31 August 2018

Michael T. Reynolds, Superintendent
United States Department of the Interior
National Park Service
Yosemite National Park
P.O. Box 577
Yosemite, CA 95389

CERTIFIED MAIL
7016 1370 0000 0296 4839

NOTICE OF APPLICABILITY (NOA), STATE WATER RESOURCES CONTROL BOARD ORDER WQ 2014-0153-DWQ, GENERAL WASTE DISCHARGE REQUIREMENTS FOR SMALL DOMESTIC WASTEWATER TREATMENT SYSTEMS, UNITED STATES DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE, WAWONA WASTEWATER TREATMENT FACILITY, MARIPOSA COUNTY

On 5 March 2018, the United States Department of the Interior, National Park Service (NPS or Discharger), submitted a Report of Waste Discharge (RWD) for its Wawona wastewater treatment facility (Facility), about 14 miles north of Oakhurst along Highway 41 in Yosemite National Park in Mariposa County. Based on the information provided, the system treats and disposes of less than 100,000 gallons of wastewater per day, and is therefore eligible for coverage under the general and specific conditions of State Water Resources Control Board (State Water Board) Water Quality Order 2014-0153-DWQ *General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems (*General Order). This letter serves as formal notice that the General Order is applicable to your system and the wastewater discharge described below. You are hereby assigned General Order **2014-0153-DWQ-R5289** for your system.

You should familiarize yourself with the entire General Order and its attachments enclosed with this letter, which describe mandatory discharge and monitoring requirements. Sampling, monitoring, and reporting requirements applicable to your treatment and disposal methods must be completed in accordance with the appropriate treatment system sections of the General Order and the attached *Monitoring and Reporting Program* (MRP) No. 2014-0153-DWQ-R5289 This MRP was developed after consideration of your waste characterization and site conditions described in the attached memorandum.

DISCHARGE DESCRIPTION

The NPS owns and operates the Facility in Section 34, T4S, R21E and Section 3, T5S, T 21E MDB&M in Mariposa County. The Facility treats domestic wastewater from the community of Wawona which includes public and private visitor service facilities, park service housing facilities, the Wawona Hotel complex, the Wawona Seventh-Day Adventist Camp, and nearby picnic areas. The RWD indicates that average dry weather flow (ADWF) for the past 5 years ranges from 0.013 to 0.076 mgd, with a peak daily flow of 0.120 mgd. The wastewater treatment facility consist of two lift stations, headworks (consisting of a Parshall flume and grinder), influent equalization tank with aeration, extended aeration activated sludge treatment process (aerations tanks, clarifiers, and return and waste activated sludge pumping), coagulant and

polymer injection, tertiary clarification, sand filtration, disinfection with sodium hypochlorite, two above ground storage tanks (with a total capacity of 4.5 million gallons), aerobic digesters, and sludge beds.

The RWD indicates that digested sludge is hauled to the El Portal wastewater treatment facility for processing rather than drying in the Wawona sludge drying beds and that biosolids from the El Portal are hauled for land application in the Central Valley by contract.

FACILITY SPECIFIC REQUIREMENTS AND EFFLUENT LIMITATIONS

The Discharger will maintain exclusive control over the discharge and shall comply with the terms and conditions of this NOA, General Order 2014-0153-DWQ, with all attachments, and MPR No. 2014-0153-DWQ-R5289.

In accordance with Section B.1 of the General Order, treated wastewater discharged to the Facility **shall not exceed 100,000 gpd as a monthly average**. Compliance with this flow limitation shall be measures at the influent to the wastewater treatment facility.

As discussed in the attached memorandum, the Discharger shall comply with the following effluent limitation for total nitrogen:

Effluent Limitation for Wastewater Treatment System				
Constituent	**Units**	**Monthly Average**	**Daily Maximum**	**Annual Average**
Total Nitrogen (% Reduction)	%	--	--	50[1]

1. The value represents the minimum percent reduction compared to the untreated wastewater value. Reduction shall be calculated on an annual basis. In no case shall the reduction result in an effluent limit lower than 10 mg/L total nitrogen.

The General Order states in Section B.1.l that the Discharger shall comply with the setbacks described in Table 3. This table summarizes different setback requirements for wastewater system equipment, activities, land application areas, and storage and/or treatment ponds from sensitive receptors and property lines where applicable. The Discharger shall comply with the applicable setback requirements, as summarized in the following table:

Site Specific Applicable Setback Requirements				
Equipment or Activity	**Domestic Well**	**Ephemeral Stream Drainage**	**Flowing Stream**	**Property Line**
Aerobic Treatment Unit, Treatment System, or Collection System [a]	150 ft.[b]	50 ft.	50 ft.[c]	5 ft.[c]
LAA (disinfected tertiary recycled water)[d]	50 ft.[e]	10 ft.[f]	25 ft.[c]	25 ft.

a. Septic Tank, Treatment System, or Collection System addresses equipment located below ground or that impedes leak detection by routine visual inspection.

b. Setback established by Onsite Wastewater Treatment System Policy, section 7.5.6.

c. Setback established by California Plumbing Code, Table K-1.

d. Disinfected tertiary recycled water is defined in California Code of Regulations, title 22, section 60301.230.

e. Setback established by California Code of Regulations, title 22, section 60310(a).

f. See the attached technical memorandum for discussion about reducing the setback distance from 50 feet to 10 feet.

