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"),

Ramah Navajo School Board, Inc.
Pine Hill School
Navajo Regional Office
P.O. Box 10
Pine Hill, New Mexico 87357

is authorized to discharge treated wastewater from a wastewater treatment facility located in Pine Hill, Cibola County, New Mexico, from Discharge Outfall Serial Number 001,

Latitude: 34° 53' 19" N
Longitude: 108° 25' 09" W

to receiving waters named Terrero Draw, a tributary to Jaralosa Draw, a tributary to Zuni River, a tributary to the Little Colorado River, in accordance with effluent limitations, monitoring requirements and in the attached 15 pages of U.S. EPA Region 9 *Standard Federal NPDES Permit Conditions*, dated July 27, 2011.

This permit shall become effective on _____.

This permit and the authorization to discharge shall expire at midnight, _____.

Signed this_____day of _____.

For the Regional Administrator

Tomas Torres, Director
Water Division
EPA, Region 9

SECTION A. EFFLUENT LIMITATION AND MONITORING REQUIREMENTS

Based upon the current average flow rate of 0.035 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 lagoons. The effluent shall be sampled after final treatment prior to discharge to unnamed dry wash, a tributary to Terrero Draw, a tributary to Jaralosa Draw, a tributary to Zuni River, and an eventual tributary to The Little Colorado 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	Sampling Type
Flow	MGD	- -[1]	--	- -[1]	Once/Discharge	Instantaneous
BOD_5 [1,2]	mg/l	45	65	--	Once/Discharge	Composite
	kg/day	5.9	8.5	--		
TSS [1,2]	mg/l	90	135	--	Once/Discharge	Composite
	kg/day	11.8	17.7	--		
E. coli	#/100 ml	126[3]	--	575[4]	Once/Discharge	Discrete
TDS[5]	mg/l	--	--	--	Once/Discharge	Discrete
TRC[6]	µg/l	--	--	11.0	Once/Discharge	Discrete
Total Ammonia[7]	mg/l	--	--	--	Once/Discharge	Discrete
Ammonia Impact Ratio (AIR)[8]	--	1.0	--	--	Once/Discharge	Discrete
pH[9,10]	std. units	between 6.5 to 9			Once/Discharge	Discrete
Temp[9]	deg. C	--	--	--	Once/Discharge	Discrete

FOOTNOTES: 'MGD' indicates units of Million Gallons per Day

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. Both the plant effluent (Outfall Number 001) and the intake water supply shall be sampled and reported. The incremental increase is the difference between the two sample analyses.

The effluent value, intake water supply value, and incremental increase value shall be reported.

Salinity (TDS) is determined by the "calculated method" (sum of constituents) as described in the latest edition of constituents) as described in the latest edition of "Techniques of Water Resources Investigation of the United States Geological Survey – Methods for Collection and Analysis of Water Samples for Dissolved Minerals and Gases."

6. "TRC" = Total Residual Chlorine.
Limit applies only if chlorination is implemented. If chlorination is used, the permittee shall at all times operate the plant to achieve the lowest possible residual chlorine while still complying with permit limits for *E. coli*.

   TRC shall also be measured once/discharge at the outfall and reported on the Discharge Monitoring Reports, along with an estimate of the natural flow of the stream.

7. For total ammonia (in mg-N/liter), the Navajo Nation Surface Water Quality Standards specify ammonia limitations for aquatic and wildlife (warm water habitat) for support and propagation of animals, plants, or other organisms. (See attached Appendix A for the total ammonia standards for chronic standards for aquatic and wildlife habitat, consistent with the 2007 NNSWQS and the 2010 *draft* NNSWQS revisions, page 37.) The criteria for ammonia are pH and temperature dependent and field measurements shall all be taken concurrently.

8. The Ammonia Impact Ratio (AIR) is calculated as the ratio of the measured ammonia and the ammonia limit as determined by the concurrent measurement of pH and temperature. See attached Appendix B for sample log to help calculate and record the AIR values.

