CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD COLORADO RIVER BASIN REGION

ORDER R7-2016-0039

WASTE DISCHARGE REQUIREMENTS FOR
SOUTH HEBER GEOTHERMAL EXPLORATION AREA
HEBER FIELD COMPANY, OWNER, ORMAT NEVADA, INC, OPERATOR
WELLFIELD MUD SUMPS/CONTAINMENT BASINS
Heber - Imperial County

Heber Known Geothermal Resource Area (KGRA)

The California Regional Water Quality Control Board, Colorado River Basin Region (Colorado River Basin Water Board), finds that:

- 1. Ormat Nevada, Inc. (Discharger), operates Geothermal Power Plants and associated well fields known as the Heber Complex in the Imperial Valley. The Discharger's address is 947 Dogwood Road, Heber, CA 92249. This Order regulates the Discharger's wells in the South Heber Geothermal Exploration Area, which consist of geothermal production and injection wells on private lands. The Discharger's wells in the South Heber Geothermal Exploration Area are assigned the California Integrated Water Quality System (CIWQS) waste discharge identification (WDID) number 7A132225001 and Geotracker Global ID number T10000008395.
- 2. The wellfield is located in Sections 3, 4, and 5 of Township 17 South (T17S), Range 14 East (R14E), San Bernardino Baseline and Meridian, Imperial County. A map showing the location of the wellfield is included as Attachment A, which is incorporated herein and made a part of this Order by reference. The mailing address of the operator, Ormat Nevada, Inc., and owner, Heber Field Company, is 6225 Neil Road, Reno, NV 89511.
- 3. The waste discharge activities in the South Heber Geothermal Exploration Area are currently regulated WDR Board Order R7-2007-0010, adopted on March 21, 2007. The Colorado River Basin Water Board has determined that WDRs for the discharge need to be updated to implement the most current laws and regulations applicable to the discharge.
- 4. The Discharger's wellfield is located entirely within the Heber Known Geothermal Resource Area (KGRA).
- 5. Operational and maintenance activities at the wellfield consists of well pad construction, geothermal well drilling, testing, and waste handling and disposal. A standard or typical well pad configuration, including the mud pits that are also called mud sumps, is shown on Attachment B, which is incorporated herein and made a part of this Order by reference.

- 6. Primary access to the wellfield area will be via Interstate 8 to Dogwood Road. Locations of the production wells and start-up pits are shown on Attachment A, which is incorporated herein and made a part of this Order by reference.
- 7. This Board Order regulates the handling and disposal of drilling wastes generated by the Discharger during geothermal well drilling, testing, and maintenance in the vicinity of the Heber KGRA. This Board Order does not regulate construction of well pads nor reinjection from the wellhead to the geothermal aquifer. Construction activities are regulated under the State Board's Stormwater Construction General Permit. Re-injection of brine from the well head to the geothermal aquifer, including but not limited to approval of wells for re-injection, flow rate and volume of geothermal fluids injected, well location, casing design, casing leak detection, additives, leak detection and inspection is regulated by the California Department of Conservation Division of Oil, Gas, and Geothermal Resources.
- 8. The assessor parcel numbers and property owners associated with this Order are listed below:

059-040-005	Abatti, James Albert/Owen, Deborah Dawn
059-030-002	Abatti, James Albert
059-030-001	Love, Carol Beyschlag
059-030-003	Horton, Chester E Jr
059-030-008, -009,010	Ferrell, Charles Gordon/Ferrell, Kerrie
059-020-001	Thomson Foundation Properties LLC
059-020-002	Love, Russell R/Love, Carol
059-020-003	Love, Russell R/Carol Beyschlag
059-040-006	Phoenix Joy L
059-020-013	Compton, Jon G F/Compton, James A
059-030-007	Phoenix Joy L
059-020-012	Simmons, William Glen Jr/Nikki Smith
059-030-005	Thomson ,Victor J

- 9. Definition of terms used in this Board Order:
 - a. **Facility** The entire parcel of property where the Discharger's or related geothermal, industrial, and drilling activities are conducted.
 - Waste Management Unit (WMUs) Mud sumps/containment basins are WMUs.
 - c. **Discharger** The term Discharger means any person who discharges waste that could affect the quality of the waters of the State, and includes

any person who owns the land, Waste Management Unit, or who is responsible for the operation of a waste management unit.¹

