NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
PERMIT FACT SHEET
October 6, 2016

Permittee Name:	Bear River Band of Rohnerville Rancheria
Mailing Address:	266 Keisner Rd. Loleta, CA 95551
Facility Location:	382 Keisner Rd. Loleta, CA 95551
Contact Person(s):	Edwin Smith, Director of Environmental Services (707)733-1900 ext. 218, edwinsmith@brb-nsn.gov
NPDES Permit No.:	CA0084282

I. STATUS OF PERMIT

Bear River Band of Rohnerville Rancheria (the "permittee") has applied for a new National Pollutant Discharge Elimination System (NPDES) permit to authorize the discharge of treated effluent from the Tish Non Community Wastewater Treatment Plant to Wetland areas MA2 and MA3, a tributary of the Eel River located in Loleta, California. A complete application was submitted on November 13, 2015. EPA Region IX has developed this permit and fact sheet pursuant to Section 402 of the Clean Water Act, which requires point source dischargers to control the amount of pollutants that are discharged to waters of the United States through obtaining a NPDES permit.

This permittee has been classified as a minor discharger.

II. GENERAL DESCRIPTION OF FACILITY

The permittee is a small tribe located in Northern California. Wastewater is collected from a population of just over 2,000 permanent residents and temporary guests from the Bear River Casino and Hotel.

The new WWTP will replace two existing WWTPs: a ten-year-old SBR plant and the under-sized Tish Non Village WWTP. The new facility will increase the capacity of the Tish Non Village WWTP from 50,000 GPD to 100,000 GPD. Flow from the SBR plant will be instead routed to the upgraded Tish Non WWTP.

The new WWTP will be an Aero-Mod Biological Treatment Facility, consisting of a drum screen and wash press, two first stage aeration tanks, two second stage aeration tanks, two clarifiers, two digesters, a disc filter, and UV Disinfection. Treated wastewater is reclaimed for irrigation. Excess flow is sent to the outfalls.

III. DESCRIPTION OF RECEIVING WATER

The permittee will discharge to two wetland areas, "MA2" and "MA3", located on the Bear River reservation. The wetlands have a potential to flow off the reservation downstream towards the Eel River. Water Quality Standards have been established for the Eel River by the North Coast Regional Water Quality Control Board. The permittee is located in the Lower Eel River Hydrolic Area in the Ferndale Hydrolic Subarea.

Irrigation rate into each of the wetlands is anticipated as follows:

Wetland	Area (acres)	Area (ft2)	Irrigation Rate (gpd)
MA2	2.3	100,188	20,038
MA3	1.8	78,408	15,682

IV. DESCRIPTION OF DISCHARGE

A. Application Discharge Data

The permittee does not have available discharge data since this will be a new discharge. The facility predicts an average daily discharge rate of 50,000 GPD, with seasonal discharge only in the winter months.

B. Recent Discharge Monitoring Report (DMR) Data

New permit; not applicable.

V. SIGNIFICANT CHANGES TO PREVIOUS PERMIT

New permit; not applicable.

VI. DETERMINATION OF NUMERICAL EFFLUENT LIMITATIONS

EPA has developed effluent limitations and monitoring requirements in the permit based on an evaluation of the technology used to treat the pollutant (e.g., "technology-based effluent limits") and the water quality standards applicable to the receiving water (e.g., "water quality-based effluent limits"). EPA has established the most stringent of applicable technology-based or water quality-based standards in the proposed permit, as described below.

A. Applicable Technology-Based Effluent Limitations

Publicly Owned Wastewater Treatment Systems (POTWs)

EPA developed technology-based treatment standards for municipal wastewater treatment plants in accordance with Section 301(b)(1)(B) of the Clean Water Act. The minimum levels of effluent quality attainable by secondary treatment for Biochemical Oxygen Demand (BOD_5), Total Suspended Solids (TSS), and pH, as defined in 40 CFR 133.102, are listed below.

BOD_5

Concentration-based Limits

30-day average – 30 mg/L

7-day average – 45 mg/L

Removal Efficiency – minimum of 85%

TSS
Concentration-based Limits
30-day average – 30 mg/L
7-day average – 45 mg/L
Removal efficiency – Minimum of 85%

pH
Instantaneous Measurement: 6.0 – 9.0 standard units (S.U.)

