

# STATEMENT OF BASIS

## FOR THE REISSUANCE OF A NPDES PERMIT

U.S. Environmental Protection Agency  
Region 5, Permits Branch - WP-16J  
77 West Jackson Boulevard  
Chicago, Illinois 60604  
(312) 886-6106

**Public Notice No.: 22-09-01-A**

**Public Notice Issued On: September 16, 2022**

**Comment Period Ends: October 17, 2022**

**Permit No.: MI-0059650-3 (REISSUANCE)**

**Application No.: MI-0059650-3**

**Name and Address of Applicant:**

**Name and Address of Facility  
Where Discharge Occurs:**

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

Hannahville Indian Community  
Reverse Osmosis Plant  
W352 Wandahsega Lane  
Harris Township, Michigan  
Hannahville Indian Reservation  
Menominee County  
Latitude: 45° 41' 93" N  
Longitude: 87° 41' 25" W

**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 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:

$$0.10 \text{ mgd} \times \text{limit (mg/l)} \times 8.34 = \text{Loading (lbs/d)}$$

### **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 within the Hannahville Reservation and will be unless and until the Tribe is approved for Treatment as a State (TAS) for CWA 303 and 401. EPA is in the process of certifying pursuant to Section 401. EPA believes the effluent limitations included in the draft permit meet tribal and state water quality requirements where they are applicable. The draft certification is available for review. We have discussed our reissuance of the permit with the Hannahville Indian Community and EGLE.

### **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. To ensure the permit limits comply with Michigan's water quality standards, we looked at the NPDES General Permit for potable water supply wastewater discharges (MIG640000) issued on January 22, 2020 by the Michigan Department of Environment, Great Lakes and Energy (EGLE) as a guide in the development of the permit. The general permit covers similar

water treatment systems used by the permittee. A copy of the general permit and the basis for the limits within the permit can be found in the Administrative Record. 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.

### **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 continued 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. Changes to EPA Region 5 mailing addresses have been made throughout the permit.
2. Updated ‘Summary of Regular Reporting’.
3. The electronic Reporting requirements have been updated. (Part I.B.2).
4. Additional requirements related to Asset Management have been added. (Part I.B.3).
5. The “Standard Conditions” have been revised (Part II).

The permit is based on an NPDES application dated March 16, 2022, 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, WP-16J  
77 West Jackson Blvd.  
Chicago, IL 60604  
(312) 886-6106

September 2022