Geothermal Drilling Wastes

- 10. The following lists typical wastes that are generated during construction, operation, and maintenance of geothermal exploration wells:
 - a. Geothermal brine The Discharger reports the geothermal brines in the area of the Heber KGRA are hot saline solutions located approximately 6,000 feet below ground surface with Total Dissolved Solids (TDS) ranging from 14,000 to 16,000 mg/L, and approximate major brine constituent concentrations as follows:
 - 1. Sodium (Na) 5,000 mg/L
 - 2. Chloride (CI) 8,000 mg/L
 - 3. Calcium (Ca) 1,000 mg/L
 - 4. Potassium (K) 300 mg/L
 - 5. Sulfate (SO4) 100 mg/L
 - 6. Lithium (Li) 5 mg/L
 - 7. Lead (Pb) 1 mg/L
 - 8. Arsenic (As) 0.13 mg/L
 - b. Drilling muds with additives Drilling fluid, also known as mud, is used to aid the drilling process. Muds are circulated through the drill bit to lubricate and cool the bit, control the formation fluid pressure and aid in carrying the drill cuttings to the surface. Drilling mud additives may include sodium bicarbonate, soda ash, drilling soap, organic polymers, wood fibers, graphite, cottonseed hulls, walnut shells and cement. Drilling mud additives are not expected to render the drilling mud hazardous when used according to manufacturer's specifications.
 - c. **Drill cuttings (rock)** small rock fragments pulverized during drilling and

¹ Ormat Nevada, Inc. has assumed responsibility for compliance with this Board Order. However, property owners remain responsible for the condition of the land and any wastes discharged at their property. (See e.g. State Board WQO 86-11, In the Matter of the Petition of Southern California Edison Company). In the event Ormat Nevada, Inc. fails to control the discharge or to comply with this Board Order, the Colorado River Basin Water Board has the discretion to place responsibility on a property owner.

forced to the surface by drilling mud, aerated mud, and/or air.

Drilling Waste Containment and Disposal

- 11. The Discharger proposes to contain geothermal brine generated during drilling, testing, or maintenance by discharging into large portable tanks. Geothermal brine will be returned to the geothermal resource via injection.
- 12. These WDRs require that drilling muds and rock cuttings generated during well drilling, testing or maintenance will be discharged to mud sumps/containment basins designed to temporarily (less than one year) contain the material while drying. Mud sumps/containment basins will be built with a minimum of twelve (12) inches of compacted clay with permeability of approximately 1x10-6 cm/sec and lined with a synthetic liner.
- 13. Geothermal wells are drilled to minimize mixing of drilling mud and cuttings with geothermal brine. Only a small amount of brine may commingle with drilling mud, primarily brines in that part of the formation displaced by the drill bit. Geothermal brine will not be discharged into mud sumps/containment basins. Standing fluid observed in mud sumps/containment basins (if any) will be removed immediately, stored in portable tanks, and returned to the geothermal resource, or discharged offsite into Class II surface impoundments constructed pursuant to Title 27. The Discharger shall submit to the Regional Board a shipping manifest or other appropriate documentation showing the geothermal brine disposal method and location.
- 14. Clay liner compaction must be certified by a Civil Engineer or Certified Engineering Geologist registered by the State of California. Synthetic liner placement and welding must be certified by the installer to verify that proper factory requirements were satisfied, and no damage occurred during placement. Both types of certification must be submitted, in writing, to the Regional Board prior to use of the temporary mud sump/containment basin. After cleanout of geothermal solids, the integrity of the liner must be re-certified before reuse.
- 15. Liquid wastes produced from drilling, testing, and maintenance of geothermal wells will be contained in portable tanks (the number of tanks required will be determined as drilling proceeds) and returned to the geothermal resource, or will be properly disposed of off-site into permanent Class II surface impoundments constructed pursuant to Title 27 standards. The Discharger shall submit to the Regional Board a shipping manifest or other appropriate documentation showing the geothermal brine disposal method and location.