The Discharger shall comply with the activated sludge system requirements specified in Section B.4 of the General Order. The General Order states in Section B.4.a that the Discharger shall submit a Sludge Management Plan; however, the Discharger submitted a Biosolids Use and Disposal Plan on 30 July 2015 and provided clarification in a 14 January 2016 e-mail and 26 February 2016 letter. Section B.4.a also requires the Discharger to notify the Executive Officer of any changes in an approved Sludge Management Plan at least 90 days in advance of the proposed change.

The General Order includes recycled water system requirements in Section B.7. The discharge of treated wastewater to the Wawona Golf Course shall comply with the requirements specified in Section B.7 of the General Order. In addition, the Discharger shall comply with the following recycled water specifications:

1. Use of recycled water shall comply with the terms and conditions of the most current Title 22 regulations.

2. Effluent biochemical oxygen demand shall not exceed 10 mg/L as a monthly average or 20 mg/L as a daily maximum.

3. Effluent total suspended solids shall not exceed 10 mg/L as a monthly average or 20 mg/L as a daily maximum.

4. Effluent total coliform shall not exceed:

    a. 2.2 most probable number (MPN) per 100 mL, as a 7-day median;
    b. 23 MPN/100 mL, more than once in any 30-day period; and
    c. 240 MPN/100 mL, at any time.

5. The turbidity of filtered wastewater shall not exceed the following requirements:

    a. When coagulation is used, the Discharger shall operate the treatment system to ensure that the turbidity measurement at a location representative of effluent from the filtration system shall not exceed:
        i. An average of 2 NTU within a 24-hour period,
        ii. 5 NTU more than 5 percent of the time within a 24-hour period, and
        iii. 10 NTU at any time.

    b. When coagulation is not used, the Discharge shall operate the treatment system to ensure:
        i. The turbidity of the influent to the filtration unit shall not exceed 5 NTU for more than 15 minutes and never exceed 10 NTU; and
        ii. The effluent turbidity measured at a location representative of effluent from the filtration system shall not exceed 2 NTU at any time.

6. The filtration rate shall not exceed 5 gallons per minute per square foot of surface area as specified in Title 22, CCR, section 60301.320(a)(1).

7. Use of recycled water shall be limited to the Wawona Golf Course.

8. Spray, mist, or runoff shall not enter dwellings, designated outdoor eating areas, or food handling facilities.

9. Drinking water fountains shall be protected against contact with recycled water spray, mist, or runoff.

10. Except as allowed under Section 7604 of Title 17, CCR, no physical connection shall be made or allowed to exist between any recycled water system and any separate system conveying potable water.

11. The portions of the recycled water piping system that are in areas subject to access by the general public shall not include any hose bibs. Only quick couplers that differ from those used on the potable water system shall be used on the portions of the recycled water piping system in areas subject to public access.

12. Irrigation of the reclamation area shall occur between 9:00 pm and 6:00 am, as weather permits. Hand watering of the golf course, with a hose, using recycled water in conjunction with typical irrigation and irrigation system testing activities may be permitted during the day, provided that applications are supervised by appropriate golf course personnel and all golfers, pedestrians, and other members of the general public are precluded from entering irrigated areas until all applied recycled water has infiltrated the soil. Hand watering does not include watering of golf course areas by manually operating the irrigation system. Watering using such practices is prohibited.

13. Workers shall be informed of the potential health hazards involved with contact or ingestion of recycled water, and shall be educated regarding proper hygienic procedures to ensure personal and public safety.

14. Application of recycled water to the reclamation area shall not exceed what is reasonably necessary for the grass, soil, climate, and management system (i.e., generally accepted agronomic rates).

15. Recycled water controllers, valves, etc. shall be affixed with recycled water warning signs, and the quick couplers and sprinkler heads shall be of a type, or secured in a manner that permits operation by authorized personnel only.

Provision E.1 of the General Order requires dischargers enrolled under the General Order to prepare and implement the following reports within **90 days** of the issuance of this NOA **(By 30 November 2018)**:

- Spill Prevention and Emergency Response Plan (Provision E.1.a)
- Sampling Analysis Plan (Provision E.1.b)
- Sludge Management Plan (Provision E.1.c)

Within **90 days** of issuance of this NOA, submit to the Central Valley Water Board either:

- Certification that the 30 July 2015 Biosolids Use and Disposal Plan is accurate and reflects current biosolids handling, or

- a Sludge Management Plan in compliance with Provision E.1.c of the General Order.

As stated in Section E.2.w., in the event any change in control or ownership of the facility or wastewater disposal areas, the Discharger must notify the succeeding owner or operator of the existence of this General Order by letter, a copy of which shall be immediately forwarded to the Central Valley Water Board Executive Officer.

Failure to comply with the requirements in this NOA, General Order 2014-0153-DWQ, with all attachments, and MRP No. 2014-0153-DWQ-R5289 could result in an enforcement action as authorized by provisions of the California Water Code. Discharge of wastes other than those described in this NOA is prohibited. If the method of waste disposal changes from that described in this NOA, you must submit a new Report of Waste Discharge describing the new operation. If flow to the Facility substantially increases and approaches 100,000 gpd, you must contact Central Valley Water Board staff to determine the requirements for submittal of a Report of Waste Discharge for individual Waste Discharge Requirements.

