

Colorado River Basin Regional Water Quality Control Board

July 7, 2016

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Steven C. Schindler, General Manager
Big Bear Area Regional Wastewater Agency
P.O. Box 517
Big Bear City, CA 92314-0517

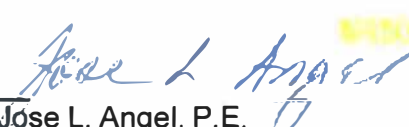
Dear Mr. Schindler,

SUBJECT: BOARD ORDER R7-2016-0026, WASTE DISCHARGE REQUIREMENTS FOR BIG BEAR AREA REGIONAL WASTEWATER AGENCY, EXPORT OF RECYCLED WATER TO LUCERNE VALLEY, LUCERNE VALLEY – SAN BERNARDINO COUNTY

Enclosed is a copy of Board Order R7-2016-0026 adopted by the California Regional Water Quality Control Board, Colorado River Basin Region on June 30, 2016, during its public meeting in the Palm Desert, California.

Should you have any questions concerning this Board Order, please contact Jose Cortez, P.E., Water Resources Control Engineer, at jose.cortez@waterboards.ca.gov or (760) 776-8963.

Sincerely,


Jose L. Angel, P.E.
Executive Officer
Colorado River Basin
Regional Water Quality Control Board

JC/mc

Enclosures: Waste Discharge Requirements Order R7-2016-0026

cc: Fred Uhler, Big Bear Area Regional Wastewater Agency

File: Big Bear ARWA, WDID 7A360100011, CW-208930, GT- WDR100027897, R7-2016-0026

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

BOARD ORDER R7-2016-0026

WASTE DISCHARGE REQUIREMENTS
FOR
BIG BEAR AREA REGIONAL WASTEWATER AGENCY, OWNER/OPERATOR
EXPORT OF RECYCLED WATER TO LUCERNE VALLEY
Lucerne Valley – San Bernardino County

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

1. Big Bear Area Regional Wastewater Agency (BBARWA or Discharger), P. O. Box 517, Big Bear City, California 92314, owns 480 acres in the Lucerne Valley, of which 340 acres are irrigated with recycled water from the Discharger's Wastewater Treatment Plant (WWTP). There are an additional 140 acres available for irrigation, also in the Lucerne Valley. BBARWA's WWTP provides sewerage service to the City of Big Bear Lake, Big Bear City Community Services District, and County Service Area 53-B. The WWTP is located at 122 Palomino Drive, Big Bear City, California 92314, and has a design treatment capacity of 4.89 million gallons-per-day (MGD) and a hydraulic capacity of 9.2 MGD.
2. The WWTP is located outside the boundary of the Colorado River Basin Water Board and is regulated by the California Regional Water Quality Control Board, Santa Ana Region (Santa Ana Water Board) under Waste Discharge Requirements (WDRs) Order R8-2005-0044.
3. The WWTP consists of: preliminary treatment, secondary treatment, and sludge drying and treatment. Secondary treated wastewater from the WWTP is disposed through three possible discharge points that are designated in Board Order R8-2005-0044 as Point 001, Point 002 and Point 003. The discharges from the WWTP at Points 002 and 003 are regulated by the Santa Ana Water Board. Most of the treated wastewater is discharged through Discharge Point 001 into the Lucerne Valley to irrigate fodder, fiber, and seed crops.
4. This Board Order regulates the discharge from the WWTP at Point 001. Infrastructure associated with this discharge includes a concrete-lined reservoir and two overflow ponds that are used to dispose of treated recycled wastewater by percolation and evaporation in the Lucerne Valley (Lucerne Valley Facility) located on Assessor's Parcel Number (APN) 0449-082-040000.
5. The Lucerne Valley Facility has been subject to WDRs adopted in Colorado River Basin Water Board Order 01-156 adopted November 14, 2001.
6. The WDRs are being updated to comply with current laws and regulations as set forth in the California Water Code (CWC) and the California Code of Regulations (CCR) and to incorporate any changes in ownership or operation undertaken by the Discharger.
7. The Lucerne Valley Facility is assigned California Integrated Water Quality System (CIWQS) number CW- CW-208930; Waste Discharger Identification (WDID) number 7A360100011, and GeoTracker Global ID number WDR100027897.

Wastewater Treatment and Discharge

8. The Lucerne Valley Facility is located on 480 acres owned by BBARWA and located near the intersection of State Hwy 247 (Old Woman Springs Road) and Camp Rock Road in the Lucerne Valley of San Bernardino County in Section 14, Township 4 North, Range 1 East, San Bernardino Base & Meridian, as shown in Attachment A, Vicinity Map, incorporated herein, and made part of this Board Order by reference.
9. Wastewater that is discharged at the Lucerne Valley Facility goes through preliminary and secondary treatment at the WWTP before it is sent via gravity to the concrete reservoir at the Lucerne Valley Facility. The WWTP components that are used for treatment are described below:
 - a. Preliminary Treatment. Untreated wastewater flows to the preliminary treatment system, which consists of bar screens, aerated grit chamber with grit washer, and a flow bypass channel. This treatment stage removes screenings, rag material and grit.
 - b. Secondary Treatment. Effluent flows by gravity from the preliminary treatment system to three parallel oxidation ditches for secondary (biological) treatment and timed processes for nutrient (nitrogen) removal. The number of ditches in operation depends on the seasonal fluctuations of the influent flow. The effluent from the oxidation ditches flows into a system of three secondary clarifiers for removal of floatable and settleable solids/materials. The secondary treated effluent flows to two cement-lined balancing chambers and then flows to equalization storage ponds at the WWTP until pumped for offsite irrigation disposal. A process flow diagram of the WWTP is shown on Attachment B, incorporated herein, and made part of this Board Order by reference.
 - c. Offsite Irrigation/Disposal. Undisinfected secondary treated wastewater is pumped from the WWTP's main pump building (5.2 MGD) or auxiliary pump building (9.2 MGD) approximately 16.5 miles to an offsite 2.26-million gallon concrete-lined reservoir (undisinfected secondary recycled water reservoir). This reservoir is located one mile south of the irrigation site. Wastewater from the reservoir flows by gravity through an outfall line connected to the irrigation system. In the event of an overflow at the concrete-lined reservoir, the wastewater flows by gravity to earthen overflow ponds located adjacent to the irrigation site.
10. Approximately 2.01 MGD of undisinfected secondary recycled water (as defined in Title 22 California Code of Regulations Section 60301.900) is discharged to the Lucerne Valley Facility for irrigation of fodder and fiber crops. Undisinfected secondary wastewater has been approved by the California Department of Public Health (DPH) [now State Water Resources Control Board (SWRCB) Division of Drinking Water (DDW)] for irrigation use at this site. Approximately 340 acres are being irrigated at the Lucerne Valley Facility, with an additional 140 acres available for irrigation at the site. The effluent discharge limit of 4.8 MGD in this Board Order is based on the capacity of the irrigated crops to take up nitrogen. The Lucerne Valley Facility site layout is shown in Attachment C, incorporated herein, and made part of this Board Order by reference.
11. The SWRCB's Division of Drinking Water has established statewide reclamation criteria in Title 22 CCR Section 60301 et seq. for the use of recycled water and has developed guidelines for specific uses. Title 22 CCR Section 60304(d)(4) allows the use of undisinfected secondary recycled water for the surface irrigation of fodder and fiber crops and pasture for animals not producing milk for human consumption. BBARWA's Title 22

Engineering Report was initially approved on November 3, 1980, by the California DHS, (now DDW). The Title 22 report was last updated November 4, 1998, to allow for the use of tertiary treated wastewater in the Big Bear Area.