16. Solids discharged to mud sumps/containment basins are classified as designated waste and must be removed off-site and disposed of in accordance with applicable federal, state, and county regulations.

Hydrology and Geology

- 17. Surface water in the area of the Heber KGRA consists of canals and agricultural drains operated and maintained by the Imperial Irrigation District. The largest surface water in the area is the Central Main Canal, which bisects the Heber KGRA area.
- 18. The Discharger has determined that the muds sumps/containment basins are not located in a 100-year flood zone.
- 19. The regional groundwater flow direction within the Imperial Valley is toward the Salton Sea, a closed basin with a surface elevation of approximately 225 feet below sea level. The Heber KGRA is located below sea level; groundwater flows in a general northwest direction.
- 20. Groundwater depth, gradient, and quality in the area of the Heber KGRA may be influenced, at times, by irrigation of adjacent agricultural fields, and by recharge from nearby canals.
- 21. The Project is located within the Salton Trough area of southeast California. The Salton Trough is a tectonically active zone containing numerous faults associated with the San Andreas Fault Zone. The site is located on the south central portion of the trough, and is underlain by deltaic and lacustrine formations associated with the Colorado River delta. Bedrock in this part of the Salton Trough is approximately three miles below ground surface.
- 22. Climate in the region is arid. Climatological data obtained from 1951 to 1980 indicate an average seasonal precipitation of 2.5 inches, and an average annual pan evaporation rate greater than 100 inches.
- 23. The wind direction follows two general patterns:
 - a. Seasonally from fall through spring, prevailing winds are from the west and northwest. Most of these winds originate in the Los Angeles basin, and tend to decrease the humidity in the Salton Sea area.
 - b. Summer weather patterns are dominated by intense heat induced lowpressure areas that form over the interior desert, drawing air south of the Facility, which typically increases the humidity in the Salton Sea area.

Basin Plan

- 24. This Board Order implements the Water Quality Control Plan for the Colorado River Basin Region of California (Basin Plan) adopted November 17, 1993 and amended on November 16, 2012. The Basin Plan designates the beneficial uses of ground and surface waters in this Region, and contains implementation programs and policies to achieve objectives.
- 25. The Project is located within the Imperial Hydrological Unit. The beneficial uses of groundwater in the Imperial Hydrological Unit are:
 - a. Municipal Supply (MUN)
 - b. Industrial Supply (IND)
- 26. The beneficial uses of surface waters in the area of the well field are as follows:
 - a. <u>Imperial Valley Drains</u>
 - i. Freshwater Replenishment (FRSH)
 - ii. Water Contact Recreation (RECI)
 - iii. Non-contact Water Recreation (RECII)
 - iv. Warm Freshwater Habitat (WARM)
 - v. Wildlife Habitat (WILD)
 - vi. Preservation of Rare, Threatened, or Endangered Species (RARE)
 - b. All American Canal System
 - i. Municipal (MUN)
 - ii. Agricultural (AGR)
 - iii. Aquaculture Supply (AQUA)
 - iv. Freshwater Replenishment (FRSH)
 - v. Industrial (IND)
 - vi. Groundwater Recharge (GWR)
 - vii. Water Contact Recreation (RECI)
 - viii. Non-Contact Water Recreation (RECII)
 - ix. Warm Freshwater Habitat (WARM)
 - x. Wildlife Habitat (WILD)
 - xi. Hydropower Generation (POW)
 - xii. Preservation of Rare, Threatened, or Endangered Species (RARE)