Technology-based treatment requirements may be imposed on a case by case basis under Section 402(a)(1) of the Act, to the extent that EPA promulgated effluent limitations are inapplicable (i.e., the regulation allows the permit writer to consider the appropriate technology for the category or class of point sources and any unique factors relating to the applicant) (40 CFR 125.3(c)(2)).

B. Water Quality-Based Effluent Limitations

Water quality-based effluent limitations are required in NPDES permits when the permitting authority determines that a discharge causes, has the reasonable potential to cause, or contributes to an excursion above any water quality standard (40 CFR 122.44(d)(1)).

When determining whether an effluent discharge causes, has the reasonable potential to cause, or contributes to an excursion above narrative or numeric criteria, the permitting authority shall use procedures which account for existing controls on point and non-point sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, the sensitivity of the species to toxicity testing (when evaluating whole effluent toxicity) and where appropriate, the dilution of the effluent in the receiving water (40 CFR 122.44(d)(1)(ii)).

EPA evaluated the reasonable potential to discharge toxic pollutants according to guidance provided in the *Technical Support Document for Water Quality-Based Toxics Control* (TSD) (Office of Water Enforcement and Permits, U.S. EPA, March 1991) and the *U.S. EPA NPDES Permit Writers Manual* (Office of Water, U.S. EPA, December 1996). These factors include:

1. Applicable standards, designated uses and impairments of receiving water
2. Dilution in the receiving water
3. Type of industry
4. History of compliance problems and toxic impacts
5. Existing data on toxic pollutants - Reasonable Potential Analysis

1. Applicable Standards, Designated Uses and Impairments of Receiving Water

No water quality standards have been established for Wetland areas MA2 and MA3 by the tribe in the vicinity of the outfall; therefore, EPA is applying downstream water quality standards as specified in the Water Quality Control Plan for the North Coast Region (the "Basin Plan"). The Basin Plan establishes water quality criteria for the following existing beneficial uses in the Ferndale Hydrolic Subarea of the Lower Eel River:

-Municipal and domestic supply

-Agricultural supply
-Industrial service supply
-Groundwater recharge
-Freshwater replenishment
-Navigation
-Water contact recreation
-Non-contact water recreation
-Commercial and sport fishing
-Cold freshwater habitat
-Wildlife habitat
-Rare, threatened, or endangered species
-Migration of aquatic organisms
-Spawning, reproduction, and/or early development
-Shellfish harvesting
-Estuarine habitat
-Native American culture

Potential beneficial uses of the waterbody include:

-Industrial process supply
-Hydropower generation
-Marine habitat
-Aquaculture

The Lower Eel River is listed as impaired, according to the CWA Section 303(d) List of Water Quality Limited Segments, for sedimentation/siltation, aluminum, dissolved oxygen, and temperature. A TMDL for sedimentation/siltation and temperature was developed by US EPA in 2007. Wasteload allocations have been incorporated into the permit for TSS and settleable solids as numeric effluent limitations end-of-pipe. A no net increase in temperature requirement has been incorporated into the permit to comply with the temperature wasteload allocation.

Additionally, the Basin Plan declares that point source waste discharges are prohibited in the Mad and the Eel rivers and their tributaries during the period May 15 through September 30 and during all other periods when the waste discharge flow is greater than one percent of the receiving stream's flow as set forth in NPDES permits. The prohibition is included in the permit.

2. Dilution in the Receiving Water

Although the effluent will undergo natural treatment in the wetland areas prior to reaching the Eel River, effluent limitations are being applied end-of-pipe.

3. Type of Industry

For WWTPs, typical pollutants of concern in untreated and treated domestic wastewater include ammonia, nitrate, dissolved oxygen, pathogens, temperature, pH, oil and grease, and sediment.

4. History of Compliance Problems and Toxic Impacts

Not applicable; new facility.

5. Existing Data on Toxic Pollutants

Not applicable; new facility.