The required annual fee specified in the annual billing from the State Water Board shall be paid until this NOA is officially terminated. You must notify this office in writing if the discharge regulated by the General Order ceases, so that we may terminate coverage and avoid unnecessary billing.

The Central Valley Water Board has gone to a Paperless Office System. All regulatory documents, submissions, materials, data, monitoring reports, and correspondence should be converted to a searchable Portable Document Format (PDF) and submitted electronically. Documents that are less than 50 MB should be emailed to: centralvalleyfresno@waterboards.ca.gov. Documents that are 50 MB or larger should be transferred to a disk and mailed to the Central Valley Water Board office at 1685 E Street, Fresno, CA 93706. To ensure that your submittals are routed to the appropriate staff, the following information block should be included in any email used to transmit documents to this office: Program: Non-15, WDID: 5C220701004, Facility Name: USDI National Park Service Yosemite Wawona WWTF, Order: 2014-0153-DWQ-R5289.

In order to conserve paper and reduce mailing costs, a paper copy of the General Order has been sent only to the Discharger. Others are advised that the General Order is available on the State Water Board's web site at:

http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2014/wqo2014_0153_dwq.pdf

If you have any questions regarding this matter, please contact Daniel Benas by phone at (559) 445-5500 or email at Daniel.Benas@waterboards.ca.gov.

for Patrick Pulupa
Executive Officer

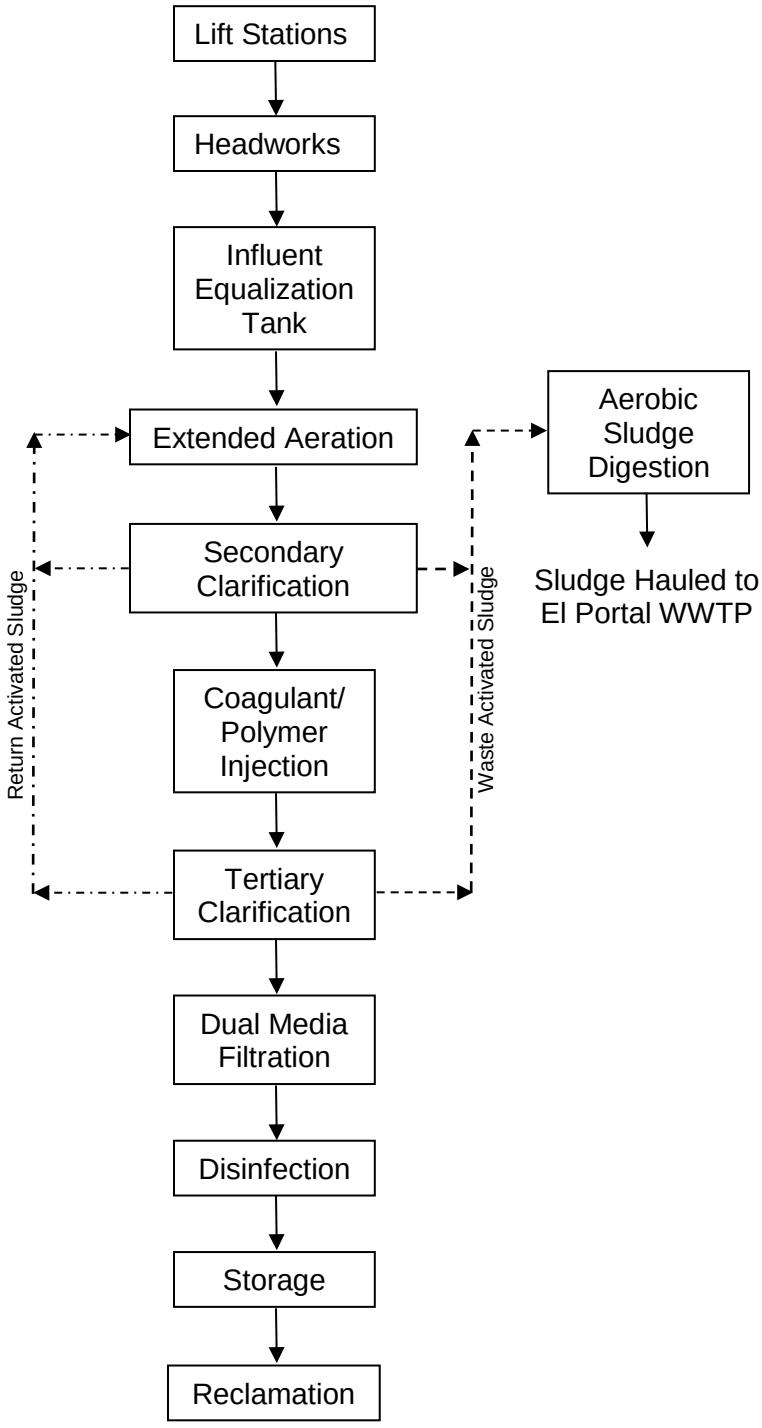
Attachments: Attachment A – Site Map
Attachment B – Process Flow Diagram
Monitoring and Reporting Program No. 2014-0153-DWQ-R5289
Review Memorandum of USDI NPS Yosemite Wawona Wastewater Treatment Facility Report of Waste Discharge
State Water Resources Control Board Order WQ 2014-0153-DWQ (Discharger Only)

cc: Tim O'Brien, State Water Resources Control Board (via email)
Mariposa County Environmental Health, Mariposa
Kassy Chauhan, Division of Drinking Water, Fresno (via email)
Jim Allen, USDI NPS Yosemite (via email)

