STATEMENT OF BASIS

FOR THE REISSUANCE OF A NPDES PERMIT

U.S. Environmental Protection Agency
Region 5, NPDES Programs Branch - WN-15J
77 West Jackson Boulevard
Chicago, Illinois 60604
(312) 886-6106

Public Notice No.: 17-07-01-A

Public Notice Issued On: July 24, 2017

Comment Period Ends: August 23, 2017

Permit No.: MI-0059650-2 (REISSUANCE)

Application No.: MI-0059650-2

Name and Address of Applicant:

Hannahville Indian Community
Water Operations Department
N14911 Hannahville B1 Road
Wilson, Michigan 49896

Name and Address of Facility Where Discharge Occurs:

Hannahville Indian Community
Reverse Osmosis Plant
W352 Wandahsega Lane
Harris Township, Michigan
Hannahville Indian Reservation
Menominee County
Latitude: 45.00 deg. 41.00 min. 93.00 sec.
Longitude: 87.00 deg. 41.00 min. 25.00 sec.

Receiving Water: Unnamed wetland which flows into Depas Creek

Treatment Facility Description

The above named applicant has applied for an NPDES Permit to discharge into the designated receiving water. The facility is located within the exterior boundaries of the Hannahville Indian Reservation. The permit will be issued by the U.S. Environmental Protection Agency under the authorities of the Clean Water Act.

The permittee operates a water treatment plant consisting of three identical treatment trains consisting of dual media filters followed by a 5-micron filter followed by reverse osmosis. Chlorine is added to the raw water before the dual media filter and dechlorinated prior to the 5-micron filter. Backwash water from the filters (dual media and 5 micron) is discharged by sewer to the Hannahville Indian Community Wastewater Treatment Plant for treatment. Concentrate from the three reverse osmosis units runs through a 5,000-gallon equalization tank before

discharging to accommodate sampling. Up to 100,000 gallons per day (gpd) total can be discharged to the wetland via the same outfall pipe as the Hannahville Indian Community Wastewater Treatment Plant discharge. The wetland eventually flows into Depas Creek.

The draft permit requires the applicant to meet the following effluent limitations:

Parameter	Date	Monthly average	Weekly Average	Daily Maximum	Daily Minimum
Flow	All year	Report	Report	---	---
Total Iron	All Year	5 mg/L	---	10 mg/L	---
Total Suspended Solids	All Year	30 mg/L	---	50 mg/L	---
Total Chlorides (mg/L)	All Year	---	---	Report	---
Total Dissolved Solids (mg/L)	All Year	---	---	Report	---
Gross Alpha Particles (pCi/L)	All Year	---	---	Report	---
Total Radium (pCi/L)	All Year	---	---	Report	---
Total Sulfate (mg/L)	All Year-	---	---	Report	---
Total Residual Chlorine	All Year	11 ug/L	---	19 ug/L	---
pH	All Year	---	---	9.0 S.U.	6.5 S.U.

Loading limits in the permit were calculated using the following formula based on the design flow:

0.10 mgd x limit (mg/l) x 8.34 = Loading (lbs/d)

Section 401 Water Quality Certification

EPA is the appropriate authority for purposes of certifying the proposed discharge under Section 401 of the Clean Water Act. Section 401 certification is not needed from the state or the Hannahville Indian Community as neither has federally approved water quality standards applicable to the receiving water at the point of discharge, however as stated above, EPA believes the effluent limitations included in the draft permit meet state water quality standards at the reservation boundary.

ESA and NHPA Compliance

EPA believes it has satisfied its requirements under the Endangered Species Act (ESA) and the National Historical Preservation Act (NHPA). The facility was expanded during the last permit term using some federal funds from the US Department of Agriculture. To receive federal funding, the permittee conducted an environmental assessment and had to satisfy ESA and NHPA requirements. For this permit term, the facility does not plan on any new construction and therefore we believe the reissuance of the permit and the continued operation of the facility

and its associated discharge will have no effect on endangered or threatened species or their critical habitat and will have no impact on historical, archeological, or cultural resources.