C. Rationale for Numeric Effluent Limits and Monitoring

EPA evaluated the typical pollutants expected to be present in the effluent and selected the most stringent of applicable technology-based standards or water quality-based effluent limitations. Where effluent concentrations of toxic parameters are unknown or toxic pollutants are not reasonably expected to be discharged in concentrations that have the reasonable potential to cause or contribute to water quality violations, EPA may establish monitoring requirements in the permit. Where monitoring is required, data will be re-evaluated and the permit may be re-opened to incorporate effluent limitations as necessary.

Flow

Flow limitations have been established to ensure discharge does not exceed design capacity.

BOD_5 and TSS

Limits for BOD_5 and TSS are established for POTWs as described above and are incorporated into the permit.

Ammonia

Treated and untreated domestic wastewater may contain levels of ammonia that are toxic to aquatic organisms. Ammonia is converted to nitrate during biological nitrification process, and then nitrate is converted to nitrogen gas through biological denitrification process. In 2013, EPA finalized national Aquatic Life Ambient Water Quality Criteria for Ammonia. Due to the potential for ammonia to be present in sanitary wastewater at toxic levels, effluent limitations have been established for ammonia. Because limitations for ammonia are pH and temperature dependent, reporting incorporates use of the Ammonia Impact Ratio ("AIR").

Dissolved Oxygen

The Basin Plan establishes standards for minimum dissolved oxygen specifically for the Eel River Hydrologic Unit. The receiving water is impaired for dissolved oxygen; therefore, effluent limitations have been established for dissolved oxygen.

Bacteria

The Basin Plan establishes fecal coliform standards for water designated for contact recreation. Effluent limitations have been established for fecal coliform consistent with the standards set in the Basin Plan.

Temperature

Natural receiving water temperature standards are established in the *Water Quality Control Plan for Control of Temperature in Coastal and Interstate Waters and Enclosed Bays of California*. Additionally, a TMDL for temperature was established by US EPA. The TMDL indicates that the main cause of the impairment is limited shade cover. A Wasteload Allocation for temperature of zero net increase in temperature was established for all new and existing discharges. The permittee is required to monitor effluent temperature and must comply with the narrative TMDL.

Toxicity

The effluent shall be free of toxicity. This permit incorporates an effluent limit of pass utilizing the Test for Significant Toxicity with no consideration of dilution.

Total Dissolved Solids

The Basin Plan establishes standards for total dissolved solids specifically for the Eel River Hydrologic Unit; therefore, effluent limitations have been established for TDS consistent with the Basin Plan.

Nitrate

The Basin Plan establishes standards for nitrate for domestic or municipal supply. Nitrate is a common pollutant in wastewater discharges; therefore, effluent limitations have been established for nitrate.

Phosphorus

Although the Basin Plan does not establish standards for phosphorus, phosphorus is a common pollutant in wastewater discharges and has the potential to contribute to impairments in downstream waterbodies; therefore, monitoring has been established for phosphorus.

Aluminum

The Basin Plan establishes standards for aluminum for domestic or municipal supply. The receiving water is established as impaired for aluminum. Therefore, without data available for a reasonable potential analysis, an effluent limitation has been established for aluminum.

Oil & Grease

EPA considers oil & grease as a conventional pollutant pursuant to 304(a)(4) of the CWA and 40 CFR 401.16. The Basin Plan indicates that waters shall not contain detectable oil or grease as a visible film, or sheen of oil or petroleum. No effluent data were collected for oil & grease in the previous permit term; therefore, EPA is setting effluent limitations consistent with similar permits for secondary treatment facilities, of 15 mg/l maximum daily and 10 mg/l average monthly.

Sediment

A TMDL has been developed for sediment in the Lower Eel River. Wasteload Allocations for new facilities are 30 mg/L for TSS and 0.1 ml/l for settleable solids, expressed as average monthly concentrations. The WLAs have been expressed in the permit.

pH

The Basin Plan establishes standards for pH between 6.5 and 8.5; accordingly, effluent limitations have been established in the permit.

D. Anti-Backsliding

New permit; not applicable.