9. Temperature and pH measurements shall be taken concurrently with measurements for ammonia at the same location as the water samples destined for the laboratory analysis of ammonia.

10. Effluent pH units are based on the numeric standards for aquatic, wildlife and livestock, consistent with the 2007 NNSWQS and the *draft* 2010 NNSWQS revisions.

SECTION B. GENERAL DISCHARGE SPECIFICATIONS

1. All Waters of the Navajo Nation 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

1. At this time, there is no reasonable potential to establish any other water quality-based limits. Should any monitoring indicate that the discharge cause, has the reasonable potential to cause, or contributes to excursion above a water quality criteria, the permit may be reopened for the imposition of water quality-based limits and/or whole effluent toxicity limits. In accordance with 40 CFR 122 and 124, this permit may be modified to include appropriate conditions or effluent limits, monitoring, or other conditions to implement new regulations, including U.S. EPA-approved new Tribal 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 exceedences of water quality standards.

2. In accordance with 40 CFR 122.44(c), EPA may promptly modify or revoke and reissue any permit issued to a treatment works treating domestic sewage (including "sludge only facilities") to incorporate any applicable standard for sewage sludge use or disposal promulgated under section 405(d) of the CWA, if the standard for sewage sludge use or disposal is more stringent than any requirements for sludge use or disposal in the permit, or controls a pollutant or practice not limited in the permit.

SECTION D. SEWAGE SLUDGE REQUIREMENTS

1. The permittee shall submit a report to USEPA and NNEPA within 90 days of permit issuance prior with an estimate of the quantity of sewage sludge currently on-site (in dry metric tons), and a projection of when sewage sludge shall next be removed.

2. At least 120 days prior to removing sewage sludge for use or disposal, the permittee shall submit a plan describing the quantity of sewage sludge (in dry metric tons) to be removed, mechanisms for removing, and a proposed sampling plan for pollutants regulated under the use or disposal option being selected. Upon approval of this plan by USEPA and NNEPA, the permittee shall have the sewage sludge removed as described.

3. The permittee shall comply with all applicable requirements of Section 405(d) of the Clean Water Act, and 40 CFR Part 258 (for sewage sludge sent to a municipal landfill) and 40 CFR Part 503 (for sewage sludge placed in a sludge-only surface disposal site, land applied as fertilizer, used in land reclamation, or incinerated.) The permittee shall be responsible for assuring that all sewage sludge produced at the facility is used or disposed of in accordance with these rules, whether the permittee uses or disposes of the sewage sludge directly, or transfers it to another party for further treatment, use, or disposal. The permittee shall be responsible for informing contractors of the requirements that they must meet under these rules, and providing any required monitoring results to the contractor.

4. No sewage sludge shall be allowed to enter wetlands or other waters of the United States, or to contaminate groundwater. Any sewage sludge treatment, disposal, or storage site shall have facilities adequate to divert surface runoff from adjacent areas, to protect the site boundaries from erosion, and to prevent any conditions that would cause drainage from the materials in the site to escape from the site. Adequate protection is defined as protection from at least a 100-year storm and from the highest tidal stage that may occur.

5. Sewage sludge handling operations shall be performed in a manner as to minimize nuisances such as objectionable odors or flies.

6. The permittee shall assure that haulers transporting sewage sludge off site for further treatment, use, or disposal take all necessary measures to keep the sewage sludge contained within the hauling vehicle.

7. Sewage sludge reports shall be submitted to:

Regional Biosolids Coordinator (WTR 2-3)
U.S. Environmental Protection Agency
Water Division
NPDES Permits Section
75 Hawthorne Street
San Francisco, CA 94105-3901

Patrick Antonio
Navajo Nation EPA
WQ/NPDES Program
P.O. Box 339
Window Rock, AZ 86515

SECTION E. MONITORING AND REPORTING

1. Reporting of Monitoring Results

a. Submittal of DMRs and the Use of NetDMR

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 Director, to the extent that the results reported may be entered on the forms. The DMR forms shall be submitted quarterly no later than 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 no later than 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 Director and the Navajo Nation EPA at the following addresses:

NPDES Data Team
U.S. Environmental Protection Agency
Enforcement Division
Information Management Section (ENF 4-1)
75 Hawthorne Street
San Francisco, CA 94105

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

For a period of six (6) months from the effective date of the permit, the permittee may submit monitoring results in DMRs to EPA in hard copy form or in DMRs electronically submitted using NetDMR. NetDMR is a web-based tool that allows permittees to electronically submit DMRs and other required reports via a secure internet connection. NetDMR is accessed from: http://www.epa.gov/netdmr.