12. The grazing of sheep on the irrigation site has been allowed under certain conditions, as outlined in a letter from Colorado River Basin Water Board staff dated November 15, 1994, and under the conditions shown in Discharge Specification D.22 of this Order.
13. No sewage sludge is discharged at the recycled water reuse site.
14. BBARWA's Self-Monitoring Reports (SMRs) from April 2011 through March 2016 characterize the WWTP effluent as follows:

| <u>Constituent</u> | <u>Units</u> | <u>Average</u> | <u>Maximum</u> | <u>Minimum</u> |
|-------------------------------------|-------------------|----------------|----------------|----------------|
| Flow | MGD | 2.01 | 4.18 | 1.42 |
| 20° C BOD ₅ ¹ | mg/L ² | 6 | 17 | 2 |
| TSS ³ | mg/L | 13 | 48 | 5 |
| pH | s.u. ⁴ | 7.8 | 8.0 | 7.4 |
| TDS ⁵ | mg/L | 450 | 519 | 354 |
| Nitrate as N | mg/L | 3.5 | 21.6 | 0.1 |
| Total Nitrogen | mg/L | 6.9 | 28 | 1.9 |
| Chloride | mg/L | 52 | 61 | 34 |
| Sulfate | mg/L | 40 | 48 | 26 |
| Fluoride | mg/L | 0.37 | 0.54 | 0.24 |
| Boron | mg/L | 0.18 | 0.25 | <0.1 |

Hydrogeologic Conditions at the Lucerne Valley Facility

15. BBARWA installed one groundwater monitoring well in 1979 and three more groundwater monitoring wells in 1991 (MW-1, MW-2 and MW-3). Monitoring well MW-3 replaced the 1979 monitoring well, which was never monitored because the groundwater level is below the bottom of the well. Previous monitoring did not require depth to groundwater monitoring; however, the Discharger's reports indicate that MW-1 is the upgradient well. This Board Order will require depth to groundwater monitoring in order to establish the groundwater gradient.

¹ 5-day biochemical oxygen demand at 20 degrees Celsius.

² milligrams per Liter

³ Total Suspended Solids

⁴ Standard pH units

⁵ Total Dissolved Solids

16. An irrigation well (14M1) was installed immediately northwest of the overflow ponds in 1986. The distance from well 14M1 to the nearest overflow pond is 180 feet.
17. BBARWA has reported that the depth to groundwater at the Lucerne Valley Facility is a minimum 150 feet below ground surface.
18. Groundwater monitoring data collected from monitoring wells MW-1, MW-2 and MW-3 during the period from 2009 to the present show the following average characteristics:

| <u>Constituent</u> | <u>Units</u> | <u>MW-1</u> | <u>MW-2</u> | <u>MW-3</u> |
|-----------------------------------|--------------|-------------|-------------|-------------|
| Depth to Groundwater ⁶ | ft | 176 | 130 | 141 |
| TDS | mg/L | 464 | 718 | 619 |
| Total Nitrogen | mg/L | 10.6 | 16.2 | 17.6 |
| Nitrate as Nitrogen | mg/L | 9.4 | 15.6 | 17.2 |
| Sulfate | mg/L | 63.3 | 203 | 173 |
| Chloride | mg/L | 106 | 122 | 135 |
| Fluoride | mg/L | 0.25 | 0.14 | 0.25 |
| Boron | mg/L | <0.01 | <0.01 | <0.01 |
| VOCs – MTBE | ug/L | 9.0 | ND | ND |
| VOCs – Methylene Chloride | ug/L | ND | 1.4 | 1.1 |
| VOCs – Bromomethane | ug/L | ND | ND | 1.3 |

19. An analysis of groundwater monitoring data in monitoring wells MW1, MW2 and MW3 from 2000 to the present indicates that concentrations for nitrate, sulfate and chloride are decreasing in the downgradient wells (MW2 and MW3) and increasing in the upgradient well (MW1). This Board Order will require that the Discharger submit a technical report providing an analysis of the water quality impacts by nitrogen and TDS to groundwater resulting from the discharge and to report annual trend monitoring of the data collected in the groundwater monitoring network. The monitoring frequency for total nitrogen and nitrate in the groundwater monitoring wells will be increased from annually to monthly for 12 months and quarterly thereafter to establish groundwater gradient and flow direction. In addition, this Board Order will require annual reporting of nitrogen application of fertilizers and in farming practices and provide a nitrogen and water use balance for the recycled water used on-site.
20. Annual precipitation in the Lucerne Valley region averages about 5.5 inches. Annual evapotranspiration rate is approximately 68 inches.
21. The project lies beyond the toe of a large alluvial fan emanating from the mouth of Cushenbury Canyon in the eastern portion of Lucerne Valley.

⁶ Measurement made in 2004.

22. There are several domestic wells in the vicinity of the on-site evaporation/percolation ponds.
23. Water supply to the Big Bear area communities is from numerous groundwater production wells located in Big Bear Valley. TDS in the water supply averages about 280 mg/L based on data reported in the BBARWA's SMRs from 2008 through 2015.
24. Regional groundwater flow in the irrigation and disposal area is generally to the northwest.
25. BBARWA conducted a geotechnical study referenced as *Geotechnical Study, Irrigation Site, Lucerne Valley Area, San Bernardino County, California for Big Bear Area Regional Wastewater Agency, July 29, 1977*, as an initial investigation of the site for use for irrigation. The report shows that the site is underlain by soils consisting of fine to coarse, clean to silty sands containing various amounts of gravel from 5 to 24 feet below ground surface. Beneath this, to a depth of 60 to 100 feet below ground surface, the soil consists of fine to medium silty sands containing varying amounts of gravel, and is locally cemented with calcium carbonate accumulated during deposition of the sediments. Bedrock underlies the older alluvium at a depth of 400 to 600 feet.

Basin Plan, Beneficial Uses, and Regulatory Considerations

26. The Water Quality Control Plan for the Colorado River Basin Region of California (Basin Plan), which was adopted on November 17, 1993, and amended on November 13, 2012, designates the beneficial uses of ground and surface waters in this Region, and contains implementation programs and policies to achieve water quality objectives, including narrative objectives for ground water quality, in Chapter 3, section IV, Ground Water Objectives.
27. The discharge is within the Lucerne Hydrologic Unit. The beneficial uses of groundwater in the Lucerne Hydrologic Unit include:
 - a. Municipal supply (MUN),
 - b. Industrial supply (IND), and
 - c. Agricultural supply (AGR).
28. These WDRs implement numeric and narrative water quality objectives for ground and surface waters established by the Basin Plan. The numeric objectives for groundwater designated for municipal and domestic supply are the maximum contaminant levels (MCLs) specified in sections 64431, 64444, and 64678 of Title 22 of the California Code of Regulations (CCR), and the bacteriological limits specified in section 64426.1 of Title 22, CCR.
29. 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 discharges to meet maximum contaminant levels designed to protect human health and ensure that water is safe for domestic use.
30. Section 13267 of the CWC authorizes the Colorado River Basin Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (MRP) establishes monitoring and reporting requirements to implement federal and state

requirements.