Storm Water

- 27. Federal regulations for storm water discharges were promulgated by the United States Environmental Protection Agency (USEPA) on November 16, 1990 (40 CFR Parts 122, 123, and 124). These regulations required discharges of storm water to surface waters associated with construction activity, including clearing, grading, and excavation activities (except operations that result in disturbance of less than five (5) acres of total land area and which are not part of a larger common plan of development or sale) to obtain a National Pollutant Discharge Elimination System (NPDES) permit and to implement Best Conventional Pollutant Control Technology and Best Available Technology Economically Achievable to reduce or eliminate storm water pollution. (40 CFR 122.26(b)(14)(x).) On December 8, 1999, federal regulations promulgated by USEPA (40 CFR Parts 9, 122, 123, and 124) expanded the NPDES storm water program to include, in pertinent part, storm water discharges from construction sites that disturb a land area equal to or greater than one acre and less than five acres, or is part of a larger common plan of development or sale (small construction activity). (40 CFR 122.26(b)(15).)
- 28. To comply with these federal requirements, the State Water Resources Control Board (State Water Board) adopted Water Quality Order No. 2009-0009-DWQ (NPDES) General Permit No. CAS000002, Waste Discharge Requirements (WDRs) for Discharges of Storm Water Runoff Associated with Construction Activity (Construction General Permit). The Construction General Permit became effective on July 1, 2010, and was amended by Board Orders 2010-0014-DWQ and 2012-0006-DWQ. The Construction General Permit specifies requirements for this facility for discharges of storm water associated with construction activity that results in a land disturbance of one acre or more or is part of a larger common plan of development or sale. The Construction General Permit specifies certain construction activities that are exempted from coverage. Because these exemptions do not apply to the Discharger's proposed construction activity and because this activity will result in a land disturbance of more than 1 acre, the Discharger is subject to the Construction General Permit requirements.

Anti-Degradation Policy

29. State Water Board Resolution 68-16 (*Policy with Respect to Maintaining High Quality Waters of the State*; hereafter Resolution 68-16); requires a Regional Water Board in regulating the discharge of waste to maintain high quality waters of the state (i.e., background water quality) until it is demonstrated that any change

in quality will be consistent with maximum benefit to the people of the State, will not unreasonably affect beneficial uses, and will not result in water quality less than that described in plans and policies (e.g., violation of any water quality objective). The discharge is required to meet waste discharge requirements that result in the best practicable treatment or control of the discharge necessary to assure pollution or nuisance will not occur, and the highest water quality consistent with maximum benefit to the people will be maintained.

CEQA

30. In accordance with Section 15301, Chapter 3, Title 14 of the California Code of Regulations, the issuance of these WDRs, which govern the operation of an existing facility involving negligible or no expansion of use beyond that previously existing, is exempt from the provisions of the California Environmental Quality Act (CEQA) (Public Resources Code, Section 21000 et seq.)

Regulatory Basis

31. Water Code section 13260 requires any person discharging waste or proposing to discharge waste that could affect the quality of the waters of the State, other than into a community sewer system, to file with the Colorado River Basin Water Board a report of waste discharge (ROWD).

Water Code section 13263 authorizes the Colorado River Basin Water Board to prescribe waste discharge requirements (WDRs) for any proposed discharge, existing discharge, or material change to an existing discharge. The WDRs must implement relevant water quality control plans and take into consideration, among other things, the beneficial uses of water to be protected, the water quality objectives reasonably required for that purpose, and the need to prevent nuisance.

Water Code section 13267(b)(1) authorizes the Colorado River Basin Water Board to require a discharger provide any technical or monitoring program reports that the Executive Officer deems necessary to evaluate the discharge. All requirements for monitoring and reporting established for this Board Order are set forth in R7-2016-0039. Water Code section 13267(c) authorizes the Colorado River Basin Water Board, or an authorized representative, to inspect the Facility to evaluate whether the Discharger is in compliance with the Order or the Water Code.

Notification

- 32. The Colorado River Basin Water Board has notified the Discharger and all known interested agencies and persons of its intent to adopt waste discharge requirements for said discharge, and has provided them with an opportunity for a public meeting, and to submit comments.
- 33. It is the policy of the State of California that every human being has the right to safe, clean affordable, and accessible water adequate for human consumption, cooking and sanitary purposes. This order promotes that policy by requiring dischargers to meet maximum containment levels designed to protect human health and ensure that water is safe for domestic use.
- 34. The Colorado River Basin Water Board, in a public meeting, heard and considered all comments pertaining to this discharge.
- **IT IS H'EREBY ORDERED**, that Order R7-2007-0010 is rescinded except for enforcement purposes and that in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, the Discharger shall comply with the following:

A. Discharge Specifications

- The treatment or disposal of wastes at this wellfield shall not cause pollution or nuisance as defined in Section 13050 of Division 7 of the California Water Code.
- 2. Geothermal brine and drilling mud at this wellfield must be contained at all times.
- 3. Containment of waste shall be limited to the areas designated for such activity. Any revision or modification of the waste containment area, or change in operation that alters the nature and constituents of the waste produced, must be submitted in writing to the Colorado River Basin Water Board's Executive Officer for review. The Colorado River Basin Water Board's Executive Officer must approve of the proposed change before the change in operation or modification of the designated area is implemented.

