lost Hills One Lease (Lease) in the Lost Hills Oil Field, west of Interstate 5 and south of Highway 46. A concrete lined surface impoundment (pond) for removing solids, via gravity, from produced wastewater is utilized. The pond is in the NW corner of section 4 of T27S, R21E MDB&M and Aera identifies it as the "LH1 Sand Basin," on the "Lost Hills 1 Dehydration Plant." On 13 November 2017, Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff received a Notice of Intent (NOI) for coverage under Waste Discharge Requirements General Order for Oil Field Discharges to Land, General Order Number Two, Order Number R5-2017-0035 (General Order Two). The NOI included an application fee and a copy of Form 200, "Application/Report of Waste
   General Order Number Two, Lost Hills 1 Lease, Aera Energy LLC, Lost Hills Oil Field, Kern
   County, California" (Report) as well as an addendum, dated 2 November 2017, were also
   submitted. The addendum contained produced wastewater sampling data. This memorandum
   provides a summary of the information provided.

BACKGROUND INFORMATION

A single pond is used to "gravity separate" solids from oil field produced wastewater (discharge). The NOI describes the process by stating, "The low fluid velocity and retention time allow for the
   entrained solids to settle to the bottom of the Sand Basin. The fluids flow over a weir into a
   smaller pump vault. The fluids are pumped out of the vault to be re-introduced into the process.
   The solids collected in the bottom of the Sand Basin are mechanically removed using a loader,"
slurry-type pump, or other means. The removed solids are trucked to Aera’s Central Recycling Facility within the South Belridge Oil Field.”

General Order Two regulates oil field wastewater discharges that exceed the maximum oil field discharge limits for electrical conductivity, chloride, and boron contained in the Water Quality Control Plan for the Tulare Lake Basin, Second Edition, Revised July 2016 (Basin Plan).

Submitted Information and Recent Regulatory History

On 29 January 2015, Central Valley Water Board staff (Staff) inspected the pond. As a result of the inspection, Staff issued a Notice of Violation (NOV), dated 1 April 2015, for unregulated wastewater discharges at the Lost Hills One Lease.

On 1 April 2015, Staff issued “California Water Code Directive Pursuant to Section 13267” (13267 Order), which required that Aera “Collect representative samples of wastewater within each of the ponds.” In response, analytical results from a sample collected on 19 June 2015 was provided in a report dated 3 February 2016.

On 20 November 2015, Staff issued Cleanup and Abatement Order (CAO) R5-2015-0736 to Aera for the Lost Hills One Lease and the Lost Hills Two Lease. In response to the CAO, Aera conveyed a letter dated 18 January 2016, and a one page work plan (Work Plan).

Aera submitted on 8 May 2017, via email, a document dated 6 May 2017, and titled, “Technical Report for General Order Number Three.” The stated purpose of the technical report was to “…fulfill the partial requirement of the Notice of Intent as stated in Attachment B of General Order Number Three.” The technical report included information for the pond at the Lost Hills One Lease and for two ponds at the Lost Hills Two Lease. Staff comments regarding the review of the technical report and the Work Plan were conveyed in a letter dated 6 June 2017. The 6 June 2017 letter stated that there was a need to obtain separate permits for the ponds at the two Leases, and that the available information did not indicate that General Order Three was appropriate for regulating Aera’s ponds in the Lost Hills Oil Field.

POND CHARACTERISTICS

The Report states: “The Sand Basin is 40 feet long and 20 feet wide. The Sand Basin slopes downward from one end to allow access for cleaning. However, the majority of the Sand Basin is 4 feet deep. There is a sump at one end of the Sand Basin that is 6 feet, 2 inches deep.” The Report also states: “The sides and bottom of the Sand Basin are constructed of 10-inch thick reinforced concrete. The floor of the Sand Basin is reinforced with ½-inch diameter steel rebar on 12-inch center in each direction.” Appendix A of the report contains a schematic of the pond.

Under Discharge Specifications, Item B.10., General Order Two states: “Unless a California-registered civil engineer certifies (based on design, construction, and conditions of operation and maintenance) that less freeboard is adequate, the operating freeboard in any pond shall never be less than two feet (measured vertically from the lowest possible point of overflow).”
However, the Report states “The weir is 1.5 feet below the top of the basin and therefore a 2-foot freeboard is not achievable for this basin.”

**DISCHARGE CHARACTERISTICS**

**Flow Volumes**

The Report states: “The Sand Basin receives the heavy solids that collect on the bottom of the free water knockout (inlet of the facility). Volumes have not been captured to this point on fluid coming into the facility. The basin has a weir to separate the solids while the liquids travel over the weir into a sump. Fluids are pumped out of the sump using a float actuated pump. The pump kicks on when the water in the sump reaches 5 feet. At 5 feet, it is estimated that the fluid contained in the basin would be 712 barrels. The maximum monthly calculated volume is summarized in Table 1.” The maximum monthly calculated volume reported in Table 1 of the Report is 6,000 barrels (bbls).