31. This Order establishes WDRs pursuant to Division 7, Chapter 4, Article 4, of the CWC for discharges that are not subject to regulation under Clean Water Act (CWA) section 402 (33 U.S.C. section 1342).
32. Pursuant to CWC section 13263(g), the discharge of waste is a privilege, not a right, and adoption of this Order does not create a vested right to continue the discharge.
33. The discharge authorized by this Board Order, and treatment and storage facilities associated with discharges of treated municipal wastewater, except for discharges of residual sludge and solid waste, are exempt from the requirements of the Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste, as set forth in Title 27, CCR, Division 2, Subdivision 1. This exemption is based on section 20090(a) of Title 27, which states in relevant part that discharges of domestic sewage or treated effluent are exempt provided that such discharges are regulated by WDRs, or for which WDRs have been waived, and which are consistent with applicable water quality objectives, and treatment or storage facilities.

Groundwater Degradation

34. State Water Board Resolution 68-16, "Policy with Respect to Maintaining High Quality Waters of the State"(Resolution 68-16) states:

"Whenever the existing quality of water is better than the quality established in policies as of the date on which such policies become effective, such existing high quality will be maintained until it has been demonstrated to the State that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the policies."

Resolution 68-16 further states:

"Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control [BPTC] of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained."

35. Some degradation of groundwater from the discharge to the evaporation/percolation ponds is consistent with Resolution 68-16, provided that the degradation:
 - a. Is confined to a reasonable area;
 - b. Is minimized by means of full implementation, regular maintenance, and optimal operation of BPTC measures;
 - c. Is limited to waste constituents typically encountered in domestic wastewater; and
 - d. Does not result in the loss of any beneficial use as prescribed in the applicable basin plan, or violation of any water quality objective.
36. The discharge of wastewater as permitted by Order R7-2016-0026 and Order R8-2005-

0044 reflects BPTC. The controls assure the discharge does not create a condition of pollution or nuisance, and that water quality will be maintained, which is consistent with the anti-degradation provisions of Resolution No. 68-16. The Discharger incorporates:

- a. A WWTP that provides treatment to secondary standards and nitrification/denitrification processes;
- b. An operation and maintenance manual;
- c. Staffing to assure proper operation and maintenance;
- d. A network of groundwater monitoring wells at the recycle site;
- e. A requirement for an Irrigation Management Plan; and
- f. A standby emergency power generator of sufficient size to operate the treatment plant and ancillary equipment during periods of loss of commercial power.

Accordingly, the discharge as authorized is consistent with the anti-degradation provisions of Resolution 68-16 and the applicable water quality objectives.

Constituents of Concern

37. Constituents in domestic wastewater effluent that present the greatest risk to groundwater quality are nitrogen, coliforms (pathogen-indicator organisms), and TDS. Recycled water used for irrigation at the Lucerne Valley Facility is treated to secondary standards and has undergone substantial removal of soluble organic matter, solids, and nitrogen treatment.
38. Title 22, CCR, section 64431, Maximum Contaminant Level (MCL) for Nitrate plus Nitrite as Nitrogen is 10 mg/L. To account for the fate of transport for the various components of Total Nitrogen, as a conservative value it is assumed that all nitrogen present converts to nitrate/nitrite. BBARWA's SMRs report an average of 6.9 mg/L for Total Nitrogen between April 2011 and March 2015. Prior to the operation of nitrification/denitrification processes at the WWTP, groundwater analyses at the irrigation and disposal site demonstrated degradation by nitrates. This Board Order will require the Discharger to provide a technical report in the form of a study that analyses the impacts to groundwater by the discharge and an evaluation of water quality trends. In addition, this Board Order will implement a monthly average effluent limitation of 10 mg/L for total nitrogen as a means to mitigate groundwater degradation.
39. While secondary treatment reduces fecal coliform densities by 90 to 99%, the remaining organisms in effluent are still 10^5 to 10^6 MPN/100 ml (United States Environmental Protection Agency, Design Manual, Municipal Wastewater Disinfection; October 1986). Given the depth to groundwater, it is not likely that pathogen-indicator bacteria will reach groundwater at densities exceeding those prescribed in Title 22, CCR.
40. The typical incremental addition of dissolved salts from domestic water usage is 150 to 380 mg/L. Domestic water supply to the Big Bear area communities showed an average concentration of about 280 mg/L during the period of 2011 to 2016. From April 2011 to March 2016 treated wastewater discharged had an average TDS concentration of approximately 450 mg/L. Thus, the average TDS increase over the domestic water supply in the discharge during the same time period was about 170 mg/L. Treated wastewater discharged by the WWTP has a TDS limit of a maximum of 400 mg/L above the domestic source water as regulated by Board Order 01-156. This Board Order will

require the Discharger to provide a technical report in the form of a study that analyzes the impacts to groundwater by the discharge and an evaluation of water quality trends. The results of the study will be used to establish an appropriate effluent limitation for TDS.

CEQA and Public Participation

41. In accordance with section 15301, Chapter 3, Title 14, CCR, 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, Pub. Resources Code, section 21000 et seq.).
42. The Colorado River Basin Water Board has notified the Discharger and all known interested agencies and persons of its intent to draft WDRs for this discharge, and has provided them with an opportunity for a public meeting and an opportunity to submit comments.
43. The Colorado River Basin Water Board, in a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, that Board Order 01-156 is rescinded upon the effective date of this Order, except for enforcement purposes, and, 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. Effluent Limitations

1. Effluent discharged into the overflow evaporation/percolation ponds for disposal shall not exceed the following effluent limits:

| <u>Constituent</u> | <u>Units</u> | <u>30-Day Arithmetic Mean</u> | <u>7-Day Arithmetic Mean</u> | <u>Daily Maximum</u> |
|------------------------|--------------|-----------------------------------|----------------------------------|--------------------------|
| 20° C BOD ₅ | mg/L | 30 | 45 | ----- |
| Total Suspended Solids | mg/L | 30 | 45 | ----- |
| Chloride | mg/L | 60 | ----- | 80 |
| Sulfate | mg/L | 60 | ----- | 80 |
| Boron | mg/L | ----- | ----- | 0.75 |
| Total Nitrogen | mg/L | 10 | ----- | ----- |

2. The 30-day average daily dry weather discharge for irrigation shall not exceed 4.8 MGD.
3. Effluent discharge for irrigation shall not have a pH below 6.0 or above 9.0.

B. Groundwater Limitations

1. Discharge at the Lucerne Valley Facility shall not cause groundwater to:
 - a. Contain constituents in excess of California MCLs, as set forth in the California Code

of Regulations, Title 22, section 64426.1 for bacteriological constituents; section 64431 for inorganic chemicals; section 64444 for organic chemicals; and section 64678 for determination of exceedances of lead and copper action levels.

- b. Contain taste or odor-producing substances in concentrations that adversely affect beneficial uses as a result of human activity.

C. Discharge Prohibitions

1. Discharge of waste classified as "hazardous", as defined in Title 23, CCR, section 2521(a), or "designated", as defined in California Water Code section 13173, is prohibited.
2. Discharge of treated wastewater at a location other than the designated disposal areas or as recycled water used for irrigation at approved use areas, is prohibited.
3. The discharge of recycled water to any drainage courses or surface waters is prohibited.
4. Discharge of waste to land not owned or authorized for such use by the Discharger is prohibited.
5. Surfacing or ponding of wastewater outside of the designated disposal locations is prohibited.
6. Bypass, overflow, discharge, or spill of untreated or partially treated waste is prohibited.
7. Application recycled water and fertilizers containing nitrogen at a rate greater than the agronomic uptake rate of the crops grown is prohibited.