- 4. Prior to drilling a new well at the well field, other than those shown on Attachment A, the Discharger shall notify, in writing, the Colorado River Basin Water Board's Executive Officer of the proposed change.
- 5. Any substantial increase or change in volume of material to be discharged to the mud sumps under these Waste Discharge Requirements (WDRs) must be submitted in writing to the Colorado River Basin Water Board's Executive Officer for review. The Colorado River Basin Water Board Executive Officer must approve of the proposed change before the change in discharge volume is implemented.
- 6. Liquid or solid geothermal waste discharged to tanks shall be contained at all times.
- 7. A minimum freeboard of two feet shall be maintained in mud sumps/containment basins at all times.
- 8. Following well completion, residual solids and semisolids contained in tanks shall be tested for constituents listed in Monitoring and Reporting Program R7-2016-0039, attached hereto and made a part of this Order by reference, and for any additional constituents requested by the Colorado River Basin Water Board's Executive Officer (if any). Disposal of this material shall be in accordance with applicable laws and regulations based on analytical results of sampling and analysis.
- 9. Prior to removing solid material discharged to mud sumps/containment basins, the material shall be tested for constituents listed in Monitoring and Reporting Program R7-2016-0039 and for any additional constituents requested by the Colorado River Basin Water Board's Executive Officer (if any). Disposal of this material shall be in accordance with applicable laws and regulations based on analytical results of sampling and analysis.
- 10. Public contact with material containing geothermal wastes shall be precluded through fences, signs, or other appropriate alternatives.
- 11. Mud sumps/containment basins shall be constructed, operated and maintained to ensure their effectiveness, in particular:
 - a. Erosion control measures shall be implemented;

- b. Liners in mud sumps/containment basins shall be maintained to ensure proper function, and
- c. Solid material shall be removed from mud sumps/containment basins in a manner that minimizes the likelihood of damage to the liner.
- 12. Upon ceasing operation at the Facility, all waste, natural geologic material contaminated by any waste, and surplus or unprocessed material, shall be removed from the site and disposed of in accordance with applicable laws and regulations.
- 13. Surface drainage from tributary areas or subsurface sources, shall not contact or percolate through waste discharged at this site.
- 14. Water used for the process and site maintenance shall be limited to the amount necessary for the process, dust control, and for cleanup and maintenance.
- 15. The Discharger shall not cause or permit the release of pollutants or waste constituents in a manner that could cause or contribute to a condition of contamination or pollution of surface water or groundwater; or cause or contribute tonuisance conditions.

B. Prohibitions

- 1. Geothermal wells shall be drilled to minimize mixing of drilling mud and cuttings with geothermal brine. Only a de minimis amount of brine may commingle with drilling mud, primarily brines in that part of the formation displaced by the drill bit. Geothermal brine shall not be discharged into mud sumps/containment basins. Standing fluid observed in mud sumps/containment basins (if any) shall be removed immediately, stored in portable tanks, and returned to the geothermal resource, or properly disposed of off-site into permitted, Class II surface impoundments constructed pursuant to Title 27 standards. The Discharger shall submit to the Regional Board a shipping manifest or other appropriate documentation showing the geothermal brine disposal method and location.
- 2. The discharge of solid geothermal waste to mud sumps/containment basins, as a final means of disposal, is prohibited unless authorized by the Colorado River Basin Water Board's Executive Officer.