E. Antidegradation Policy

EPA's antidegradation policy at 40 CFR 131.12 and the California *Statement of Policy with Respect to Maintaining High Quality Waters* (Resolution No. 68-16) require that existing water uses and the level of water quality necessary to protect the existing uses be maintained.

As described in this document, the permit establishes effluent limits and monitoring requirements to ensure that all applicable water quality standards are met. Although the permittee will not discharge directly to the Eel River (but instead through wetlands located on private property), the permit does not include a mixing zone, therefore these limits will apply at the end of pipe without consideration of dilution in the receiving water. The discharge is prohibited to reach downstream rivers in summer months and the permittee is not allowed to discharge greater than 0.1 million gallons per day.

Due to the low levels of toxic pollutants present in the effluent; the high level of treatment being obtained; the indirect flows, seasonality and low volumes of treated discharge, and water quality-based effluent limitations, the discharge is not expected to adversely affect receiving water bodies or result in any degradation of water quality.

VII. NARRATIVE WATER QUALITY-BASED EFFLUENT LIMITS

The Basin Plan contains narrative water quality standards applicable to the receiving water; therefore, the permit incorporates applicable narrative water quality standards.

VIII. MONITORING AND REPORTING REQUIREMENTS

The permit requires the permittee to conduct monitoring for all pollutants or parameters where effluent limits have been established, at the minimum frequency specified. Additionally, where effluent concentrations of toxic parameters are unknown or where data are insufficient to determine reasonable potential, monitoring may be required for pollutants or parameters where effluent limits have not been established.

A. Effluent Monitoring and Reporting

The permittee shall conduct effluent monitoring to evaluate compliance with the proposed permit conditions. The permittee shall perform all monitoring, sampling and analyses in accordance with the methods described in the most recent edition of 40 CFR 136, unless otherwise specified in the proposed permit. All monitoring data shall be reported on monthly DMRs and submitted quarterly as specified in the proposed permit. All DMRs are to be submitted electronically to EPA using NetDMR.

B. Priority Toxic Pollutants Scan

A Priority Toxic Pollutants scan shall be conducted annually to ensure that the discharge does not contain toxic pollutants in concentrations that may cause a violation of water quality standards. The permittee shall perform all effluent sampling and analyses for the priority pollutants scan in accordance with the methods described in the most recent edition of 40 CFR 136, unless otherwise specified in the proposed permit or by EPA. 40 CFR 131.36 provides a complete list of Priority Toxic Pollutants.

C. Whole Effluent Toxicity Testing

The permit establishes tests for chronic toxicity. Chronic toxicity testing evaluates reduced growth/reproduction at 100 percent effluent. Chronic toxicity is to be reported based on the Test of Significant Toxicity.

IX. SPECIAL CONDITIONS

A. Biosolids

Standard requirements for the monitoring, reporting, recordkeeping, and handling of biosolids in accordance with 40 CFR Part 503 are incorporated into the permit. The permit also includes, for dischargers who are required to submit biosolids annual reports, which include major POTWs that prepare sewage sludge and other facilities designated as "Class 1 sludge management facilities", electronic reporting requirements. Permittees shall submit biosolids annual reports using EPA's NPDES Electronic Reporting Tool ("NeT"). Annual reports are due February 19th of the following year and must be submitted electronically.

B. Pretreatment

As described above, there are no industrial facilities discharging to the WWTP; therefore, there are no pretreatment requirements in this permit.

C. Capacity Attainment and Planning

The permit requires that a written report be filed within ninety (90) days if the average dry-weather wastewater treatment flow for any month exceeds 90 percent of the annual dry weather design capacity of the waste treatment and/or disposal facilities.

D. Development of an Initial Investigation TRE Workplan for Whole Effluent Toxicity

In the event effluent toxicity is triggered from WET test results, the permit requires the permittee to develop and implement a Toxics Reduction Evaluation (TRE) Workplan. For acute toxicity, unacceptable effluent toxicity is found when "Fail" is determined, as indicated by a statistically significant difference between a test sample of 100 percent effluent and a control using a t-test. For chronic toxicity, unacceptable effluent toxicity is found in a single test result greater than 1.6 TU_c, or when any one or more monthly test results in a calculated median value greater than 1.0 TU_c. The draft permit also requires additional toxicity testing if a chronic toxicity monitoring trigger is exceeded. Within 90 days of the permit effective date, the permittee must prepare and submit a copy of its Initial Investigation TRE Workplan (1-2 pages) for acute and chronic toxicity to EPA for review.

