NPDES Permit No. NN0030339

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Clean Water Act, as amended, (33 U.S.C. Section 1251 et seq; the "Act"),

U.S. Department of the Interior
Bureau of Indian Affairs
Chinle Agency
P.O. Box 6003
Chinle, Arizona 86503

is authorized to discharge treated wastewater from the BIA Lukachukai Community School's wastewater treatment facility, located in Lukachukai, Apache County, Arizona, from a discharge point (Discharge Outfall Number 001),

Latitude: 36E 24' 50"N
Longitude: 109E 13' 55"W

to receiving waters named Tohotso Creek, a tributary to the Chinle Wash, a tributary to the San Juan River, in accordance with the effluent limitations, monitoring requirements, and in the attached 10 pages of EPA Region 9 "Standard Federal NPDES Permit Conditions," dated June 3, 2002.

This permit shall become effective on May 1, 2011.

This permit and the authorization to discharge shall expire at midnight, April 30, 2016 .

Signed this 28th day of April, 2011.

For the Regional Administrator

/s/

Alexis Strauss, Director
Water Division
EPA, Region 9

SECTION A. EFFLUENT LIMITATIONS AND SELF-MONITORING REQUIREMENTS

Based upon the current average capacity of 0.02 MGD, the permittee is authorized to discharge domestic wastewater from Outfall Serial No. 001.

1. The influent shall be sampled prior to it entering the lagoon. The effluent shall be sampled after final treatment prior to discharge to Tohotso Creek, a tributary to Chinle Wash a tributary to the San Juan River.

2. Such discharge shall be limited and monitored by the permittee as follows:

Effluent Parameter	Units	Monthly Average	Weekly Average	Daily Maximum	Monitoring Frequency	Sample Type
Flow	MGD	--[1]	--	--[1]	Once/Discharge	Instantaneous
BOD_5[1, 2]	mg/l	45	65	--	Once/Discharge[6]	Composite
	kg/day	3.38	4.88	--		
TSS[1, 2]	mg/l	90	135	--	Once/Discharge[6]	Composite
	kg/day	6.76	10.14	--		
E. coli	CFU/100 ml	126[3]	--	235[4]	Once/Discharge[6]	Discrete
TRC[5]	µg/l	--	--	11.0	Once/Discharge[6]	Discrete
pH	std. units	between 6.5 to 9.0			Once/Discharge[6]	Discrete

NOTES: 'MGD' indicates units of Million Gallons per Day; 'CFU' is Colony Forming Units.

1. Both the influent and effluent shall be monitored and reported.

2. "BOD_5" = Biological Oxygen Demand (5-day test.) "TSS" = Total Suspended Solids.
For BOD_5 and TSS, the effluent samples shall not exceed 35 percent of the arithmetic mean of the values, by weight, for influent samples collected at approximately the same times during the same period.

3. Geometric mean of samples collected during the calendar month.

4. Single sample maximum.

5. "TRC" = Total Residual Chlorine. If chlorination is used, the permittee shall at all time operate the plant to achieve the lowest possible residual chlorine while still complying with permits limits for TRC and *E coli*.

   TRC shall also be measured once/discharge at the outfall and reported on the Discharge Monitoring Reports.

6. The facility discharge may be intermittent. The monitoring frequency shall be once per discharge and no more than once per month, in the event of a continuous discharge lasting several days.

SECTION B. GENERAL DISCHARGE SPECIFICATIONS

1. The discharge shall be free from pollutants in amounts or combinations that, for any duration:

   a. Cause injury to, are toxic to, or otherwise adversely affect human health, public safety, or public welfare.

   b. Cause injury to, are toxic to, or otherwise adversely affect the habitation, growth, or propagation of indigenous aquatic plant and animal communities or any member of these communities; of any desirable non-indigenous member of these communities; of waterfowl accessing the water body; or otherwise adversely affect the physical, chemical, or biological conditions on which these communities and their members depend.

   c. Settle to form bottom deposits, including sediments, precipitates and organic materials, that cause injury to, are toxic to, or otherwise adversely affect the habitation, growth, or propagation of indigenous aquatic plant and animal communities or any member of these communities; of any desirable non-indigenous member of these communities; of waterfowl accessing the water body; or otherwise adversely affect the physical, chemical, or biological conditions on which these communities and their members depend.