- The Discharger shall not cause degradation of any groundwater aquifer or supply water.
- 4. The discharge of waste to land not owned or controlled by the Discharger is prohibited.
- Use of geothermal brine or drilling muds for dust control on access roads or well pads is prohibited.
- 6. The discharge of hazardous or designated wastes to areas other than a Waste Management Unit authorized to receive such waste is prohibited.
- Permanent (longer than one year) disposal or storage of drilling waste to mud sumps/containment basins is prohibited, unless authorized by the Colorado River Basin Water Board's Executive Officer.
- 8. All mud sumps/containment basins must be lined. Drilling waste shall not penetrate the lining during the containment period.
- 9. Direct or indirect discharge of geothermal drilling wastes in mud sumps/containment basins or tanks to surface water or surface drainage courses (including canals, drains, or subsurface drainage systems) is prohibited, except as allowed under an appropriate NPDES permit.
- 10. The Discharger shall neither cause nor contribute to the contamination or pollution of groundwater via the release of waste constituents.

C. Provisions

- The Discharger shall comply with Monitoring and Reporting Program R7-2016-0039 and future revisions thereto, as specified by the Colorado River Basin Water Board's Executive Officer.
- 2. Unless otherwise approved by the Colorado River Basin Water Board Executive Officer, sample collection, storage, and analysis shall be performed according to the most recent version of Standard USEPA methods, and California Environmental Laboratory Accreditation Program (ELAP) rulings. Water and waste analysis shall be performed by a laboratory approved for these analyses by the State Water Resources Control Board Division of Drinking Water. Specific methods of analysis must be identified. If methods other than USEPA-approved methods or Standard Methods are used, the exact methodology must be submitted for review and approval by the Colorado River Basin Water Board Executive Officer prior to use. The director of the laboratory

whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Colorado River Basin Water Board. All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurement.

- 3. This Board Order is not transferable to any person without written approval by the Colorado River Basin Water Board's Executive Officer. Prior to any change in ownership of this operation, the Discharger shall notify the Colorado River Basin Water Board's Executive Officer in writing at least 30 days in advance. The notice must include a written transfer agreement between the existing owner and the new owner. At a minimum, the transfer agreement must contain a specific date for transfer of responsibility for compliance with this Board Order and an acknowledgment that the new Discharger is liable for compliance with this Order from the date of transfer. The Colorado River Basin Water Board may require modification or revocation and reissuance of this Board Order to change the name of the Discharger and incorporate other requirements as may be necessary under the Water Code.
- 4. Prior to any modification that would result in a material change in the quality or quantity of discharge, or material change in the location of the discharge, the Discharger shall report all pertinent information in writing to the Colorado River Basin Water Board's Executive Officer, and obtain revised waste discharge requirements before implementing the modification.
- 5. Synthetic liner placement and welding must be certified by the installer to verify factory requirements were satisfied, and no damage occurred during placement. Certification must be submitted, in writing, to the Colorado River Basin Water Board's Executive Officer, prior to use of the temporary mud sump/containment basin, or equivalent system approved by the Colorado River Basin Water Board's Executive Officer.
- 6. The Discharger shall ensure that all site-operating personnel are familiar with the content of these WDRs, and shall maintain a copy of these WDRs at the site.
- 7. These WDRs do not authorize violation of any federal, state, or local laws or regulations.
- 8. The Discharger shall implement Monitoring and Reporting Program R7-2016-

- 39 and revisions thereto to detect at the earliest opportunity any unauthorized discharge of waste constituents from the Facility, or any impairment of beneficial uses associated with (or caused by) discharges of waste to the mud sumps/containment basins.
- 9. The Discharger shall allow the Colorado River Basin Water Board, or an authorized representative, upon presentation of credentials and other documents, as may be required by law, to:
 - a. Enter upon the premises regulated by these, or the place where records must be kept under the conditions of these WDRs;
 - b. Have access to and copy, at reasonable times, any records that shall be kept under the condition of this Order;
 - Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under these WDRs; and
 - d. Sample or monitor at reasonable times, for the purpose of assuring compliance with these WDRs or as otherwise authorized by the California Water Code, any substances or parameters at this location.
- 10. The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control, and related appurtenances, that are installed or used by the Discharger to achieve compliance with these WDRs. Proper operation and maintenance also includes adequate laboratory controls, and appropriate quality assurance procedures.
- 11. The Discharger shall comply with the following:
 - a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity;
 - b. The Discharger shall retain records of all monitoring information, copies of all reports required by these WDRs, and records of all data used to complete the application of the these WDRs, for a period of at least five years from the date of the sample, measurement, report or application. This period may be extended by the Colorado River