ATTACHMENT A – SITE MAP
USDI NPS Yosemite
Wawona Wastewater Treatment Facility

Drawing Reference: Google Earth Map Data: © 2018	**Attachment A – Site Map** USDI NPS Yosemite Wawona Wastewater Plant Mariposa County	N W E S 0 1000 2000 Approximate distance in feet

ATTACHMENT B – PROCESS FLOW DIAGRAM
USDI NPS Yosemite
Wawona Wastewater Treatment Facility



Drawing Reference:
Report of Waste Discharge
5 March 2018

PROCESS FLOW DIAGRAM
USDI NPS YOSEMITE
WAWONA WASTEWATER TREATMENT FACILITY
MARIPOSA COUNTY

TO: Scott J. Hatton
Supervising Engineer
RCE 67889

FROM: Alexander S. Mushegan
Senior Engineer
RCE 84204

Daniel Benas
WRC Engineer

DATE: 31 August 2018

SUBJECT: **APPLICABILITY OF COVERAGE UNDER STATE WATER RESOURCES CONTROL BOARD ORDER WQ 2014-0153-DWQ, GENERAL WASTE DISCHARGE REQUIREMENTS FOR SMALL DOMESTIC WASTEWATER TREATMENT SYSTEMS, UNITED STATES DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE, WAWONA WASTEWATER TREATMENT FACILITY, MARIPOSA COUNTY**

On 5 March 2018, Central Valley Water Board staff (staff) received a Report of Waste Discharge (RWD) for the United States Department of the Interior, National Park Service (NPS or Discharger), Wawona Wastewater Treatment Facility (Facility). The Facility is located about 14 miles north of Oakhurst along Highway 41 in Yosemite National Park in Mariposa County. The RWD includes a Form 200 and a technical report prepared by Provost & Pritchard Consulting Group and was signed and stamped by Michael G. Taylor (RCE 39,961). A 23 July 2018 NPS letter requested that the Facility be enrolled under State Water Resources Control Board Order WQ 2014-0153-DWQ, *General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems* (General Order). This memorandum provides a summary of Central Valley Water Board's review of the RWD to determine the applicability of this discharge to be covered under the General Order.

BACKGROUND INFORMATION

The Facility is currently regulated by WDRs Order R5-2013-0092 (NPDES No. CA0081795), which specifies an influent flow limitation of 0.105 million gallons per day (mgd). Order R5-20144-0092 authorizes the Facility to discharge to the South Fork of the Merced River and to land on the Wawona Golf Course. In a 1 February 2018 letter, the Discharger requested that the NPDES permit be rescinded upon expiration of the NPDES permit (1 September 2018).

In a 19 April 2018 telephone conversation, Central Valley Water Board staff spoke with Mr. Jim Allen concerning the RWD, the outstanding items needed to complete the RWD, and a strategy to permit the facility under the General Order until an individual order can be written for the proposed modifications to the treatment system and disposal area.

In a 26 June 2018 NPS letter to Central Valley Water Board staff, the NPS stated it would prepare a joint NEPA and CEQA document for the Wawona wastewater treatment system project. The letter states that a NEPA-compliant environmental assessment for the project is being prepared in compliance with 14 CCR section 15221 to fulfill CEQA requirements without producing a separate CEQA document. The letter states that the Environmental Assessment will undergo a 30-day public review period in October/November 2018.

DESCRIPTION OF DISCHARGE

The Facility treats domestic wastewater from the community of Wawona, which includes public and private visitor service facilities, park service housing facilities, the Wawona Hotel complex, the Wawona Seventh-Day Adventist Camp, and nearby picnic areas. The wastewater treatment system and disposal system currently consists of the following:

- Two primary lift stations
- Headworks consisting of Parshall flume and grinder equipment
- Influent equalization tank
- Extended aeration activated sludge treatment process, including:
    - Aeration tanks
    - Secondary clarifiers,
    - Return and waste activated sludge pumping facilities
- Coagulant and polymer injection
- Final tertiary clarification
- Dual Media Sand Filtration
- Disinfection (sodium hypochlorite)
- Two effluent storage tanks (total storage capacity of 4.5 million gallons)
- Aerobic sludge digestion
- Sludge beds are available, but currently sludge is hauled to the El Portal WWTF for processing.
- Wawona Golf Course (about 25 acres)

From self-monitoring reports, the average daily influent flow rates for 2014 through 2017 ranged from 0.032 to 0.046 mgd. See Table 1 below:

Table 1 Influent Flow 2014-2017

Year	Flow Rate	Units
2014	0.032	mgd
2015	0.045	mgd
2016	0.039	mgd
2017	0.046	mgd

The Facility's discharge averages under 100,000 gallons per day and is therefore eligible for coverage under the General Order. Because the flow averages over 20,000 gallons per day a nitrogen evaluation must be conducted as described in Attachment 1 of the General Order (see Nitrogen Limit Evaluation section below).