   d. Cause physical, chemical, or biological conditions that promote the habitation, growth or propagation of undesirable, non-indigenous species of plant or animal life in the water body.

   e. Cause solids, oil, grease, foam, scum, or any other form of objectionable floating debris on the surface of the water body; may cause a film or iridescent appearance on the surface of the water body; or that may cause a deposit on a shoreline, on a bank, or on aquatic vegetation.

   f. Cause objectionable odor in the area of the water body.

   g. Cause objectionable taste, odor, color, or turbidity in the water body.

   h. Cause objectionable taste in edible plant and animal life, including waterfowl, that reside in, on or adjacent to the water body.

   i. Cause the growth of algae or aquatic plants that inhibit or prohibit the habitation, growth, or propagation of other aquatic life or that impair recreational uses.

2. All waters of the Navajo Nation shall be free of toxic pollutants from other than natural sources in amounts, concentrations, or combinations which affect the propagation of fish or which of toxic to humans, livestock or other animals, fish or other aquatic organisms,

wildlife using aquatic environments for habitation or aquatic organisms for food, or which will or can reasonably be expected to bioaccumulate in tissues of fish, shellfish, or other aquatic organisms to levels which will impair the health of aquatic organisms or wildlife or result in unacceptable tastes, odors or health risks to human consumers.

3. No person shall place animal carcasses, refuse, rubbish, demolition or construction debris, trash, garbage, motor vehicles, motor vehicle parts, batteries, appliances, tires, or other solid waste into waters of the Navajo Nation or onto their banks.

SECTION C. PERMIT REOPENER

Should any monitoring indicate that the discharge causes, has the reasonable potential to cause, or contributes to excursions above water quality criteria, the permit may be reopened for the imposition of water quality-based limits and/or whole effluent toxicity limits. Also, this permit may be modified, in accordance with the requirements set forth at 40 CFR Parts 122.44 and 124.14, to include appropriate conditions or limits to address demonstrated effluent toxicity based on newly available information, or to implement any EPA-approved new Tribal water quality standards.

SECTION D. BIOSOLIDS REQUIREMENT

1. The permittee shall submit a report 60 days prior to disposal of biosolids. The report shall include:

    a. A map showing biosolids handling facilities (e.g. digesters, lagoons, drying beds, incinerators, location of land application and surface disposal sites).

    b. The quantity of biosolids produced in dry metric tons.

    c. The treatment applied to biosolids including process parameters. For example, if the biosolids is digested, report the average temperature and retention time of the digester. If drying beds are used, report depth of application and drying time. If composting is used, report the temperature achieved and duration. Also, report dewatering methods and percent biosolids of final reports.

    d. Disposal methods (e.g., 50% to land fill, 40% land applied, 10% sold as commercial product.) Report the names and locations of all facilities waste.

    e. If biosolids are to be land-applied, analyses shall be conducted and submitted for Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Molybdenum, Zinc, and Selenium, And for organic-N, Ammonium-N, and nitrate-N. The analyses shall be performed using the methods in “Test Methods for Evaluations Solid Waste, Physical/Chemical Methods” (SW-846) and test results shall be expressed in milligram (mg) pollutant per kilogram(kg) biosolids on a 100% dry weight basis.

f. If biosolids are placed in a surface disposal site, analyses shall be submitted for Arsenic, Chromium, and Nickel. A groundwater monitoring plan shall be submitted or a certification from a groundwater scientist that there is no potential for groundwater contamination.

2. The permittee shall comply with all standards for sewer biosolids use and disposal established under Section 405(d) of the Clean Water Act, including for existing standards under 40 CFR Parts 257, 258 and 503.