Basin Water Board's Executive Officer at any time;

- c. Records of monitoring information shall include:
 - The date, exact place(s), and time of sampling or measurement(s);
 - ii. The individual(s) who performed the sampling or measurement(s);
 - iii. The date(s) analyses were performed;
 - iv. The individual(s) responsible for reviewing the analyses;
 - v. The results of such analyses; and
- d. Monitoring must be conducted according to test procedures described in the Monitoring and Reporting Program, unless other test procedures have been approved by the Colorado River Basin Water Board's Executive Officer.
- 12. The Ormat Nevada, Inc. is the Discharger primarily responsible compliance with these WDRs, and the Monitoring and Reporting Program for the Facility. The Discharger shall comply with all conditions of these WDRs. Violations may result in enforcement action, including administrative or court orders that require corrective action or impose civil monetary liability, or modification or revocation of these WDRs by the Colorado River Basin Water Board.
- 13. The Discharger shall furnish, under penalty of perjury, technical monitoring program reports, and such reports shall be submitted according to Chapter 30, Division 3, Title 23 of the California Code of Regulations, as data uploads and in Portable Document Format (PDF) electronically over the internet into the State Water Board's GeoTracker database. Documents that are normally mailed by the Discharger, such as regulatory documents, submissions, materials, data, and correspondence, to the Colorado River Basin Water Board shall be converted to Portable Document Format (PDF) and emailed to RB7-wdrs_paperless@waterboards.ca.gov. Within the subject line of the email cite "Wylie/Land Disposal/Ormat Nevada Geothermal." Documents that are 50 MB or larger should be transferred to a disk and mailed to the Colorado River Basin Water board office in Palm Desert. The Facility is identified in the California Integrated Water Quality Systems (CIWQS) by WDID 7A132225001.

- 14. The monitoring reports shall be certified to be true and correct, and signed, under penalty of perjury, by a duly authorized official of the company.
- 15. The Discharger's construction activity is subject to the Stormwater Construction General Permit (CGP), which became effective on July 1, 2010. To obtain coverage, the Discharger is required to electronically file Permit Registration Documents (PRDs), which includes a Notice of Intent (NOI) to be covered under the CGP, Storm Water Pollution Prevention Plan (SWPPP), and other compliance-related documents required by the CGP, and mail the appropriate permit fee to the State Water Resources Control Board (State Water Board).
- 16. These WDRs do not convey property rights of any sort, or any exclusive privileges; nor do they authorize injury to private property, invasion of personal rights, or infringement of federal, state, or local laws and regulations.
- 17. These WDRs may be modified, rescinded, or reissued for cause. The filing of a request by the Discharger to modify, or rescind or reissue these WDRs does not stay any WDR condition. Likewise, notification of planned changes or anticipated noncompliance does not stay any WDR condition. Causes for modification include: changes in land application plans, sludge use, or disposal practices; or promulgation of new regulations by the State Water Board or Colorado River Basin Water Board, including revisions to the Basin Plan.
- 18. The Discharger shall submit all documents including information requested by the Executive Officer, correspondence and self-monitoring and other reports electronically over the Internet into the State Water Resource Control Board's GeoTracker database. Groundwater monitoring raw data must be uploaded into GeoTracker in the correct data format and assigned to each monitoring well correlated by the monitoring well's geospatially surveyed location. Electronic submission of reports containing soil, vapor or groundwater data are required for subsurface investigation and remediation at sites in the leaking Underground Storage Tank; Spills, Leaks, Investigation and Cleanup; Department of Defense; and Land Disposal

Ormat Nevada, Inc. Mud Sumps/Containment Basins Order R7-2016-0039

Programs, according to Chapter 30, Division 3, Title 23 of the California Code of Regulations.

I, Jose L. Angel, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Colorado River Basin Region, on November 17, 2016.

Original signed by

JOSE L. ANGEL, P.E. Executive Officer