D. Discharge Specifications

1. The discharge shall not cause pollution or nuisance as defined in sections 13050(l) and 13050(m) of Division 7 of the California Water Code, respectively.
2. A minimum depth of freeboard of two (2) feet shall be maintained at all times in the overflow earthen basins and concrete-lined reservoir.
3. The overflow ponds shall be managed to prevent breeding of mosquitoes. In particular:
 - a. An erosion control program should assure that small coves and irregularities are not created around the perimeter of the water surface.
 - b. Weeds shall be minimized through control of water depth, harvesting, or herbicides.
 - c. Dead algae, vegetation, and debris shall not accumulate on the water
4. All storage and disposal areas shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.
5. The overflow ponds shall have sufficient capacity to accommodate allowable wastewater flow, design seasonal precipitation, ancillary inflow, and infiltration during the non-irrigation season. Design seasonal precipitation shall be based on total

annual precipitation using a return period of 100 years, distributed monthly in accordance with historical rainfall patterns.

6. Public contact with non-disinfected wastewater shall be precluded through such means as fences, signs, and other acceptable alternatives. The non-disinfected wastewater is not approved for off-site distribution. Conspicuous signs shall be posted in a prominent location in each area where non-disinfected wastewater is stored on-site. Each sign or label with "Non-disinfected wastewater - No body contact or drinking" wording shall be displayed as well as the international warning symbol.
7. Objectionable odors originating at the Lucerne Valley Facility shall not be perceivable beyond the limits of the wastewater treatment and disposal area.
8. The overflow ponds and concrete-lined reservoir shall be maintained so they will be kept in aerobic conditions.
9. The dissolved oxygen content in the upper zone (one foot) of the concrete reservoir and overflow ponds shall not be less than 1.0 mg/L.
10. There shall be no surface flow of wastewater away from the designated disposal areas.
11. On-site wastes, including windblown spray from recycled water application, shall be strictly confined to the lands specifically designated for the disposal operation, and on-site irrigation practices shall be managed so there is no runoff of effluent from irrigated areas.
12. No irrigation with, or impoundment of, undisinfected secondary recycled water shall take place within 150 feet of any domestic water supply well.
13. No spray irrigation of any recycled water shall take place within 100 feet of a residence or a place where public exposure could be similar to that of a park, playground or schoolyard.
14. Except as allowed under Section 7604 of Title 17, California Code of Regulations, no physical connection shall be made or allowed to exist between any recycled water system and any separate system conveying potable water.
15. Undisinfected secondary recycled water, as defined in Title 22, Section 60301.900 is limited only for irrigation in the following applications:
 - a. Orchards where the recycled water does not come into contact with the edible portion of the crop,
 - b. Vineyards where the recycled water does not come into contact with the edible portion of the crop,
 - c. Non-food bearing trees (Christmas tree farms are included in this category provided no irrigation with recycled water occurs for a period of 14 days prior to harvesting or allowing access by the general public),
 - d. Fodder and fiber crops and pasture for animal not producing milk for human consumption,

- e. Seed crops not eaten by humans,
 - f. Food crops that must undergo commercial pathogen-destroying processing before being consumed by humans, and
 - g. Ornamental nursery stock and sod farms provided no irrigation with recycled water occurs for a period of 14 days prior to harvesting, retail sale, or allowing access by the general public.
16. No recycled water used for irrigation, or soil that has been irrigated with recycled water, shall come into contact with edible portions of food crops eaten raw by humans.
 17. The storage, delivery, or use of recycled water shall not individually or collectively, directly or indirectly, result in pollution, or adversely affect water quality, as defined in the CWC.
 18. The delivery or use of recycled water shall be in conformance with the reclamation criteria contained in Title 22, or amendments thereto, for the irrigation of food crops, irrigation of fodder, fiber, and seed crops, landscape irrigation, supply of recreational impoundments and ground water recharge.
 19. Prior to delivering recycled water to any new user, BBARWA shall submit to the Colorado River Basin Water Board a report discussing any new distribution system being constructed by the Discharger to provide service to the new user.
 20. Recycled water shall not be delivered to any new user who has not first received a discharge permit from the Colorado River Basin Water Board and approval from the SWRCB's Division of Drinking Water.
 21. Treated or untreated sludge or similar solid waste materials shall be disposed at locations approved by the Colorado River Basin Water Board's Executive Officer.
 22. Grazing of sheep on the irrigation site is allowed only under the following conditions, unless otherwise approved by the Colorado River Basin Water Board 's Executive Officer:
 - a. Grazing will only be conducted in October or November after the last cutting of hay has been baled;
 - b. Grazing animals will not be allowed into a portion of the site until 10 days after it was last irrigated;
 - c. Temporary fences will be erected to contain the grazing animals in an area of 40 acres or less;
 - d. Only ewes that are about to lamb or ewes with newly born will be grazed;
 - e. No animals will be sold for slaughter within 90 days after grazing.
 - f. No milk produced by sheep that have grazed at the irrigation site shall be used for human consumption.

E. Special Provisions

1. Within **three months** of the adoption of this Board Order, the Discharger shall submit a technical report that is a work plan, for approval by the Colorado River Basin Water

Board's Executive Officer, to conduct a study of the groundwater in the vicinity of the recycled water irrigation use site. The objective of the study shall be to address the impacts that the discharges to unlined ponds and the irrigation area have on areal groundwater quality. The Discharger shall submit the final technical report containing the results of the study within 18 months of the adoption of this Board Order and shall propose recommendations to mitigate the effects of nitrogen loading to groundwater and propose an appropriate effluent limit for TDS.

2. Within six months of the adoption of this Board Order, the Discharger shall prepare and submit an Irrigation Management Plan that includes a water balance and nutrient balance to assure that recycled water is applied at appropriate rates. The Irrigation Management Plan shall be submitted for approval by the Colorado River Basin Water Board's Executive Officer.
3. Within nine months of the adoption of this Order, the Discharger shall submit to the Colorado River Basin Water Board office a technical report that includes a copy of the Maintenance and Operations Manual for the Lucerne Valley Facility.

F. Standard Provisions

1. The Discharger shall comply with all of the conditions of this Board Order. Noncompliance is a violation of the Porter-Cologne Water Quality Control Act (CWC, section 13000 et seq.), and is grounds for enforcement action.
2. The Discharger shall comply with Monitoring and Reporting Program R7-2016-0026 and future revisions thereto as specified by the Colorado River Basin Water Board's Executive Officer.
3. The Discharger shall comply with the Electronic Submittal of Information (ESI) requirements by submitting all correspondence and reports required under Monitoring and Reporting Program (MRP) R7-2016-0026, and future revisions thereto, including groundwater monitoring data and discharge location data (latitude and longitude), correspondence, and pdf monitoring reports to the State Water Resources Control Board GeoTracker <https://geotracker.waterboards.ca.gov/> database. Documents that are normally mailed by the Discharger, such as regulatory documents, narrative technical monitoring program reports, and such reports submissions, materials, data, and correspondence, to the Colorado River Basin Water Board shall also be uploaded into GeoTracker in the appropriate Microsoft software application, such as word, excel, or an Adobe Portable Document Format (PDF) file. Large documents are to be split into manageable file sizes appropriately labelled and uploaded into GeoTracker.
4. All technical reports required in conjunction with this Order are required pursuant to Section 13267 of the CWC, and shall include a statement by the Discharger, or an authorized representative of the Discharger, certifying under penalty of perjury under the laws of the State of California, that the report is true, complete, and accurate.
5. In accordance with California Business and Professions Code Sections 6735, 7835, and 7835.1, engineering and geologic evaluations and judgments shall be performed by or under the direction of California registered professionals (i.e., civil engineer, engineering geologist, geologist, etc.) competent and proficient in the fields pertinent to the required activities. All technical reports specified herein that contain work plans, that describe the conduct of investigations and studies, or that contain technical conclusions and

recommendations concerning engineering and geology shall be prepared by or under the direction of appropriately qualified professionals, even if not explicitly stated. Each technical report submitted by the Discharger shall contain a statement of qualifications of the responsible licensed professionals as well as the professional's signature and/or stamp of the seal. Additionally, to the extent that preparation of a required technical report involves field activities, field activities shall be conducted under the direct supervision of one or more of these professionals.