D. Seasonal Discharge Prohibition

The Basin Plan does not allow for point source waste discharges into the Eel River from May 15 through September 30. Although discharges on the reservation are not directly subject to the Basin Plan, the permit is written to ensure beneficial uses are protected in downstream waters. Therefore, the permittee is required to ensure that discharges to the wetland do not leave the reservation into the Eel River or its tributaries. The permittee is required to visually check the effluent from the wetlands at the point it leaves the reservation monthly to verify there is no flow.

E. Wetland Restoration Requirements

Due to the discharge's likelihood to impact the receiving restoration wetland, EPA has included additional requirements to ensure that the health of the wetland is not adversely impacted by the discharge. These requirements includes a Contaminants of Emerging Concern Study and a provision that requires the retention of flows during the no-discharge period to not

adversely impact the health of the wetland. The CEC study requires quarterly testing for one year for pollutants identified by the Southern California Coastal Water Research Project ("SCCWRP") as recommended for initial monitoring in freshwater.

X. OTHER CONSIDERATIONS UNDER FEDERAL LAW

A. Impact to Threatened and Endangered Species

Section 7 of the Endangered Species Act of 1973 (16 U.S.C. § 1536) requires federal agencies to ensure that any action authorized, funded, or carried out by the federal agency does not jeopardize the continued existence of a listed or candidate species, or result in the destruction or adverse modification of its habitat.

Using U.S. Fish & Wildlife's Information for Planning and Conservation ("IPaC") Tool, EPA acquired a list of threatened and endangered species with the potential of being in the vicinity of the discharge. The species include:

Birds
Marbled Murrelet (*Brachyramphus marmoratus*)- Threatened
Northern Spotted Owl (*Strix occidentalis caurina*)- Threatened
Western Snowy Plover (*Charadrius alexandrius nivosus*)- Threatened
Yellow-billed Cuckoo (*Coccyzus americanus*)- Threatened

Fishes
Tidewater Goby (*Eucyclogobius newberryi*)- Endangered

Flowering Plants
Beach Layia (*Layia carnosa*)- Endangered
Menzies' Wallflower (*Erysimum menziesii*)- Endangered
Western Lily (*Lilium occidentale*)- Endangered

Mammals
Fisher (*Martes pennanti*)- Proposed Threatened

Critical habitat is established for the marbled murrelet, northern spotted owl, western snowy plover, and yellow-billed cuckoo. The only species with critical habitat in the vicinity of the discharge is the western snowy plover, whose critical habitat includes the riparian habitat immediately upstream of the confluence with the effluent from the permittee's wetland areas. All four species are not believed to be impacted by the discharge beyond speculative incidental contact.

The tidewater goby is a fish species found primarily in waters of coastal lagoons, estuaries, and marshes. Critical habitat is designated in particular portions of the Eel River estuary, where the river meets the Pacific Ocean. Discharge from the facility is unlikely to impact tidewater goby habitat, significantly downstream of the permitted outfall, and therefore is expected to have no effect on the listed species.

The permit authorizes the seasonal discharge of no more than 0.1 MGD of tertiary treated wastewater upstream of the Eel River. The draft permit contains limitations and provisions for

monitoring conventional, toxic, and nonconventional pollutants, in compliance with Federal requirements and the North Coast Regional water Quality Control Board Basin Plan. Requirements are written to ensure an appropriate level of effluent quality that is protective of beneficial uses of the river, including wildlife, as well as rare, threatened, and endangered species.

In consideration all the information available, EPA believes the discharge will have "no effect" on any of the listed species. EPA forwarded a copy of the draft permit, and this fact sheet to USFWS for review and comment.