Under Discharge Specifications, Item B.1., General Order Two states: “The discharge flow shall not exceed actual maximum monthly average produced wastewater flow to pond between 26 November 2004 and 26 November 2014. The discharge flow also shall not exceed the maximum design flow of the Facility’s limiting unit as described by the technical data in the NOI.”

Wastewater must not be allowed to over top and flow outside of the ponds. All wastewater discharges outside of the ponds is prohibited.

With regards to the use of wastewater for dust control, the Reports states: “Consistent with Provision E.5 of the General Order, Aera proposes to utilize produced water for dust suppression in the oil field covered by this NOI. Analytical data, along with a detailed management plan will be supplied for this use and no application of produced water to land will occur until the Executive Officer approves the management plan.”

With regards to the reuse of solids, the Report states: “Consistent with Provision E.6 of the General Order, Aera proposes to continue to beneficially utilize solids generated from the oil field covered by this NOI along with other Aera properties consistent with the current practices. Analytical data, along with a detailed management plan, consistent with Provision E.6 and items B-8 (a-c) will be supplied to describe both the centralized road mix processing facility in South Belridge and the regional use of that product for the construction of roads and well pads throughout Aera’s operating properties.” Central Valley Water Board staff have not yet evaluated Aera’s current “regional use” of solids generated from production activities, or the potential implications this may have on water quality. A detailed solids management plan, as required by Provision E.6 of General Order Two needs to be provided.
Waste Constituents

A wastewater characterization sample was collected on 24 July 2017 to comply with the analysis required of General Order Two. Table 1, below, summarizes selected constituent data from the analysis.

### Table 1  Selected constituent data from wastewater sample collected on 24 July 2017.

<table>
<thead>
<tr>
<th>Constituents of Salinity</th>
<th>Concentration</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Dissolved Solids (TDS)</td>
<td>14,000</td>
<td>milligrams per Liter (mg/L)</td>
</tr>
<tr>
<td>Chloride</td>
<td>6,900</td>
<td>mg/L</td>
</tr>
<tr>
<td>Dissolved Boron</td>
<td>51</td>
<td>mg/L</td>
</tr>
<tr>
<td><strong>Volatile Organic Compounds (VOC), and Polynuclear Aromatic Hydrocarbons (PAH)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benzene</td>
<td>1.3</td>
<td>micrograms per Liter (μg/L)</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>1,100</td>
<td>μg/L</td>
</tr>
<tr>
<td>Isopropylbenzene</td>
<td>250</td>
<td>μg/L</td>
</tr>
<tr>
<td>p-isopropyltoluene</td>
<td>200</td>
<td>μg/L</td>
</tr>
<tr>
<td>n-Propylbenzene</td>
<td>320</td>
<td>μg/L</td>
</tr>
<tr>
<td>Toluene</td>
<td>3,200</td>
<td>μg/L</td>
</tr>
<tr>
<td>1,2,4-Trimethylbenzene</td>
<td>1,600</td>
<td>μg/L</td>
</tr>
<tr>
<td>1,3,5-Trimethylbenzene</td>
<td>380</td>
<td>μg/L</td>
</tr>
<tr>
<td>Total Xylenes</td>
<td>4,200</td>
<td>μg/L</td>
</tr>
<tr>
<td>Fluorene</td>
<td>5,500</td>
<td>μg/L</td>
</tr>
<tr>
<td>Naphthalene *</td>
<td>370 / 33,000</td>
<td>μg/L</td>
</tr>
<tr>
<td>Phenanthrene</td>
<td>10,000</td>
<td>μg/L</td>
</tr>
<tr>
<td><strong>Radioactivity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross Alpha</td>
<td>-17.4 ± 68.0</td>
<td>picoCuries per Liter (pCi/L)</td>
</tr>
<tr>
<td>Radium-226</td>
<td>6.66 ± 5.72</td>
<td>pCi/L</td>
</tr>
<tr>
<td>Radium-228</td>
<td>14.7 ± 6.75</td>
<td>pCi/L</td>
</tr>
<tr>
<td>Total Uranium</td>
<td>2.0</td>
<td>pCi/L</td>
</tr>
</tbody>
</table>

* Naphthalene was analyzed for twice, and detected at a concentration of 370 μg/L with U.S. EPA method 8260 (VOCs), and detected at a concentration of 33,000 μg/L with U.S. EPA method 8270 (PAHs).
Regarding hazardous wastes, the Report states that “Hazardous wastes are not typically generated in these fields. However, any generated wastes will be disposed of in accordance with both State and Federal laws and not commingled with wastewater.” Discharge Specification B.15. of General Order Two requires that the discharger monitor the accumulations of solids within the ponds and as necessary, remove them. Additional General Order Two requirements for solids are listed under, Section D, titled “Solids Disposal Specifications.”

REGIONAL CHARACTERISTICS

With regards to underlying soils, the Report states: “The Lost Hills 1 Sand Basin is located in the Tulare outcrop.” The Report also states: “The alluvium and the upper portion of the Tulare are typically referred to as ‘air sands’ as the pore space is unsaturated. Air sands are easily observed on geophysical logs and are indicated by the orange neutron-density crossover seen in cross-sections A-A’ and B-B’. A 50-foot-deep exploratory boring was done to determine the presence or absence of perched water above the air sands. The boring was devoid of water.”