Table 2 below shows a summary of data representing disinfected tertiary-treated effluent samples taken between 1 January 2014 and 30 April 2018. The data shows the Facility achieves high removal rates of biochemical oxygen demand (BOD) and total suspended solids (TSS). With the proposed changes to the facility (see below), the RWD states additional nutrient removal will occur.

Table 2 Effluent Quality Data

	Average	Max	Min	Units
Total Nitrogen (as N)	35.5	49	10	mg/L
BOD	4.5	12.6	1.6	mg/L
TSS[1]	1.3	8.1	1.25	mg/L
BOD % Removal	98.2	99.3	97.0	%
TSS % Removal	99.9	100	99.2	%
Total Phosphorus	0.2	0.5	0.02	mg/L
pH	7.3	8.5	6.6	SU
Electrical Conductivity	783	1,267	309	umhos/cm

1. Some TSS results were reported as non-detect so half the method detection limit was used to calculate average, maximum, and minimum numbers.

The Discharger has demonstrated that the Facility has the capability of meeting its current monthly average and daily maximum recycled water specifications for both BOD and TSS of 10 mg/L and 20 mg/L, respectively. Staff recommends that these specifications be carried over in the NOA.

Existing Reclamation System

Following treatment, disinfected tertiary-treated effluent is stored in two above ground tanks near the wastewater treatment plant (2 x 2.25 million-gallon capacity). Stored effluent is then used for irrigation of the Wawona Golf Course (hereafter reclamation area). The golf course it typically operated until the middle of October. Irrigation is continued during the winter if conditions allow (i.e., lack of snow or precipitation events). When irrigation demand exceeds effluent flow, raw water from the Merced River is blended with effluent in the storage tanks and applied to the golf course.

The RWD does not address the setback distances for the irrigation of the golf course with disinfected tertiary-treated wastewater. Table 3 of the General Order requires a setback distance of 50 feet from the high-water mark of an ephemeral stream. It appears that golf course irrigation may occur within 50 feet of the ephemeral stream, which runs along the north-eastern side and through the middle of the southern side of the golf course. According to the General Order, this setback distance is based on best professional judgement and not based on specific regulatory requirements (e.g., Title 22, plumbing code, etc.). General Order Section B.1.I.V. allows setbacks not based on a regulatory requirement be revised by the Regional Water Board Executive Officer on site-specific conditions. Staff is unaware of any reported nuisance conditions since issuance of WDRs Order R5-2013-0092 (NPDES No. CA0081795).

Staff recommends a setback distance of 10 feet with a prohibition of runoff from golf course irrigation from entering the ephemeral stream.

Proposed Changes

In the future the Discharger proposes changes in both the treatment facility and disposal area.

Proposed changes to the treatment facility include the following items:

- Baffle the existing activated sludge basins to provide two identical treatment trains, each with anoxic and aerobic zones for enhanced nutrient reduction,
- Addition of a rotary drum mechanical thickener for sludge processing prior to aerobic digestion,
- Expansion of the aerobic digester tanks to a capacity of 75,000 gallons for additional operational storage, and
- Addition of a screw press dewatering facility.

Proposed changes to the disposal area includes addition of a subsurface disposal system under Fairway 7. The proposed subsurface disposal system will consist of 70 to 75 subsurface disposal lines that will be 70 to 120 feet long and 10 feet apart and will be configured into four dispersal zones. The disposal lines will be installed into 5 to 6 feet deep trenches on top of 3 feet of aggregate. Each zone will be equipped with observation wells to review water levels upgradient and downgradient of the subsurface disposal area. Over the drain pipe, the drain rock trench will be wrapped in a synthetic textile and covered with topsoil and replacement turf.

NITROGEN LIMIT EVALUATION

As previously mentioned, the Facility flow rate exceeds 20,000 gallons per day which triggers the need for a nitrogen limit evaluation. A nitrogen limit evaluation was not submitted with the RWD. Order R5-2013-0092 requires monitoring for nitrite plus nitrate (as N) and total nitrite nitrogen (as N). Based on the following information (from the RWD and self-monitoring reports) and the guidelines in Attachment 1 of the General Order, an annual average nitrogen limit requiring 50% reduction is appropriate for the Facility:

1. Flow rate exceeds 20,000 gpd.
2. The reclamation area meets the definition of shallow groundwater and excessive percolation rate from Table 5 of the General Order
    a. Percolation rate of 5 minutes per inch (MPI), and
    b. Seasonally shallow groundwater (0.8 ft bgs).
3. The average effluent nitrate plus nitrate concentration for the period 1 January 2014 through 3 April 2018 was 35.5 mg/L. The current Order doesn't require influent nitrogen monitoring, so no reduction percentage can be calculated.
4. Additional nitrogen attenuation will occur from plant uptake on the golf course.

The percolation rate of 5 MPI and shallow seasonal groundwater may provide a problem for the planned subsurface disposal system. A new subsurface disposal system with a percolation rate of 5 MPI will require 5 to 20 feet from the base of the disposal surface to groundwater. The RWD states that the proposed disposal trench will be designed like a leachfield but will not require soil treatment since it will be disposing tertiary disinfected effluent from the wastewater treatment facility and that "it is anticipated that the disposal trench would be used when the depth to groundwater is below the design operational criteria."