Beginning no later than six months after the effective date of the permit, the permittee shall begin reporting monthly, quarterly, yearly, etc. monitoring data using NetDMR, unless the facility is able to demonstrate a reasonable basis, such as technical or administrative infeasibility, that precludes the use of NetDMR for submitting DMRs. The permittee shall continue to use the NetDMR tool for reporting all discharge monitoring data. By submitting reports using NetDMR, the permittee will no longer be required to submit hard copies of DMRs to EPA under 40 CFR 122.41 and 403.12.

b. Submittal of Reports as NetDMR Attachments

After the permittee begins submitting DMR reports to EPA electronically using NetDMR, the permittee shall electronically submit all reports to EPA as NetDMR attachments rather than as hard copies, unless otherwise specified in this permit. A report submitted electronically as a NetDMR attachment shall be considered timely if it is electronically submitted to EPA using NetDMR with the next DMR due following the particular report due date specified in this permit.

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 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 USEPA and the Navajo Nation EPA at the following addresses:

NPDES Data Team (ENF 4-1)
Information Management Section
Enforcement Division
U.S. Environmental Protection Agency Region 9
75 Hawthorne Street
San Francisco, CA 94105

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

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.

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

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. Monitoring and Records

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.

3. Twenty Four-Hour Reporting of Noncompliance

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 Wastewater Enforcement Office (ENF 3-1) 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;

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

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 Director, 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 EPA Region 9 *"Standard Federal NPDES Permit Conditions"*, dated July 27, 2011, as attached.

SECTION G. DEFINITIONS

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

1. A "composite sample" means a time-proportional mixture of not less than eight discrete aliquots obtained at equal time intervals (e.g., 24-hour composite means a minimum of eight samples collected every three hours.) The volume of each aliquot shall be directly proportional to the discharge flow rate at the time of sampling, but not less than 100 ml. Sample collection, preservation, and handling shall be performed as described in the most recent edition of 40 CFR 136.3, Table II. Where collection, preservation, and handling procedures are not outlined in 40 CFR 136.3, procedures outlined in the 18th edition of "*Standard Methods for the Examination of Water and Wastewater*" shall be used.

2. A "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.

3. A "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. A "daily maximum discharge effluent limitation" means the highest allowable "daily discharge" during the calendar month.

5. A "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. A "discrete sample" means any individual sample collected in less than 15 minutes.

7. The "USEPA" means the United States Environmental Protection Agency.

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

9. An "instantaneous" measurement, for monitoring requirements, is defined as a single reading, observation, or measurement.

10. The "method detection limit" or "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.

11. The "minimum level" or "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 = 10 μg/l, so the calculated ML, rounded to the nearest whole number, is 10 μg/l.)

12. A "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.

13. A "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.

14. The "EPA Director" means EPA Region 9's Water Division Director.

15. A "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 IX STANDARD CONDITIONS

See the attached 15 pages of EPA Region 9 "Standard Federal NPDES Permit Conditions," dated July 27, 2011.