6. The Discharger shall not cause degradation of any water supply in accordance with State Water Board Resolution 68-16.
7. Standby power generating facilities shall be available to operate the plant during a commercial power failure.
8. Adequate measures shall be taken to assure that flood or surface drainage waters do not erode or otherwise render portions of the discharge facilities inoperable.
9. The use of recycled water at the Lucerne Valley Facility shall be supervised by persons possessing certification of appropriate grade pursuant to section 3680, Chapter 26, Division 3, Title 23 of the California Code of Regulations.
10. The Discharger shall at all times properly operate and maintain all systems and components of collection, treatment and control, installed or used by the Discharger to achieve compliance with this Board Order. Proper operation and maintenance includes effective performance, adequate process controls, and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities/systems when necessary to achieve compliance with this Board Order. All systems in service or reserved shall be inspected and maintained on a regular basis. Records of inspections and maintenance shall be retained, and made available to the Colorado River Basin Water Board's Executive Officer on request.
11. The Discharger shall ensure that all site-operating personnel are familiar with the content of this Board Order, and shall maintain a copy of this Board Order at the site.
12. 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 the premises regulated by this Board Order, or the place where records are kept under the conditions of this Board Order;
 - b. Have access to and copy, at reasonable times, records kept under the conditions of this Board Order;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Board Order; and
 - d. Sample or monitor at reasonable times, for the purpose of assuring compliance with this Board Order or as otherwise authorized by the California Water Code, any substances or parameters at this location.
13. Ponds shall be managed to prevent breeding of mosquitoes. In particular,
 - a. An erosion control program should assure that small coves and irregularities are not

- created around the perimeter of the water surface.
- b. Weeds shall be minimized through control of water depth, harvesting, or herbicides.
 - c. Dead algae, vegetation, and debris shall not accumulate on the water surface.
14. Disposal of oil and grease, biosolids, screenings, and other solids collected from liquid wastes shall be pursuant to Title 27, and the review and approval of the Colorado River Basin Water Board Executive Officer.
 15. Any proposed change in use or disposal of biosolids requires the approval of the Colorado River Basin Water Board Executive Officer, and U.S. Environmental Protection Agency Regional Administrator, who must be notified at least 90 days in advance of the change.
 16. Sludge use and disposal shall comply with Federal and State laws and regulations, including permitting requirements, and technical standards in 40 CFR Part 503. If the State and Colorado River Basin Water Boards are delegated the authority to implement 40 CFR Part 503 regulations, this Order may be revised to incorporate appropriate time schedules and technical standards. The Discharger shall comply with the standards and time schedules in 40 CFR part 503, whether or not part of this Order.
 17. The Discharger shall provide a plan as to the method, treatment, handling and disposal of sludge that is consistent with all State and Federal laws and regulations and obtain prior written approval from the Colorado River Basin Water Board specifying location and method of disposal, before disposing of treated or untreated sludge, or similar solid waste.
 18. The Discharger shall maintain a permanent log of all solids hauled away from the treatment facility for use/disposal elsewhere and shall provide a summary of the volume, type (screenings, grit, raw sludge, digested sludge), use (agricultural, composting, etc.), and the destination in accordance with the MRP of this Board Order. Sludge that is stockpiled at the treatment facility shall be sampled and analyzed for those constituents listed in the sludge monitoring section of the MRP of this Board Order and as required by Title 40, Code of Federal Regulations, Part 503. The results of the analyses shall be submitted to the Colorado River Basin Water Board as part of the MRP.
 19. The Discharger shall provide a report to the Colorado River Basin Water Board when it determines that the plant's average dry-weather flow rate for any month exceeds 80 percent of the design capacity. The report should indicate what steps, if any, the Discharger intends to take to provide for the expected wastewater treatment capacity necessary when the plant reaches design capacity.
 20. Prior to implementing a modification that results in a material change in the quality or quantity of wastewater treated or discharged, or a material change in the location of discharge, the Discharger shall report all pertinent information in writing to the Colorado River Basin Water Board, and obtain revised requirements.
 21. Prior to a change in ownership or management of the Lucerne Valley Facility, the Discharger shall transmit a copy of this Board Order to the succeeding owner/operator, and forward a copy of the transmittal letter to the Colorado River Basin Water Board.
 22. The Discharger shall provide adequate notice to the Colorado River Basin Water Board

Executive Officer of the following:

- a. Any substantial change in the volume or character of pollutants introduced into any treatment facility described in the Findings of this Board Order, by an existing or new source; and
 - b. Any planned physical alteration or addition to the facilities described in this Board Order, or change planned in the Discharger's sludge use or disposal practice, where such alterations, additions, or changes may justify the application of Board Order conditions that are different from or absent in the existing Board Order, including notification of additional disposal sites not reported during the Board Order application process, or not reported pursuant to an approved land application plan.
23. The Discharger shall report orally, any noncompliance that may endanger human health or the environment. The noncompliance shall be reported immediately to the Colorado River Basin Water Board's Executive Officer at (760) 346-7491, and the California Office of Emergency Services at (800) 852-7550 as soon as:
- a. The Discharger has knowledge of the discharge,
 - b. Notification is possible, and
 - c. Notification will not substantially impede cleanup or other emergency measures.

During non-business hours, the Discharger shall leave a message on the Colorado River Basin Water Board's office voice recorder at the above listed number. Incident information shall be provided orally as soon as possible and within 24 hours from the time the Discharger becomes aware of the incident. A written report shall also be provided within five (5) business days of the time the Discharger becomes aware of the incident. The written report shall contain a description of the noncompliance and its cause, the period of noncompliance, the anticipated time to achieve full compliance, and the steps taken or planned, to reduce, eliminate, and prevent recurrence of the noncompliance. The Discharger shall report all intentional or unintentional spills in excess of one thousand (1,000) gallons occurring within the Colorado River Basin Water Board's jurisdiction, including the Lucerne Valley Facility or disposal line, in accordance with the above time limits.

24. The Discharger shall report all instances of noncompliance. Reports of noncompliance shall be submitted with the Discharger's next scheduled SMRs or earlier if requested by the Colorado River Basin Water Board's Executive Officer, or if required by an applicable standard for sludge use and disposal.
25. By-pass (i.e., the intentional diversion of waste streams from any portion of the treatment facilities, except diversions designed to meet variable effluent limits) is prohibited. The Colorado River Basin Water Board may take enforcement action against the Discharger for by-pass unless:
- a. By-pass was unavoidable to prevent loss of life, personal injury, or severe property damage. Severe property damage means substantial physical damage to property, damage to the treatment facilities that causes them to be inoperable, or substantial and permanent loss of natural resources reasonably expected to occur in the absence of a by-pass. Severe property damage does not mean economic loss caused by delays in production; and

There were no feasible alternatives to by-pass, such as the use of auxiliary treatment

facilities or retention of untreated waste. This condition is not satisfied if adequate back-up equipment was not installed to prevent by-pass occurring during equipment downtime, or preventive maintenance.

b. By-pass is:

- i. Required for essential maintenance to assure efficient operation; and
- ii. Neither effluent nor receiving water limitations are exceeded; and
- iii. The Discharger notifies the Colorado River Basin Water Board ten (10) days in advance.