The wastewater treatment facility provides a high level of BOD and TSS removal but has an effluent total nitrogen concentration averaging 35.5 mg/L. Utilizing subsurface disposal will negate any nitrogen removal provided by grass on the golf course and will likely require the Discharger to provide sufficient treatment to ensure effluent total nitrogen is below 10 mg/L. The Discharger should provide an addendum to the RWD describing how its proposed future discharge (i.e., modified treatment system for enhanced nutrient removal with disposal trenches) will be protective of groundwater quality.

RECYCLED WATER CONSIDERATIONS

A Title 22 Engineering Report was not submitted with the RWD; however, Order R5-2013-0092 requires that the Discharger provide treatment that meets Title 22 standards for disinfected tertiary-treated waste water and authorizes the reclamation of the Facility's effluent on the Wawona Golf Course. The NOA and MRP should incorporate provisions and appropriate monitoring and reporting to ensure compliance with Title 22 requirements.

As previously required by Order R5-2013-0092 and consistent with the requirements of Title 22, the NOA should include recycled water specifications for total coliform of 2.2 MPN/100 mL as a 7-day median; 23 MPN/100 mL, not to be exceeded more than once in a 30-day period; and 240 MPN/100 mL as an instantaneous maximum.

To ensure compliance with the recycled water specifications for total coliform and to serve as an indicator of the effectiveness of the treatment process, staff recommends carrying forward operational specifications contained in Order R5-2013-0092 for turbidity and filtration rate.

The NPS notified Central Valley Water Board on 26 June 2018 that Provost and Pritchard was awarded the contract to complete a Title 22 Engineering Report; however, no date was given on when the report would be submitted. Staff recommends issuing a 13267 Order requiring submittal of a Title 22 Engineering Report in a timely manner.

POTENTIAL THREAT TO WATER QUALITY

Groundwater monitoring isn't required by the current order nor was groundwater quality data submitted as part of the RWD. However, the RWD provides the results of a subsurface investigation in which piezometers equipped with data loggers were used to monitor groundwater elevation under the golf course. Borings were completed to various depths depending on depth to groundwater and refusal against gravels. Observed soils consisted primarily of sands and silts.

The RWD reports that higher topographic areas have greater soil thickness and depths to groundwater and that groundwater depth responds quickly to precipitation events (i.e., groundwater depth is highly responsive to the total rainfall, duration, and intensity of individual precipitation events).

The RWD states that groundwater depth for the period December 2016 through November 2017 was highly variable. Initial groundwater depths ranged from 2.1 feet below ground surface (bgs) to greater than 15 feet bgs, as the rainy season progressed groundwater rose to less than three feet bgs to above ground surface in various locations. It's worthwhile to note that the 2016/2017 winter was at or above record total rain and snow fall for the Wawona area.

MONITORING REQUIREMENTS

- Activated Sludge Monitoring;
- Disinfection System Monitoring;
- Land Application Area;
- Recreational Vehicle Discharge Monitoring; and
- Solids Disposal Monitoring.

CV-SALTS

The Central Valley Water Board adopted Basin Plan amendments incorporating new programs for addressing ongoing salt and nitrate accumulation in the Central Valley at its 31 May 2018 Board Meeting. These programs, once effective, could change how the Central Valley permits discharges of salt and nitrate.

RECOMMENDATION

Staff proposes to enroll the Wawona WWTF under the General Order, incorporating a flow limit of 0.1 million gallons per day; the proposed effluent limits/recycled water specifications for BOD, TSS, total nitrogen, turbidity, and total coliform; and the proposed monitoring to ensure compliance with Title 22 requirements for disinfected tertiary-treated wastewater. The Notice of Applicability enrolling the Facility under the General Order should only authorize the discharge of treated wastewater to the Wawona Golf Course since additional items need to be submitted prior to authorizing the discharge of treated wastewater to the proposed subsurface disposal area. Once the Discharger has satisfied CEQA, submitted a DDW approved Title 22 Engineering Report, and submitted a complete nitrogen evaluation, staff can begin updating the WDRs for the proposed upgraded Facility.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. 2014-0153-DWQ-R5289

FOR

UNITED STATES DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE
YOSEMITE NATIONAL PARK
WAWONA WASTEWATER TREATMENT FACILITY
MARIPOSA COUNTY

This Monitoring and Reporting Program (MRP) describes requirements for monitoring a wastewater treatment system. This MRP is issued pursuant to Water Code section 13267. The National Park Service (Discharger) shall not implement any changes to this MRP unless and until a revised MRP is issued by the Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) or the Executive Officer.

Water Code section 13267 states, in part:

> "In conducting an investigation specified in subdivision (a), the regional 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 under penalty of perjury, technical or monitoring program reports which the regional 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 regional 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."

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 regional 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."

The Discharger, owns and operates the Wawona wastewater treatment facility (Facility) that is subject to the Notice of Applicability (NOA) of Water Quality Order 2014-0153-DWQ-R5289. The reports are necessary to ensure that the Discharger complies

with the NOA and General Order. Pursuant to Water Code section 13267, the Discharger shall implement this MRP and shall submit the monitoring reports described herein.