APPENDIX A

Total Ammonia Limit
Chronic Standard for Aquatic and Wildlife Habitat

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(From 2007 Navajo Nation Surface Water Quality Standards and Draft 2010 NNSWQS Table 206.3 Maximum Total Ammonia Concentration)

Total Ammonia Limit (in mg-N/liter)											
pH	Temperature in Degrees Celsius (ºC)										pH
	0	14	16	18	20	22	24	26	28	30	
6.5	6.67	6.67	6.06	5.33	4.68	4.12	3.62	3.18	2.80	2.46	6.5
6.6	6.57	6.57	5.97	5.25	4.61	4.05	3.56	3.13	2.75	2.42	6.6
6.7	6.44	6.44	5.86	5.15	4.52	3.98	3.50	3.07	2.70	2.37	6.7
6.8	6.29	6.29	5.72	5.03	4.42	3.89	3.42	3.00	2.64	2.32	6.8
6.9	6.12	6.12	5.56	4.89	4.30	3.78	3.32	2.92	2.57	2.25	6.9
7.0	5.91	5.91	5.37	4.72	4.15	3.65	3.21	2.82	2.48	2.18	7.0
7.1	5.67	5.67	5.15	4.53	3.98	3.50	3.08	2.70	2.38	2.09	7.1
7.2	5.39	5.39	4.90	4.31	3.78	3.33	2.92	2.57	2.26	1.99	7.2
7.3	5.08	5.08	4.61	4.06	3.57	3.13	2.76	2.42	2.13	1.87	7.3
7.4	4.73	4.73	4.30	3.78	3.32	2.92	2.57	2.26	1.98	1.74	7.4
7.5	4.36	4.36	3.97	3.49	3.06	2.69	2.37	2.08	1.83	1.61	7.5
7.6	3.98	3.98	3.61	3.18	2.79	2.45	2.16	1.90	1.67	1.47	7.6
7.7	3.58	3.58	3.25	2.86	2.51	2.21	1.94	1.71	1.50	1.32	7.7
7.8	3.18	3.18	2.89	2.54	2.23	1.96	1.73	1.52	1.33	1.17	7.8
7.9	2.80	2.80	2.54	2.24	1.96	1.73	1.52	1.33	1.17	1.03	7.9
8.0	2.43	2.43	2.21	1.94	1.71	1.50	1.32	1.16	1.02	0.897	8.0
8.1	2.10	2.10	1.91	1.68	1.47	1.29	1.14	1.00	0.879	0.773	8.1
8.2	1.79	1.79	1.63	1.43	1.26	1.11	0.973	0.855	0.752	0.661	8.2
8.3	1.52	1.52	1.39	1.22	1.07	0.941	0.827	0.727	0.639	0.562	8.3
8.4	1.29	1.29	1.17	1.03	0.906	0.796	0.700	0.615	0.541	0.475	8.4
8.5	1.09	1.09	0.990	0.870	0.765	0.672	0.591	0.520	0.457	0.401	8.5
8.6	0.920	0.920	0.836	0.735	0.646	0.568	0.499	0.439	0.386	0.339	8.6
8.7	0.778	0.778	0.707	0.622	0.547	0.480	0.422	0.371	0.326	0.287	8.7
8.8	0.661	0.661	0.601	0.528	0.464	0.408	0.359	0.315	0.277	0.244	8.8
8.9	0.565	0.565	0.513	0.451	0.397	0.349	0.306	0.269	0.237	0.208	8.9
9.0	0.486	0.486	0.442	0.389	0.342	0.300	0.264	0.232	0.204	0.179	9.0

NOTES:

1. pH and temperature are field measurements taken at the same time and location as the water samples destined for the laboratory analysis of ammonia.

2. If the field measured pH value falls between the tabular values, round the field measured value according to standard scientific rounding procedures to the nearest tabular value, and then determine the ammonia standard using linear interpolation when the temperature value is between the values provided in the table.

APPENDIX B

Ammonia Impact Ratio (AIR)
Sample AIR Data Log

AIR = Ratio of Measured Ammonia Value over Ammonia Limit
(Effluent Ammonia divided by Ammonia Limit)

A	B	C	D	E	F
Date of Sample	**Ammonia Value In Effluent (mg/L N)**	**Effluent pH**	**Effluent Temperature (Celsius)**	**Ammonia Limit as Determined from Appendix A**	**AIR Value (Column B/Column E)**

Please copy and complete for each month of each year for permit term. Attach any additional pages as necessary.

Signature of Authorized Representative: _____