Basis for Permit Requirements

The limits were developed to ensure compliance with 40 CFR Part 131, protection of human health and EPA's water quality criteria, and protection of Michigan's water quality standards where they are applicable. EPA does not have applicable effluent guidelines for this type of facility. We looked at the NPDES General Permit for potable water supply wastewater discharges (MIG640000) issued by the Michigan Department of Environmental Quality as a guide in the development of the permit. The General Permit covers similar water treatment systems used by the permittee. The limits in the draft permit have been carried over from the previous permit as we believe they are still applicable. The permittee has been in compliance with these limits. Monitoring for total radium, gross alpha radiation and total dissolved solids are also included in the permit since the facility uses reverse osmosis to remove radionuclides from groundwater. This data will be used to determine if limits are needed in future permits.

Electronic Reporting

EPA finalized Electronic Reporting Rule on December 21, 2015. Individual permit holders were required to submit DMRs electronically beginning no later than December 21, 2016. The permit includes language on electronic submission of DMRs. The permittee has been submitting its DMRs electronically.

Asset Management – Operation & Maintenance Plan

Regulations regarding proper operation and maintenance are found at 40 CFR § 122.41(e). These regulations require, "that the permittee shall at all times operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of the permit." The treatment plant and the distribution system are included in the definition of "facilities and systems of treatment and control" and are therefore subject to the proper operation and maintenance requirements of 40 CFR § 122.41(e).

Similarly, a permittee has a "duty to mitigate" pursuant to 40 CFR §122.41(d), which requires the permittee to "take all reasonable steps to minimize or prevent any discharge in violation of the permit which has a reasonable likelihood of adversely affecting human health or the environment."

The draft permit requirements are the first steps of an asset management program which contains goals of effective performance, adequate funding, adequate operator staffing and training. Asset management is a planning process that ensures that you get the most value from each of your assets and have the financial resources to rehabilitate and replace them when necessary, and typically includes five core elements which identify: 1) the current state of the asset; 2) the desired level of service (e.g., per the permit, or for the customer); 3) the most critical asset(s) to sustain performance; 4) the best life cycle cost; and 5) the long term funding strategy to sustain service and performance.

EPA believes that requiring a certified wastewater operator and adequate staffing is also essential to ensure that the treatment facilities will be properly operated and maintained. Mapping the distribution system with the service area will help the operator better identify the assets that he/she is responsible for and consider the resources needed to properly operate and maintain them. This will help in the development of a budget and a user rate structure that is necessary to sustain the operation. The development and implementation of a proactive preventive maintenance program is one reasonable step that the permittee can take to demonstrate that it is at all times, operating and maintaining all the equipment necessary to meet the effluent limitations of the permit.

Special Conditions

- Electronic reporting is required.

- The permit requires the development and implementation of an Operation & Maintenance Plan. The plan covers the use of a certified operator to oversee the facility, having adequate staff to help ensure compliance with the permit, mapping the distribution system, developing a preventive maintenance program and other items.

- Must submit a request to discharge water treatment additives.

Significant Changes from the Previous Permit

The draft permit contains the following changes from the last issued permit:

1. Added 'Summary of Regular Reporting'.

2. The treatment plant description has been revised.

3. Reduced monitoring frequency for radionuclides.

4. Requirements for submission of DMRs electronically (Part I.B.2).

5. Requirements related to Asset Management have been added (Part I.B.3).

6. The "Standard Conditions" have been revised (Part II).

The permit is based on an NPDES application dated November 18, 2016, and additional documents found in the administrative record.

This permit will be effective for approximately five years from the date of issuance as allowed by regulation.

Written by: John Colletti
U.S. EPA, Region 5, WN-15J
77 West Jackson Blvd.
Chicago, IL 60604
(312) 886-6106

July 2017