Information from Aera’s previous submittals indicate that the pond known as “The Lost Hills 1 Sand Basin” is constructed in the thin layer of alluvium that overlies the Tulare Formation. Appendix C of the Technical Report contains cross-section A-A’; which is a copy of Figure 6 in Area’s report titled “Area-Specific Groundwater Monitoring Plan For Well Stimulation Treatments, Portions of Sections 4 and 5…” dated 19 September 2016. It shows approximately 20 ft. of alluvium overlying the Tulare Formation in the area of the pond. The presence of alluvium is further indicated by Aera’s 23 January 2017 report titled “Phase 1 UIC Aquifer Exemption Package, Tulare Formation, Lost Hills Oil Field, Kern County…” which states that the Tulare Formation outcrops “…along the crest of the anticline north of Highway 46.” The pond is approximately 900 ft. south Highway 46.

The pond appears to be located on the crest of the Lost Hills anticline. Surface alluvium in the area appears to dip gently to the east.

Regarding the depth and quality of groundwater underlying the pond, the Report states:

“The GAMA Source Water Well Map showing water wells near the Lost Hills 1 Lease is provided in Appendix A. The nearest non-oilfield source well downgradient of the Lost Hills 1 Dehydration Facility is more than 9 miles away. The only groundwater wells identified within 1 mile of the Project Area are industrial water source wells used for oilfield operations and operated by Aera and Chevron. Aera installed one alluvium groundwater monitoring well in Section 4 (MW-4M1) and obtained approval to use three industrial oilfield water source wells as groundwater monitoring wells in the northeast corner of the Project Area for the previously approved interim Groundwater Monitoring Plan. All four monitoring wells are screened within the lower portion of the Tulare Formation. No agricultural water source wells exist within 1 mile of the Project Area.”

“In May 2016, the depth to groundwater in well MW-4M1 was 315.24 feet bgs (61.3 feet above mean sea level). Wells located closest to the pond were logged (see the A-A’
cross section diagram provided in Appendix C) and also show the depth to groundwater near 315 feet bgs. See the results provided in Section E.11. Based on these groundwater elevations and local structural features, the flow direction of alluvium groundwater is to the east-northeast as shown in E.12.a Lost Hills Ground Water Flow Direction Map provided in Appendix A.”

“Groundwater quality and the locations of monitoring wells were summarized in the SB4 reporting process. E.12.d LH1 Ground Water Monitoring is provided in Appendix C and includes Geophysical Logs and the First Semiannual 2016 SB4 Groundwater Monitoring Report for Lost Hills 1 Lease. The Monitoring Report includes figures, tables, well construction diagrams, laboratory analytical reports, and a groundwater elevation table and hydrograph of well MW-4M1.”

Aera submitted a groundwater monitoring plan dated 19 September 2017 and titled “Area – Specific Groundwater Monitoring Plan For Well Stimulation Treatment, Portions of Sections 4 and 5, T27S, R21E.” The monitoring plan was prepared in response to the requirements of the “Model Criteria for Groundwater Monitoring in Areas of Oil and Gas Well Stimulation,” adopted 7 July 2015 by the State Water Resources Control Board. Central Valley Water Board staff and State Water Resources Control Board staff reviewed the document, and comments regarding the review were conveyed with a State Water Resources Control Board letter dated 23 October 2017. The three industrial oilfield water source wells noted above were identified as not being suitable as monitoring wells due to their long screen intervals. Aera submitted a document dated 12 January 2018 and titled “SB4 Groundwater Assessment and Monitoring Well Installation Work Plan.” Aera has also submitted a revised SB4 “Area – Specific Groundwater Monitoring Plan...” dated 21 February 2018. Available data indicates that groundwater is not present in the alluvium that underlies the pond and that first encountered groundwater is in the Tulare Formation.

SUMMARY AND POTENTIAL THREAT TO WATER QUALITY

The pond is lined with reinforced concrete. General Order Two requires groundwater monitoring as described in Monitoring and Reporting Program R5-2017-0035 (MRP) that accompanies General Order Two.

The MRP requires that a “Monitoring Well Installation and Sampling Plan” (MWISP) be submitted within specified time frames. However, the MRP states that, “If the Discharger demonstrates that the wastes discharged to the ponds cannot affect the quality of underlying groundwater, the Executive Officer may rescind by signed letter all or part of the requirements to complete the groundwater investigation and groundwater monitoring portions of this Order.” Any proposal to rescind this requirement will need to demonstrate that the pond has and will contain produced waste water.

Based on the conditions described above, coverage under General Order Two appears to be appropriate for the pond. As per Title 23, CCR, section 2200, the discharge shall be given a TTWQ (threat to water quality) and CPLX (complexity rating) of 3C. Aera is responsible for annual fees associated with this rating, unless conditions or regulatory policies change.