26. In the event of an unanticipated by-pass, the Discharger shall immediately report the incident to the Colorado River Basin Water Board. During non-business hours, the Discharger shall leave a message on the Colorado River Basin Water Board office voice recorder. A written report shall be provided within five business days the Discharger is aware of the incident. The written report shall include a description of the by-pass, any noncompliance, the cause, period of noncompliance, anticipated time to achieve full compliance, and steps taken or planned, to reduce, eliminate, and prevent recurrence of the noncompliance.
27. Federal regulations for storm water discharges require specific categories of facilities which discharge storm water associated with industrial activity (storm water) to obtain National Pollutant Discharge Elimination System (NPDES) permits and to implement Best Conventional Pollutant Technology (BCT) and Best Available Technology Economically Achievable (BAT) to reduce or eliminate industrial storm water pollution.
28. All storm water discharges from this facility must comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies, regarding discharges of storm water to storm water drain systems or other courses under their jurisdiction.
29. Storm water discharges from the facility shall not cause or threaten to cause pollution or contamination.
30. Storm water discharges from the facility shall not contain hazardous substances equal to or in excess of a reportable quantity listed in 40 CFR Part 117 and/or 40 CFR Part 302.
31. The Discharger is the responsible party for the waste discharge requirements and the monitoring and reporting program for the facility. The Discharger shall comply with all conditions of these waste discharge requirements. Violations may result in enforcement actions, including Colorado River Basin Water Board Orders or court orders, requiring corrective action or imposing civil monetary liability, or in modification or revocation of these waste discharge requirements by the Colorado River Basin Water Board.
32. This Board Order does not authorize violation of any federal, state, or local laws or regulations.
33. This Board Order does not convey property rights of any sort, or exclusive privileges, nor does it authorize injury to private property or invasion of personal rights, or infringement of federal, state, or local laws or regulations.
34. This Board Order may be modified, rescinded, or reissued, for cause. The filing of a

request by the Discharger for a Board Order modification, rescission or reissuance, or notification of planned changes or anticipated noncompliance, does not stay any Board Order condition. Causes for modification include a change in land application plans, or sludge use or disposal practices, and adoption of new regulations by the State or Colorado River Basin Water Board (including revisions to the Basin Plan), or Federal government.

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 June 30, 2016.



JOSE L. ANGEL P.E.
Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

MONITORING AND REPORTING PROGRAM R7-2016-0026
FOR
BIG BEAR AREA REGIONAL WASTEWATER AGENCY, OWNER/OPERATOR
EXPORT OF RECYCLED WATER TO LUCERNE VALLEY
Lucerne Valley – San Bernardino County

Location of Discharge:
Section 14, T4N, R1E, SBB&M

A. Monitoring

1. This Monitoring and Reporting Program (MRP) describes requirements for monitoring a wastewater system and groundwater quality (when needed). This MRP is issued pursuant to California Water Code (CWC) section 13267. The Discharger shall not implement any changes to this MRP unless and until a revised MRP is issued by the Executive Officer.
2. Water Code section 13267 states, in part:

“In conducting an investigation specified in subdivision (a), the Colorado River Basin Water Board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the Colorado River Basin Water Board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the Colorado River Basin Water Board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.”
3. Water Code section 13268 states, in part:

“(a) (1) Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of section 13267, or failing or refusing to furnish a statement of compliance as required by subdivision (b) of section 13399.2, or falsifying any information provided therein, is guilty of a misdemeanor, and may be liable civilly in accordance with subdivision (b). (b) (1) Civil liability may be administratively imposed by a Colorado River Basin Water Board in accordance with Article 2.5 (commencing with section 13323) of Chapter 5 for a violation of subdivision (a) in an amount which shall not exceed one thousand dollars (\$1,000) for each day in which the violation occurs.”
4. BBARWA owns and operates the wastewater system that is subject to Board Order R7-2016-0026. The reports are necessary to ensure that the Discharger complies with the Order. Pursuant to Water Code section 13267, the Discharger shall implement the MRP and shall submit the monitoring reports described herein.
5. All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. The time, date, and location of each grab sample shall be recorded

- on the sample chain of custody form. If composite samples are collected, the basis for sampling (time or flow weighted) shall be approved by Colorado River Basin Water Board staff.
6. Field test instruments (such as those used to test pH, dissolved oxygen, and electrical conductivity) may be used provided that:
 - a. The user is trained in proper use and maintenance of the instruments;
 - b. The instruments are field calibrated prior to monitoring events at the frequency recommended by the manufacturer;
 - c. Instruments are serviced and/or calibrated by the manufacturer at the recommended frequency; and
 - d. Field calibration reports are submitted as described in the "Reporting" section of this MRP.
 7. The collection, preservation and holding times of all samples shall be in accordance with U. S. Environmental Protection Agency (USEPA) approved procedures. Unless otherwise approved by the Colorado River Basin Water Board's Executive Officer, all analyses shall be conducted by a laboratory certified by the State Water Resources Control Board, Division of Drinking Water. All analyses shall be conducted in accordance with the latest edition of the "Guidelines Establishing Test Procedures for Analysis of Pollutants" (40 CFR Part 136), promulgated by the USEPA.
 8. All monitoring instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. In the event that continuous monitoring equipment is out of service for period greater than 24-hours, the Discharger shall obtain representative grab samples each day the equipment is out of service. The Discharger shall correct the cause(s) of failure of the continuous monitoring equipment as soon as practicable. The Discharger shall report the period(s) during which the equipment was out of service and if the problem has not been corrected, shall identify the steps which the Discharger is taking or proposes to take to bring the equipment back into service and the schedule for these actions.
 9. The Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Board Order, and records of all data used to complete the application for this Board Order, for a period of at least five (5) years from the date of the sample, measurement, report or application. This period may be extended by request of the Colorado River Basin Water Board's Executive Officer at any time. Records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurement(s);
 - b. The individual(s) who performed the sampling or measurement(s);
 - c. The date(s) analyses were performed;
 - d. The individual(s) who performed the analyses;
 - e. The analytical techniques or method used; and
 - f. The results of such analyses.
 10. Samples shall be collected at the location specified in the WDRs. If no location is

specified, sampling shall be conducted at the most representative sampling point available.

11. Given the monitoring frequency prescribed by MRP R7-2016-0026, if only one sample is available for a given reporting period, compliance with monthly average, or weekly average Discharge Specifications, will be determined from that sample.
12. If the facility is not in operation, or there is no discharge during a required reporting period, the Discharger shall forward a letter to the Colorado River Basin Water Board indicating that there has been no activity during the required reporting period.