All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. The name of the sampler, sample type (grab or composite), time, date, location, bottle type, and any preservative used for each sample shall be recorded on the sample chain of custody form. The chain of custody form must also contain all custody information including date, time, and to whom samples were relinquished. If composite samples are collected, the basis for sampling (time or flow weighted) shall be approved by Central Valley Water Board staff.

Field test instruments (such as those used to test pH, dissolved oxygen, and electrical conductivity) may be used provided that they are used by a State Water Resources Control Board, Environmental Laboratory Accreditation Program certified laboratory, or:

1. The user is trained in proper use and maintenance of the instruments;
2. The instruments are field calibrated prior to monitoring events at the frequency recommended by the manufacturer;
3. Instruments are serviced and/or calibrated by the manufacturer at the recommended frequency; and
4. Field calibration reports are maintained and available for at least three years.

If monitoring consistently shows no significant variation in magnitude of a constituent concentration or parameter after at least 12 months of monitoring, the Discharger may request this MRP be revised to reduce monitoring frequency. The proposal must include adequate technical justification for reduction in monitoring frequency.

ACTIVATED SLUDGE MONITORING

Influent Monitoring

Influent samples shall be taken from a location that provides representative samples of the Facility's influent wastewater quality, prior to any treatment or return flows. At a minimum, influent monitoring shall consist of the following:

Constituent	Units	Sample Type	Sample Frequency	Reporting Frequency
Flow	gpd	Meter	Continuous	Quarterly
Total Nitrogen	mg/L	Grab	Monthly	Quarterly

mg/L denotes milligrams per liter, gpd denotes gallons per day.

Effluent Monitoring

Samples of effluent shall be taken at an area that represents the effluent quality distributed to the Wawona Golf Course. At a minimum, effluent monitoring shall consist of the following:

Constituent	Units	Sample Type	Sample Frequency	Reporting Frequency
Flow Rate	gpd	Meter	Continuous	Quarterly
Biochemical Oxygen Demand	mg/L	Grab	Monthly	Quarterly
Total Suspended Solids	mg/L	Grab	Monthly	Quarterly
pH	SU	Grab	1/week	Quarterly
Electrical Conductivity	µmhos/cm	Grab	1/week	Quarterly
Total Nitrogen	mg/L	Grab	Monthly	Quarterly

gpd denotes gallons per day, mg/L denotes milligrams per liter, SU denotes standard units, µmhos/cm denotes micromhos per centimeter.

DISINFECTION SYSTEM MONITORING

Samples shall be collected from immediately downstream of the disinfection system. At a minimum, disinfection system monitoring shall consist of the following:

Constituent	Units	Sample Type	Sample Frequency	Reporting Frequency
Total Coliform Organisms	MPN/100 mL	Grab	1/day	Quarterly
Chlorine Residual	mg/L	Continuous	Continuous	Quarterly
Contact Time	mg-min/L	Calculate	1/day	Quarterly
Turbidity[1,2,3]	NTU	Meter	Continuous	Quarterly

MPN/100 mL denotes most probable number per 100 mL sample. NTU denotes nephelometric turbidity unit. mg/L denotes milligrams per liter. mg-min/L denotes concentration(mg) and the contact time (min/L).

1. When coagulation is used, the Discharger shall conduct turbidity monitoring at a location representative of the effluent from the filtration system prior to disinfection. When coagulation is not used, the Discharger shall conduct turbidity monitoring at a location representative of the influent to the filtration system.
2. If turbidity exceeds 5 NTU for more than 15 minutes when not coagulating, the Discharger shall add chemicals or divert the wastewater. If turbidity exceeds 10 NTU when not coagulating and the wastewater is not diverted, the Discharger shall collect a sample as soon as practicable for total coliform immediately downstream of the disinfection system and report the duration of the turbidity exceedance.
3. If turbidity exceeds 10 NTU when coagulation is used or 2 NTU when coagulation is not used, and the wastewater is not diverted, the Discharge shall collect a sample as soon as practicable for total coliform after filtration but prior to disinfection and report the duration of the turbidity exceedance.

RECREATIONAL VEHICLE DISCHARGE MONITORING

If recreational vehicle, portable toilet, or similar waste is discharged to the facility in the previous 12 months the Discharger shall perform the following additional monitoring. Samples shall be collected to characterize effluent that will be applied to a disposal area. Wastewater shall be monitored as specified below:

Constituent	Units	Sample Type	Sample Frequency	Reporting Frequency
Zinc	mg/L	Grab	Quarterly	Quarterly
Phenol	mg/L	Grab	Quarterly	Quarterly
Formaldehyde	mg/L	Grab	Quarterly	Quarterly

mg/L denotes milligrams per liter.