3. Reports for biosolids monitoring shall be submitted to:

Regional Biosolids Coordinator
US EPA (WTR-7)
75 Hawthorne Street
San Francisco, CA 94105-3901

SECTION E. MONITORING AND REPORTING

1. Reporting of Monitoring Results

a. The results of all monitoring required by this permit shall be submitted in such a format as to allow direct comparison with effluent limitations and permit requirements. Monitoring results shall be reported during the previous three (3) months on monthly Discharge Monitoring Report ("DMR") forms (EPA No. 3320-1) supplied by the U.S. EPA, to the extent that the results reported may be entered on the forms. The DMR forms shall be submitted quarterly on the 28th day of the month following the previous quarterly reporting period; for example, the three (3) monthly DMR forms for the reporting period January through March shall be submitted by April 28th. In the case of no discharge, the permittee shall submit a DMR indicating no discharge as required. Duplicate, signed copies of these, and all other reports required herein, shall be submitted to the U.S. EPA and the Navajo Nation EPA at the following addresses:

NPDES Data Team
U.S. Environmental Protection Agency
Region IX, Attn: WTR-1
75 Hawthorne Street
San Francisco, CA 94105

Navajo Nation EPA
NPDES Program
P.O. Box 339
Window Rock, AZ 86515

b. The Discharger has the option to submit all monitoring results in the electronic reporting format approved by U.S. EPA. The Discharger may submit DMRs electronically using EPA's NetDMR application. NetDMR is a national tool for regulated Clean Water Act permittees to submit discharge monitoring reports (DMRs) electronically via a secure Internet application to U.S. EPA. By using NetDMR, dischargers can discontinue mailing hard copy forms under 40 CFR

122.41 and 403.12.

c. For effluent analyses, the permittee shall utilize an analytical method with a published Method Detection Limit ("MDL"; as defined in Section G of this permit) that is lower than the effluent limitations (or lower than applicable numeric water quality criteria). If all published MDLs are higher than the effluent limitations or water quality criteria, then the permittee shall utilize the analytical method with the lowest published MDL. The permittee shall ensure that the laboratory utilizes a standard calibration where the lowest standard point is equal to or less than the minimum level ("ML"), as defined in Section G (Definitions) of this permit.

For samples collected during the monthly reporting period, report on the DMR form:

(1) The maximum value, if the maximum value is greater than the ML; or NODI (Q)[a], if the maximum value is greater than or equal to the laboratory's MDL, but less than the ML; or NODI (B)[a], if the maximum value is less than the laboratory's MDL; and

(2) The average value of all analytical results where 0 (zero) is substituted for NODI (B) and the laboratory's MDL is substituted for NODI (Q), if more than one sample is collected during the monthly reporting period.

d. As an attachment to each DMR form submitted during this permit term, the permittee shall report for all parameters with monitoring requirements specified under Section A.3. of this permit: the analytical method number or title, preparation and analytical procedure utilized by the laboratory, and published MDL or ML; the laboratory's MDL, the standard deviation (S) from the laboratory's MDL study, and the number of replicate analyses (n) used to compute the laboratory's MDL; and the ML.

2. <u>Monitoring and Records</u>

In addition to the information requirements specified under 40 CFR 122.41(j)(3), records of monitoring information shall include: Laboratory(ies) which performed the analyses and any comments, case narrative or summary of results produced by the laboratory. These should identify and discuss QA/QC analyses performed concurrently during sample analyses and whether project and 40 CFR Part 136 requirements were met. The summary of results must include information on initial and continuing calibration, surrogate analyses, blanks, duplicates, laboratory control samples, matrix spike and matrix spike duplicate results, sample receipt condition, holding times, and preservation.

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[a] *NODI(Q)* means "No discharge/No data" (not quantifiable); *NODI(B)* means "No discharge/No data" (not detected).

3. <u>Twenty Four-Hour Reporting of Noncompliance</u>

The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances to the following persons or their offices:

Manager CWA Compliance Office U.S. EPA Region 9 (415) 972-3577	Patrick Antonio Navajo Nation EPA (928) 871-7185

If the permittee is unsuccessful in contacting the person above, the permittee shall report by 9 a.m. on the first business day following the noncompliance. A written submission shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including dates and times, and if the noncompliance has not been corrected, the date and/or time it is expected to be corrected; and, steps and/or plans to reduce, eliminate, and prevent reoccurrence of the noncompliance.

SECTION F. INSPECTION AND ENTRY

The permittee shall allow the U.S. EPA, or an authorized representative, upon the presentation of credentials and such other documents as may be required by law, to perform inspections under authority of Section 10: Inspection and Entry of the U.S. EPA Region 9 *Standard Federal NPDES Permit Conditions*, dated June 3, 2002, as attached.