Effluent Monitoring

13. Representative samples of the undisinfected secondary recycled water shall be taken at the WWTP. The samples shall be analyzed for the following constituents:

| <u>Constituent</u> | <u>Units</u> | <u>Type of Sample</u> | <u>Monitoring Frequency</u> | <u>Reporting Frequency</u> |
|-----------------------------------|-------------------|-----------------------|-----------------------------|----------------------------|
| Irrigation Flow | MGD | Flow Meter Reading | Daily | Monthly |
| 20°C BOD ₅ | mg/L | 24 Hr. Composite | 2x/Month | Monthly |
| Total Suspended Solids | mg/L | 24 Hr. Composite | 2x/Month | Monthly |
| pH | s.u. ¹ | Grab | Daily | Monthly |
| Dissolved Oxygen ² | mg/L | Grab | Monthly | Monthly |
| Total Dissolved Solids | mg/L | 24 Hr. Composite | Monthly | Monthly |
| Sulfate (SO ₄) | mg/L | 24 Hr. Composite | Monthly | Monthly |
| Chloride | mg/L | 24 Hr. Composite | 2x/Month | Monthly |
| Fluoride (F) | mg/L | 24 Hr. Composite | Monthly | Monthly |
| Nitrate (NO ₃ -N) as N | mg/L | 24 Hr. Composite | Monthly | Monthly |
| Total Nitrogen | mg/L | 24 Hr. Composite | Monthly | Monthly |
| VOCs ³ | µg/L ⁴ | 24 Hr. Composite | Annually | Annually |

Overflow Pond Monitoring

14. During months when the overflow evaporation/percolation ponds are not used, the Discharger shall report that there has been no activity. During months when the overflow evaporation percolation ponds are in use, the ponds shall be monitored according to the following schedule:

¹ standard pH units

² Dissolved Oxygen shall be monitored at the upper one foot layer of the storage or percolation ponds.

³ Analysis of Volatile Organic Compounds is to be accomplished using the USEPA test methods 601, 602 or 624

⁴ micrograms per liter

| <u>Constituent</u> | <u>Units</u> | <u>Type of Sample</u> | <u>Monitoring Frequency</u> | <u>Reporting Frequency</u> |
|------------------------|--------------|-----------------------|-----------------------------|----------------------------|
| Flow Quantity | MGD | Flow Measurement | Daily | Monthly |
| Dissolved Oxygen | mg/L | Grab | Twice Monthly | Monthly |
| pH | s.u. | Grab | Twice Monthly | Monthly |
| Total Dissolved Solids | mg/L | Grab | Twice Monthly | Monthly |
| Freeboard | ft | Measurement | Twice Monthly | Monthly |

Groundwater Monitoring

15. The groundwater monitoring wells shall be monitored according to the following schedule:

| <u>Constituent</u> | <u>Units</u> | <u>Type of Sample</u> | <u>Monitoring⁵ Frequency</u> | <u>Reporting Frequency</u> |
|-----------------------------------|-----------------------|-----------------------|---|----------------------------|
| Depth to Groundwater | ft (msl) ⁶ | Measurement | Monthly | Monthly |
| Groundwater Gradient ⁷ | NA | Direction | Monthly | Monthly |
| Total Nitrogen | mg/L | Grab | Monthly | Monthly |
| Nitrate as N | mg/L | Grab | Monthly | Monthly |
| Chloride | mg/L | Grab | Monthly | Monthly |
| Fluoride | mg/L | Grab | Monthly | Monthly |
| Sulfate | mg/L | Grab | Monthly | Monthly |
| Total Dissolved Solids | mg/L | Grab | Monthly | Monthly |
| Boron | mg/L | Grab | Monthly | Monthly |
| VOCs | µg/L | Grab | Annually | Annually |

Domestic Water Supply Monitoring

16. The domestic water supply shall be a flow weighted composite sample monitored at the water supply production wells in Big Bear Valley and include notations of which wells are non-operating for a reporting period and in accordance to the following schedule:

| <u>Constituent</u> | <u>Units</u> | <u>Type of Sample</u> | <u>Monitoring Frequency</u> | <u>Reporting Frequency</u> |
|------------------------|--------------|-----------------------|-----------------------------|----------------------------|
| Total Dissolved Solids | mg/L | Grab | Annually | Annually |

⁵ Groundwater monitoring shall be performed monthly for the first 12 months and quarterly thereafter.

⁶ Above mean sea level.

⁷ Groundwater flow direction.

B. Reporting

1. The Discharger shall inspect and document any operation/maintenance problems by inspecting each unit process. Operation and Maintenance reports shall be submitted to the Colorado River Basin Water Board Office annually, containing documentation showing the calibration of flow meters and equipment as performed in a timely manner, modifications and updates to the Operation and Maintenance Manual, and modifications and updates to the Agency's waste water ordinance or rules and regulations.
2. The Discharger shall annually report a trend monitoring analysis for total nitrogen and nitrates in the groundwater in the vicinity of the recycled water use site. The analysis shall be reported with the Discharger's annual Self-Monitoring Report (SMR).
3. The Discharger shall provide an annual nitrogen balance for the recycled water use site which includes nitrogen loading by application of recycled water and the use of fertilizers for farming. Nitrogen balance shall consider nitrogen uptake by crops grown and provide documentation of crop-specific nitrogen uptake rates. The analysis shall be reported with the Discharger's annual SMR.
4. The Discharger shall provide an operator certification status update including number of staff and grade certification annually.
5. SMRs shall be certified under penalty of perjury to be true and correct, and shall contain the required information at the frequency designated in this MRP.
6. Each Report must contain an affirmation in writing that:

"All analyses were conducted at a laboratory certified for such analyses by and in accordance with current USEPA procedures or as specified in this Monitoring and Reporting Program."

7. Each Report shall contain the following completed declaration:

"I certify under the penalty of law that this document, including all attachments and supplemental information, was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment.

Executed on the _____ day of _____ at _____

_____(Signature)

_____(Title)"

8. The SMRs, and other information requested by the Colorado River Basin Water Board, shall be signed by a principal executive officer or ranking elected official.
9. A duly authorized representative of the Discharger may sign the documents if:
 - a. The authorization is made in writing by the person described above;

- b. The authorization specified an individual or person having responsibility for the overall operation of the regulated disposal system; and
 - c. The written authorization is submitted to the Colorado River Basin Water Board's Executive Officer.
10. The Discharger shall attach a cover letter to the SMRs. The information contained in the cover letter shall clearly identify violations of the WDRs; discuss corrective actions taken or planned and the proposed time schedule of corrective actions. Identified violations should include a description of the requirement that was violated and a description of the violation.
11. Daily, weekly, and monthly monitoring shall be included in the monthly monitoring report. Monthly monitoring reports shall be submitted to the Colorado River Basin Water Board by the 15th day of the following month. Quarterly monitoring reports shall be submitted by January 15th, April 15th, July 15th and October 15th. Annual monitoring reports shall be submitted by January 31st of the following year.
12. The Discharger shall comply with the Electronic Submittal of Information (ESI) requirements by submitting all correspondence and reports required under Monitoring and Reporting Program (MRP) R7-2016-0026, and future revisions thereto, including groundwater monitoring data and discharge location data (latitude and longitude), correspondence, and pdf monitoring reports to the State Water Resources Control Board GeoTracker database. Documents that are 2.0 MB or larger should be broken down into smaller electronic files, labelled properly and uploaded into GeoTracker.