LAND APPLICATION AREA (GOLF COURSE) MONITORING

The Discharger shall monitor LAAs when wastewater and/or supplemental irrigation water is applied. If wastewater/supplemental irrigation water is not applied during a reporting period, the monitoring report shall so state. LAA monitoring shall include the following:

Constituent	Units	Sample Type	Sampling Frequenc	Reporting Frequency
Supplemental Irrigation	gpd	Meter [a]	Monthly	Quarterly
Wastewater Flow [a]	gpd	Meter [a]	Monthly	Quarterly
Local Rainfall	Inches	Weather Station	Monthly	Quarterly
Acreage Applied [c]	Acres	Calculated	Monthly	Quarterly
Application Rate	gal/acre/mo [d]	Calculated	Monthly	Quarterly
Soil Erosion Evidence	--	observation	Monthly	Quarterly
Containment Berm Condition	--	observation	Monthly	Quarterly
Soil Saturation/Ponding	--	observation	Monthly	Quarterly
Nuisance Odors/Vectors	--	observation	Monthly	Quarterly
Discharge Off-Site	--	observation	Monthly	Quarterly

gpd denotes gallons per day.

a. Meter requires meter reading, a pump run time meter, or other approved method.
b. Weather station may be site-specific station or nearby governmental weather reporting station.
c. Acreage applied denotes the acreage to which wastewater is applied.
d. Application rate may also be reported as inch/acre/month.

SOLIDS DISPOSAL MONITORING

The Discharger shall report the handling and disposal of all solids (e.g., screenings, grit, sludge, biosolids, etc.) generated at the wastewater system. Records shall include the name/contact information for the hauling company, the type and amount of waste transported, the date removed from the wastewater system, the disposal facility name and address, and copies of analytical data required by the entity accepting the waste. These records shall be submitted as part of the annual monitoring report.

REPORTING

The Discharger shall continue to submit electronic self-monitoring reports (eSMRs) using the State Water Board's California Integrated Water Quality System (CIWQS) Program web site (http://ciwqs.waterboards.ca.gov/). The Discharger shall maintain sufficient staffing and resources to ensure it submits eSMRs during the effective duration of this Order. This includes provision of training and supervision of individuals (e.g., Discharger personnel or

consultant) on how to prepare and submit eSMRs. The CIWQS web site will provide additional directions for eSMR submittal in the event there will be service interruption.

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner that illustrates clearly, whether the Discharger complies with waste discharge requirements.

The Central Valley Water Board have gone to a Paperless Office System. All regulatory documents, submissions, materials, and correspondences other than the self-monitoring reports required by the attached MRP shall be converted to a searchable Portable Document Format (PDF) and submitted electronically. Documents that are less than 50 MBs should be emailed to centralvalleyfresno@waterboards.ca.gov. Documents that are 50 MBs or greater should be transferred to a disc and mailed to the Central Valley Water Board at 1685 “E” Street, Fresno, CA 93706. Until directed otherwise, the NPS shall submit all documents, besides self-monitoring reports, using our Paperless Office System.

All monitoring reports that involve planning, investigation, evaluation, or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the direction of persons registered to practice in California pursuant to Business and Professions Code sections 6735, 7835 and 7835.1.

The Discharger shall submit eSMRs in accordance with the following requirements:

1. When CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data as an attachment under the Attachments tab.

2. The Discharger shall attach all laboratory analysis sheets, including quality assurance/quality control information, with all its eSMRs for which sample analyses were performed.

3. The Discharger shall attach or enter a cover letter with each eSMR. 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 for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation. Violations must also be entered into the CIWQS web site under the Violations tab for the reporting period in which the violation occurred.

4. SMRs must be submitted to the Central Valley Water Board, signed and certified as required by the Standard Provisions, through the CIWQS web site.

A. Quarterly Monitoring Reports

Quarterly reports shall be submitted to the Central Valley Water Board on the **first day of the second month after the quarter ends** (e.g., the January-March Quarterly Report is due by

May 1st). The reports shall bear the certification and signature of the Discharger's authorized representative. At a minimum, the quarterly reports shall include:

1. Results of all required monitoring.
2. Calculation of the annual average nitrogen removal rate using the arithmetic mean of nitrogen in effluent samples collected over the calendar year as a percentage of the arithmetic mean of the values of influent samples collected.
3. A comparison of monitoring data to the discharge specifications, disclosure of any violations of the NOA and/or General Order, and an explanation of any violation of those requirements. (Data shall be presented in tabular format.)
4. Report the running 7-day median calculation and maximum daily total coliform reading for each month.
5. Report the minimum daily chlorine residual and minimum daily chlorine contact time (CT).
6. Report average filter effluent turbidity (24 hour period), 95th percentile filter effluent turbidity (24 hour period), and daily maximum turbidity reading when the plant is operating.

B. Annual Report

Annual Reports shall be submitted to the Central Valley Water Board by **March 1st following the monitoring year**. The Annual Report shall include the following:

1. Tabular and graphical summaries of all monitoring data collected during the year.
2. An evaluation of the performance of the wastewater treatment system, including discussion of capacity issues, nuisance conditions, system problems, and a forecast of the flows anticipated in the next year. A flow rate evaluation, as described in the General Order (Provision E.2.c), shall also be submitted.
3. A discussion of compliance and the corrective action taken, as well as any planned or proposed actions needed to bring the discharge into compliance with the NOA and/or General Order.
4. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program.
5. The name and contact information for the wastewater operator responsible for operation, maintenance, and system monitoring.

The Discharger shall implement the above monitoring program on the first day of the month following the date this MRP is issued.

Ordered by:

for PATRICK PULUPA, Executive Officer

31 August 2018
DATE