B. Impact to Coastal Zones

The Coastal Zone Management Act (CZMA) requires that Federal activities and licenses, including Federally permitted activities, must be consistent with an approved state Coastal Management Plan (CZMA Sections 307(c)(1) through (3)). Section 307(c) of the CZMA and implementing regulations at 40 CFR 930 prohibit EPA from issuing a permit for an activity affecting land or water use in the coastal zone until the applicant certifies that the proposed activity complies with the State (or Territory) Coastal Zone Management program, and the State (or Territory) or its designated agency concurs with the certification.

The discharge point is located north of Highway 101, the boundary for the coastal zone, as defined by the California Coastal Commission. Therefore, the proposed discharge and facility do not directly affect land or water use in the coastal zone and no coastal consistency determination is required.

C. Impact to Essential Fish Habitat

The 1996 amendments to the Magnuson-Stevens Fishery Management and Conservation Act (MSA) set forth a number of new mandates for the National Marine Fisheries Service, regional fishery management councils and other federal agencies to identify and protect important marine and anadromous fish species and habitat. The MSA requires Federal agencies to make a determination on Federal actions that may adversely impact Essential Fish Habitat (EFH).

The proposed permit contains technology-based effluent limits and numerical and narrative water quality-based effluent limits as necessary for the protection of applicable aquatic life uses. The proposed permit does not directly discharge to areas of essential fish habitat. Therefore, EPA has determined that the proposed permit will not adversely affect essential fish habitat.

D. Impact to National Historic Properties

Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to consider the effect of their undertakings on historic properties that are either listed on, or eligible for listing on, the National Register of Historic Places. Pursuant to the NHPA and 36 CFR §800.3(a)(1), EPA is making a determination that issuing this proposed NPDES permit does not have the potential to affect any historic properties or cultural properties. As a result, Section 106 does not require EPA to undertake additional consulting on this permit issuance.

XI. STANDARD CONDITIONS

A. Reopener Provision

In accordance with 40 CFR 122 and 124, this permit may be modified by EPA to include effluent limits, monitoring, or other conditions to implement new regulations, including EPA-approved water quality standards; or to address new information indicating the presence of effluent toxicity or the reasonable potential for the discharge to cause or contribute to exceedances of water quality standards.

B. Standard Provisions

The permit requires the permittee to comply with EPA Region IX Standard Federal NPDES Permit Conditions, dated July 1, 2001.

XII. ADMINISTRATIVE INFORMATION

A. Public Notice (40 CFR 124.10)

The public notice is the vehicle for informing all interested parties and members of the general public of the contents of a draft NPDES permit or other significant action with respect to an NPDES permit or application.

B. Public Comment Period (40 CFR 124.10)

Notice of the draft permit will be placed in a daily or weekly newspaper within the area affected by the facility or activity, with a minimum of 30 days provided for interested parties to respond in writing to EPA. After the closing of the public comment period, EPA is required to respond to all significant comments at the time a final permit decision is reached or at the same time a final permit is actually issued.

C. Public Hearing (40 CFR 124.12(c))

A public hearing may be requested in writing by any interested party. The request should state the nature of the issues proposed to be raised during the hearing. A public hearing will be held if EPA determines there is a significant amount of interest expressed during the 30-day public comment period or when it is necessary to clarify the issues involved in the permit decision.

D. Water Quality Certification Requirements (40 CFR 124.53 and 124.54)

For States, Territories, or Tribes with EPA approved water quality standards, EPA is requesting certification from the affected State, Territory, or Tribe that the proposed permit will meet all applicable water quality standards. Certification under section 401 of the CWA shall be in writing and shall include the conditions necessary to assure compliance with referenced applicable provisions of sections 208(e), 301, 302, 303, 306, and 307 of the CWA and appropriate requirements of Territory law.

XIII. CONTACT INFORMATION

Comments, submittals, and additional information relating to this proposal may be directed to:

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XIV. REFERENCES

EPA. 1991. *Technical Support Document for Water Quality-based Toxics Control*. Office of Water, EPA. EPA/505/2-90-001.

EPA. 1996. *Regions IX & X Guidance for Implementing Whole Effluent Toxicity Testing Programs*, Interim Final, May 31. 1996.

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