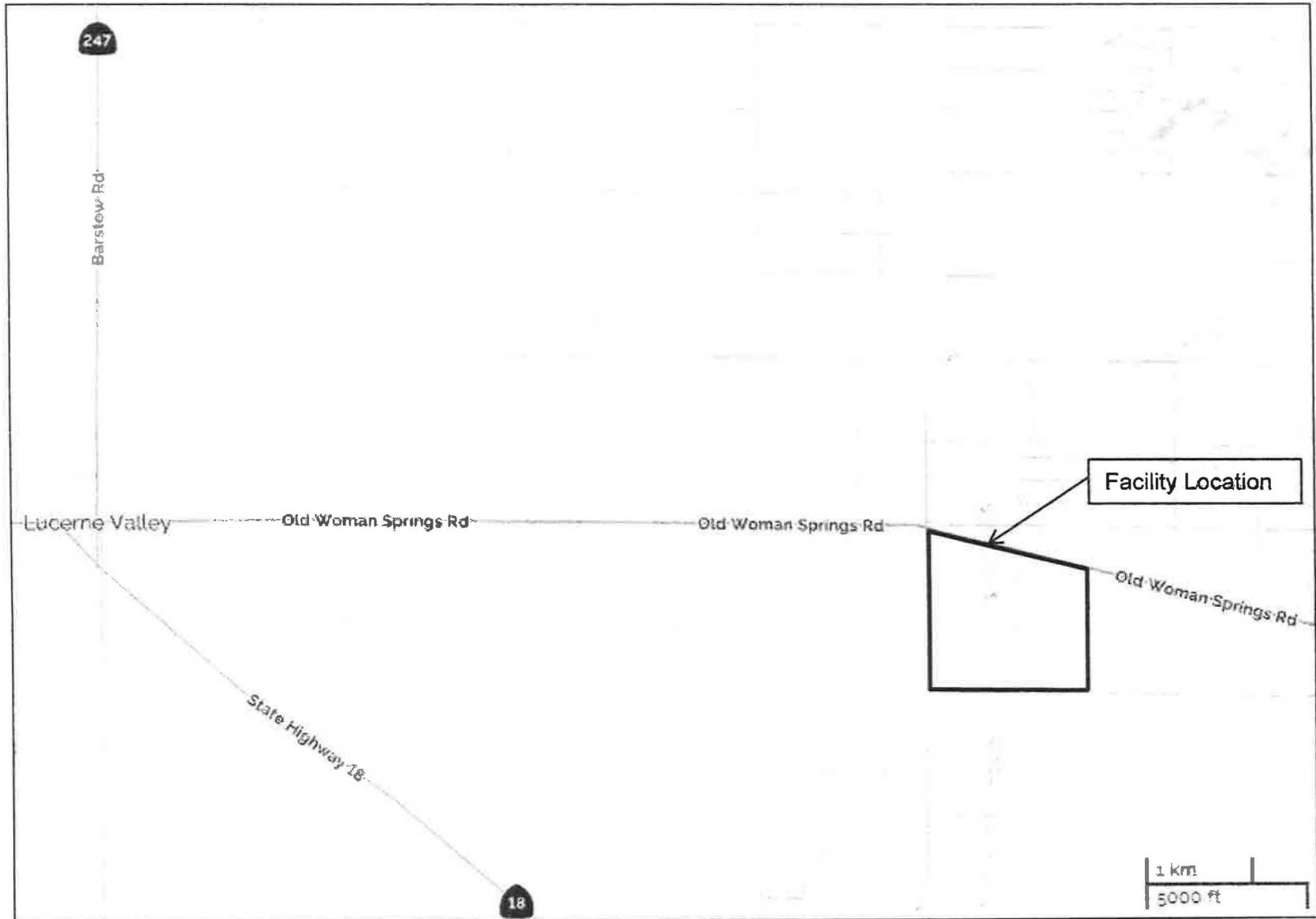


JOSE L. ANGEL P.E.
Executive Officer



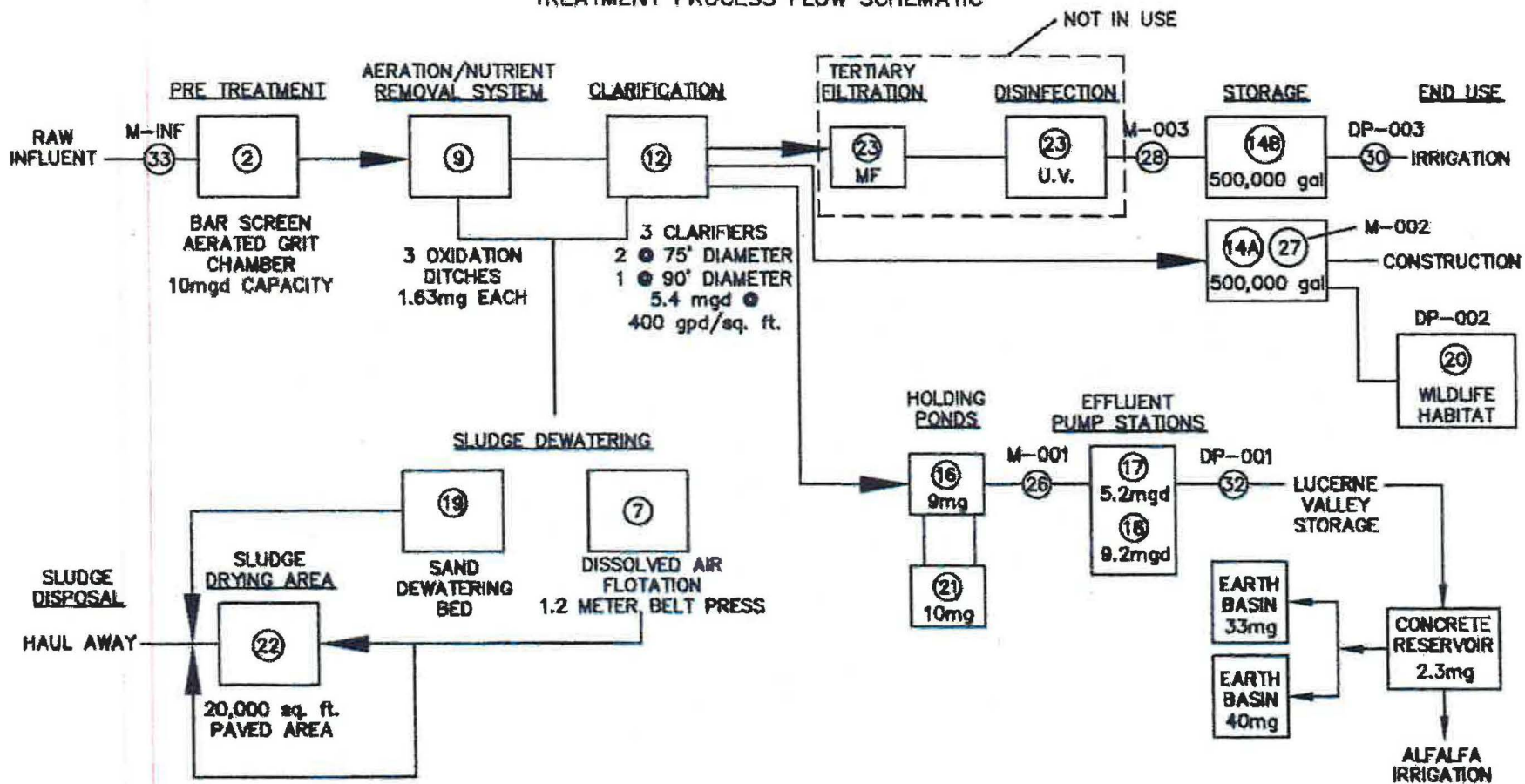
Date

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION



BIG BEAR AREA REGIONAL WASTEWATER AGENCY, OWNER/OPERATOR
EXPORT OF RECYCLED WATER TO LUCERNE VALLEY
Lucerne Valley – San Bernardino County
Section 14, T4N, R1E, SBB&M

TREATMENT PROCESS FLOW SCHEMATIC



BIG BEAR AREA REGIONAL WASTEWATER AGENCY, OWNER/OPERATOR
 EXPORT OF RECYCLED WATER TO LUCERNE VALLEY
 Lucerne Valley – San Bernardino County



BIG BEAR AREA REGIONAL WASTEWATER AGENCY, OWNER/OPERATOR
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