SECTION G. DEFINITIONS

The following definitions shall apply unless otherwise specified in this permit:

1. "Composite samples" means, for flow rate measurements, the arithmetic mean of no fewer than 4 individual measurements taken at equal intervals for one hour or for the duration of discharge, whichever is shorter. A 4-hour composite sample means, for other than flow rate measurements, a combination of four (4) individual portions obtained at equal time intervals over any 4-hour period or for the duration of the discharge, whichever is shorter. The volume of each individual portion shall be directly proportional to the discharge flow rate at the time of sampling. The sampling period shall coincide with the period of maximum discharge flow.

2. "Discrete sample" means any individual sample collected in less than 15 minutes.

3. "Daily discharge" means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar for purposes of sampling. For

pollutants with limitations expressed in terms of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the sampling day. "Daily discharge" determination of concentration made using a composite sample shall be the concentration of the composite sample. When the grab sample technique is used, the "daily discharge" determination of concentration shall be the arithmetic average (weighted by flow value) of all samples collected during that sampling day.

4. "Daily maximum" discharge limitation means the highest allowable "daily discharge" during the calendar month.

5. "Daily average" discharge limitation means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.

6. "Grab" sample, for monitoring requirements, is defined as a single "dip and take" sample collected at a representative point in the discharge stream.

7. "Instantaneous" measurement, for monitoring requirements, is defined as a single reading, observation, or measurement.

8. "Method Detection Limit" (MDL) is the minimum concentration of an analyte that can be detected with 99% confidence that the analyte concentration is greater than zero, as defined by the specific laboratory method listed in 40 CFR Part 136. The procedure for determination of a laboratory MDL is in 40 CFR Part 136, Appendix B.

9. "Minimum Level" (ML) is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all of the method-specified sample weights, volumes, and processing steps have been followed (as defined in EPA's draft National Guidance for the Permitting, Monitoring, and Enforcement of Water Quality-Based Effluent Limitations Set Below Analytical Detection/Quantitative Levels, March 22, 1994). Published method-specific MLs are contained in 40 CFR Part 136, Appendix A, and must be utilized if available. If a published method-specific ML is not available, then an interim ML shall be calculated. The interim ML is equal to 3.18 times the published method-specific MDL rounded to the nearest multiple of 1, 2, 5, 10, 20, 50, etc. (When neither an ML nor an MDL are available under 40 CFR Part 136, an interim ML should be calculated by multiplying the best estimate of detection by a factor of 3.18; when a range of detection is given, the lower end value of the range of detection should be used to calculate the ML.) At this point in the calculation, a different procedure is used for metals, than for non-metals:

a. For metals, due to laboratory calibration practices, calculated MLs may be rounded to the nearest whole number.

b. For non-metals, because analytical instruments are generally calibrated using the ML as the lowest calibration standard, the calculated ML is then rounded to the nearest multiple of (1, 2, or 5) x 10n, where n is zero or an integer. (For example, if an MDL is 2.5 μg/l, then the calculated ML is: 2.5 μg/l x 3.18 = 7.95 μg/l. The multiple of (1, 2, or 5) x 10n nearest to 7.95 is 1 x 101 = 10μg/l, so the calculated ML, rounded to the nearest whole number, is 10 μg/l.)

10. "Monthly average" concentration for *E. coli* means the geometric mean of measurements made during a month. The geometric mean is the nth root of the product of n numbers.

11. "Monthly average" limitation means the highest allowable discharge of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measure during that month.

12. "U.S. EPA" means the United States Environmental Protection Agency.

13. "Weekly average" (or 7-day average) is the arithmetic mean of all samples collected during a consecutive 7-day period or calendar week, whichever is applicable. The 7-day and weekly averages are applicable only to those effluent characteristics for which there are 7-day average effluent limitations. The calendar week which begins on Sunday and ends on Saturday, shall be used for purposes of reporting self-monitoring data on discharge monitoring report forms. Weekly averages shall be calculated for all calendar weeks with Saturdays in the month. If calendar week overlaps two months (i.e., the Sunday is in one month and the Saturday in the following month), the weekly average calculated for that calendar week shall be included in the data for the month that contains month that contains the Saturday.

SECTION H. EPA REGION 9 STANDARD CONDITIONS

See attached 10 pages of U.S. EPA Region 9 "Standard Federal NPDES Permit Conditions," dated June 3, 2002.